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ABSTRACT

This study was designed to determine the effectiveness of 18 selected lessons from Dupont's Toward Affective; Development (TAD) program for creating an awareness in students of alternatives to psycho-social situations. Using a sample of 60 subjects randomly selected from 111 sixth-grade students in northwest Wisconsin, two experimental and two control groups were formed. The experimental groups were presented with lessons from the TAD program. A Solomon Pour-Group design was used. Pre- and posttesting involved presenting three discussion pictures which depict different psycho-social conflict situations involving dependency and aggression. Individual responses to the pictures were scored. Posttest data showed a positive effect of treatment upon the ability of students participating in the TAD program to generate alternatives to psycho-social situations. Thus, the hypothesis that the experimental groups would make positive gains over the control groups in developing alternatives to psycho-social situations proved true. Analysis of variance indicated that some of the participants minimized the use of responses already given in the pretest situation. Limitations of the study include the location and characteristics of the community, sample size and description, and the newness of the materials. A review of related literature and research and the implications of the findings are included in the document. (Author/ND)

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CREATING AN AWARENESS OF ALTERNATIVES TO PSYCHO-SOCIAL SITUATIONS

IN ELEMENTARY SCHOOL CHILDREN

by

John E. LeCapitaine

US DEPARTMENT OF HEALTH EDUCATION & WELFARE NATIONAL INSTITUTE OF EDUCATION

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The School of Graduate Studies of University of Wisconsin-Eau Claire

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1975

ABSTRACT

CREATING AN AWARENESS OF ALTERNATIVES TO PSYCHO-SOCIAL SITUATIONS IN ELEMENTARY SCHOOL CHILDREN

This study was designed to determine the effectiveness of selected lessons from Dupont's Toward Affective Development program in creating an awareness of alternatives to psycho-social situations. Utilizing a sample consisting of 60 subjects randomly selected from a sixth grade population of 111 pupils, the experimenter randomly formed four groups including two treatment and two nontreatment groups. Treatment consisted of the presentation of eighteen selected lessons from the TAD program.

Individual pretest and posttest measures were conducted in consonance with the Solomon Four-Group design. These measures consisted of the presentation of three discussion pictures depicting different psycho-social situations. Individual responses to these pictures were scored according to the devised manual.

Posttest data subjected to a three-way analysis of variance clearly indicated the positive effect of treatment upon the ability to generate alternatives to psycho-social situations as depicted in the posttest measures (F=194.10, df=1/168, p<.001). The hypothesis that the experimental groups would manifest positive gains over the control groups was accepted.

The three-way analysis of variance also indicated that the pretest had a negative effect on posttest measures. Apparently, some of the participants in the pretest groups tended to minimize the utilization of responses already given in the pretest situation.

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Chapter 1

INTRODUCTION

As a result of recent emphasis on psycho-affective development, educators have been concerned with the components of psycho-affective learning (Henderson, 1972). Focussing on such concepts as individuality, freedom, feeling, value, creativity, openness, choice, and conflict, proponents of psycho-affective education are stressing the significance of self-exploration and social collaboration (Dupont, 1974).

A crucial goal of psycho-affective learning and an integral part of the self-exploratory process, appears to be the fostering of an ability, on behalf of the child, to recognize various alternatives to psycho-social situations. The development of this ability may enhance an awareness of individual responsibility for actions based on the choice of particular alternatives.

The significance of the ability to recognize various fulternatives to psycho-social situations is further generated by the declaration of Morris (1966): "And to live without alternatives is to live without freedom..." (p. 47). To have an awareness of alternatives appears to be a prerequisite condition for individual choice and individual choosing. Furthermore, it appears that awareness, choosing, and freedom, "all finally come together in the awareness of one's own freedom in the act of choosing" (Morris, 1966, p.47).

Statement of the Problem

The problem is that there is a dearth of programs specifically designed to foster the ability of elementary school children to recognize alternatives to psycho-social situations; and in programs which have alluded to the development of this ability, there is a paucity of research to determine their effectiveness.

Purpose of the Study

A program consisting of tasks designed to depict various psycho-social situations may foster an awareness of alternatives on behalf of the child. It is the purpose of this study to determine the effectiveness of selected lessons from Dupont's Toward Affective Development program in creating an awareness of alternatives to psycho-social situations in elementary school children.

Delimitiations

The particular delimitations of this study are in reference to the location and characteristics of the community, sample size and description, and the newness of the materials.

The community from which the subjects were selected is located in Northwest Wisconsin. The population consists of approximately 3,000 people, characteristically including low-to-middle class white Anglo-Saxons and Native Americans.

The sample under study was selected from a sixth-grade population at an elementary school consisting of three educational units. The sample size was limited to 60 subjects because of the nature of the program and the individualized procedure of treatment.

Because the TAD program is relatively new, little research has been conducted on its effectiveness accross large samples of the population. Consequently, comparative analyses will not be possible.

Definition of Terms

Affect. Affect refers to a reflexive arousal accompanied by physiological change and a tendency toward action (Dupont, 1975).

Affective development. Affective development pertains to age-developmental trends in the differentiation and integration of affective responses and the stimuli which elicit them. Affective development, then implies a structural or organizational component; it implies irreversible structural transformations in affective responses. As so conceived, the structural development of affect has basic dimensions in common with the structural development of cognition (Dupont, 1975).

<u>Affectivity</u>. Affectivity refers to changes or alterations of affect (Dupont, 1975).

<u>Alternatives</u>. Alternatives implies two or more courses, propositions, or things, to be chosen. Alternate reactions or alternate courses of action refer to specific observable actions or reactions.

<u>Psycho-affective learning</u>. Psycho-affective learning consists of the accumulation of knowledge or understanding, that relates to human behavior or functioning, with special focuss on the affect involved in all thought, feeling and behavior. Psycho-affective development assumes that there are identifiable stages which relate to this knowledge or understanding (Dupont, 1975).

<u>Psycho-social situations</u>. A psycho-social situation refers to a social situation and the psychological factors that are involved in the interaction between the organism and his evironment.

REVIEW OF RELATED LITERATURE AND RESEARCH

Relatively little research has been conducted in the area involving individual awareness of alternatives to psycho-social situations. This chapter will be devoted toward a review of two programs which appear to be most instrumental in fostering an awareness of alternatives to psycho-social situations: Spivack and Shure's Training program (1974) and Dupont's Toward Affective Development program (1974).

Recent literature by Spivack and Shure (1974) suggests that an ability to generate alternative solutions to psycho-social situations is considered to be part of an interpersonal problemsolving process. The development of such an ability appears to have significant effects on the mental health and the adjustment of the individual (Spivack and Shure, 1974; Levinson and Neuringer, 1971; Shure, Spivack, and Jaeger, 1971).

A study conducted by Shure, Spivack, and Jaeger (1971) investigated cognitive interpersonal problem-solving skills among disadvantaged four-year olds, and the relationship of these skills to behavioral adjustment in the preschool environment. Utilizing the Preschool Interpersonal Problem Solving Test (PIPS) and a behavioral rating scale, sixty-two black children from the inner-city area of Philadelphia were tested to determine the child's ability to provide alternative solutions to a set of two interpersonal problems. The data indicated that the ability to produce alternative solutions

was significantly related to behavioral adjustment. The authors concluded that an individual who has an opportunity to choose among alternative solutions will be less subjected to the frustrations of continued failure and ensuing maladaptive behaviors. This investigation helped to provide a base for a training program later developed by Spivack and Shure (1974).

Spivack and Shure's Training Program

Spivack and Shure (1974) have developed a training program for four-year old children, the goal of which is teaching the children personal and interpersonal problem-solving skills which may be utilized in typical problem situations.

Program development. In developing their Training program, the authors first conducted studies with preadolescents, adolescents, and adults on order to designate certain types of thinking skills which were lacking in poorly adjusted individuals. The results of these investigations indicated that certain thought processes (involving interpersonal problem sensitivity, the ability to generate alternative courses of action, the ability to conceptualize strategies in solving problems, and senstivity to consequences of human behaviors) are directly related to human adjustment. The authors concluded that a key ability across all ages is "the ability to imagine alternative solutions to problems" (Spivack and Shure, 1974, p.20).

<u>Final Program Evaluation</u>. A comprehensive, final program evaluation reported by Shure and Spivack (1974) confirmed previous studies.

A total of 219 children from twenty Head Start classes in inner-city Philadelphia participated in this evaluation. A group of 113

children were trained over a twelve week period while the remaining 106 children served as the control group. Behavioral adjustment was assessed by teachers using rating scales, classifying the child as impulsive, inhibited, or behaviorally adjusted. Alternative thinking capacity was measured by the Preschool Interpersonal Problem Solving Test. The groups which participated in the Training program significantly increased their ability to generate alternative solutions to problems (F=106.90, p<.001). In addition, prior to the Training program, 36 percent of the trained group were rated as adjusted; while posttraining ratings demonstrated an increase to 71 percent (CR=5.23, p<.01) (Spivack and Shure, 1974).

Principles Underlying the Training Program. "The structured training program for young children has an underlying approach: to teach children how to think, not what to think..." (Spivack and Shure, 1974). The authors suggest seven interrelated principles of teaching that make up this approach.

- To teach prerequisite language and thinking skills before teaching problem-solving strategies.
- (2) To teach new concepts in the context of familiar content.
- (3) To base program content on people and interpersonal relations rather than objects and impersonal situations.
- (4) To teach generally applicable concepts rather than correct grammer.
- (5) To teach the habit of seeking solutions and evaluating them on the basis of their potential consequences rather than the absolute merits of a particular solution to a problem.
- (6) To encourage the child to think of and evaluate his own ideas and offer them in the context of the problem.

(7) To teach the problem-solving skills not as ends in themselves but in relation to the adaptiveness of overt behavioral adjustment (pp. 24-29).

The Training program and script. While participating in the training program, the trainer uses a script consisting of two sections, the first section including twenty-five games to ensure certain pre-requisite skills (such as language); and the second section which contains twelve problems related to interpersonal problem-solving skills. The total script which has evolved over three years of revision, includes forty-six, twenty minute (maximum) lessons.

According to its authors, the program is generally completed within eleven or twelve weeks.

The TAD Program

Dupont's program, Toward Affective Development, was developed for children ages eight to twelve, grades three through six. TAD was "designed to stimulate psychological and affective development" (Dupont, 1974, p.6) and can be utilized in the regular classroom. Containing five sections, the program includes a total of 191 lessons.

<u>TAD goals</u>. Deeply rooted in the child development theories of Piaget, Inhelder, Kohlberg, Loevinger, and Leeper, TAD's content focusses on the program's five major goals. According to Dupont (1974), these goals are to help students:

- extend their openness to experience and use this openness as a basis for a creative approach to living;
- (2) recognize and label feelings, to understand that feelings occur in a social context of antecedents and consequences, and to experience.

and understand how their actions influence the emotional climate of the classroom;

- (3) develop the skills of social collaboration and to become aware of the feelings and actions that weaken or strenghten social collabortion;
- (4) become more aware of their unique characteristics, aspirations, and the adult careers open to them;
- (5) develop a thought process model for conflict resolution that will help them choose behavior that is both personally satisfying and socially constructive (p. 47).

TAD's development. The program's content was continually modified during a field testing period of three years at sites in Honolulu, Hawaii; Portland, Oregon; San Francisco, California; New Brighton, Minnesota; and Chippewa Falls, Wisconsin. Blacks, Caucasians, Chicanos, Native Americans, and Orientals comprised a population of over 2,000 students from various economic levels. Over forty teachers assisted in program participation and evalution, resulting in final selection and revision of the TAD lessons. Every lesson contains a "purpose statement" which refers be outcomes observed through field testing. "Only those lessons that produced outcomes suggested in the lesson's purpose statement have been included in the final edition of the program " (Dupont, 1974, p. 15).

Section 5 of TAD. Corresponding to goal five, Section 5 of TAD includes nineteen lessons (or one unit-Unit21) under the unit title "Choosing Behavior". According to Dupont (1974) these lessons provide the students the opportunity to put "developing skills to work in resolving interpersonal conflicts and in the process to

develop a higher level of psycho-affective maturity" (p. 427).

As in the Training program of Spivack and Shure, one of the specific objectives of Section 5 is to develop in the child, an, ability to identify alternate courses of action in conflict situations. In addition to the goals and objectives of Section 5, the following purpose statements also support the contention that the TAD program will facilitate an awareness of alternatives to psycho-social situations.

- To identify alternate courses of action in a dependency conflict.
- (2) To review the possible consequences of alternate courses of action.
- (3) To choose an alternate course of action and put one's reasons for that choice into words.
- (4) To identify alternate courses of action in a moral conflict.
- (5) To identify alternate courses of action in a conflict involving aggression.
- (6) To provide the students additional apportunities to identify alternate courses of action, predict consequences, and make reasoned choices (Dupont, 1974, pp. 444-465).

Summary

The ability to generate alternatives to psycho-social situations is considered to be part of an interpersonal problem solving process. The development of such an ability appears to have significant effects on the mental health and the behavioral adjustment of the individual. The two programs that appear to be most instrumental in fostering an awareness of alternatives to psycho-social situations are Spivack and Shure's Training program,

designed for four-year olds, and Dupont's Toward Affective Development program, developed for children ages eight to twelve. Research on the former program indicates its effectiveness in fostering the ability of four-year olds to generate alternative solutions to psycho-social problems. The TAD program also appears to be an effective facilitator of the aforementioned ability in children ages eight to twelve.

METHOD

Introduction

It was the purpose of this study to determine the effectiveness of selected lessons from Dupont's Toward Affective. Development program in creating an awareness of alternatives to psycho-social situations in elementary school children.

Hypothesis

It was hypothesized that the experimental groups would manifest positive gains over the control groups at the p<.05 level of confidence.

Selection and Characteristics of Subjects

The sample utilized in this study consisted of 60 subjects randomly selected from a sixth grade population of 111 pupils at Forrest Street Elementary School in Black River Falls, Wisconsin. The school's program structure is based on a multi-unit, open classroom concept.

The 60 subjects included 29 females and 31 males.

The subjects were randomly divided into four groups (15 subjects in each), two of which were treatment groups and two of which were control groups. Descriptive data are located in Table One.

Table One - Descriptive Group Data

Group	Females	Males .	Whites	Am. Natives	IQ's ¹
One .	n = 7.	°n = -8	· n = 13	n ≅ 2	$\overline{X} = 105.36$
Two	n ≠ 8	, n 🚁 7	n = 13	n = 2	$\overline{X} = 103.61$
Three	n = 7	n = 8	n = 13	n = 2	$\overline{X} = 107.41$
Four	n = 7	n = 8	n = 13	n = 2	$\overline{X} = 108.61$

Intelligence Test, Form 1, Level C.

Research Design

The research design utilized in this study consisted of the Randomized Solomomn Four-Group Design as illustrated in Table Two.

Table Two

Randomized Solomon Four-Group Design 1

_	-		M				•		•
	Group	Pretest	Tr	eatmo	ent	Post-Test		,	
-	One	т ₁		х		т ₂			
	Two	т1			,	T ₂			
	Three	* *	,	X		T ₂			
	Four ;	•				$\sim t_2$			

1This design is cited by Issac and Michaels (1971).

The aforementioned design was used because it facilitates evaluation of the pretest factor and scores "obtained from this design can be analyzed to determine the effects of all the variables involved (program, pretesting, intervening events, etc., and their interactions)" (Anderson, Ball, and Murphy, 1975, p. 156)

Testing Procedure

The individual pretest measures were obtained in the two days prior to the onset of the treatment. Group One was pretested the first day and Group Two, the second day. The individual posttest measures were obtained in the three days immediately following the treatment. The groups were tested in the following order: Group Two, Group One, Group Three, Group Four. The order with which each individual subject within a particular group was tested was based upon teacher convenience and individual availability.

where the experimenter oriented the subject by acquainting him with the testing procedure. The experimenter then presented three pictures (TAD discussion pictures: 2, 34, 1) depicting different psycho-social situations. Accompanying each picture, the experimenter offered a description of the situation followed by a question designed to elicit a number of various alternatives to each situation (Discussion questions may be seen in Appendix A). The approach had been standardized for both

test periods. Individual responses were then recorded yielding the basic measurement data.

Individual responses were scored according to the devised manual (See Appendix B) Scoring consisted of the quantification of alternate reactions or alternate courses of action; that is, specific observable actions or reactions on behalf of the individual to given psycho-social situations.

One alternative was differentiated from another alternative in that it suggested different observable actions or reactions.

One point was given for each unique alternative. The total points (or number of different alternatives cited) for each discussion picture were recorded (See Appendix C).

Treatment Procedure

Treatment consisted of the presentation of eighteen selected lessons from Section Five of the TAD program. The lessons were thirty minutes in length and were presented over a period of seven weeks. Time slots included Tuesdays, Thursdays, and Fridays (1:25-1:55: Group One; 1:55-2:25: Group Three).

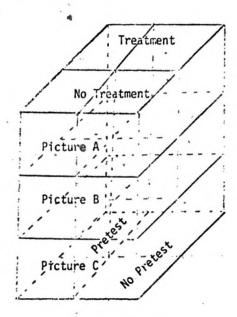
The treatment lessons focussed on psycho-social conflict situations involving dependency, aggression, and ethics (Specific lesson formats are included in Appendix D). Characteristically, students brainstormed alternate courses of action to these conflict situations, predicted consequences, and participated in role playing. The experimenter placed emphasis on the identification of alternate courses of action.

Statistical Treatment of Data

The data were subjected to a three-way analysis of variance according to the procedures outlined by Bruning and Kintz (1968).

The three dimensions of the analysis included
(1) treatment-no treatment; (2) pretest-no pretest; and (3)
pictures: A, B, and C. This procedure yielded a 2 X 2 X 3 matrix
consisting of twelve cells as depicted in Figure One.

Figure One The Three Dimensions of the Anlaysis of Variance



Also included in the statistical analysis of data was the Test for Differences Among Several Independent Variances or the F-Maximum Test for Homogeneity of Variables (Bruning and Kintz, 1963).

Program Questionnaire

On the final day of treatment, a program questionnaire (See Appendix E) was administered to each participant in each treatment group. The subjects were instructed (as a group) to anonymously respond, in writing, to each question presented.

Chapter 4

RESULTS AND DISCUSSION

In conjunction with the method described in the previous chapter, this chapter focusses on the differential results of the groups performances, the presentation of an analysis to assess the interactive effects of treatment, pretest, and pictures; an analysis of the variances among cells; and a discussion of the posttreatment questionnaire.

Group Means

An anlaysis of group scores derived from the quantification of alternate reactions or courses of action to the three descussion pictures yielded group means as depicted in Table

Three. As can be observed, the two treatment group means are markedly higher than the two nontreatment group means.

Table Three Group Means

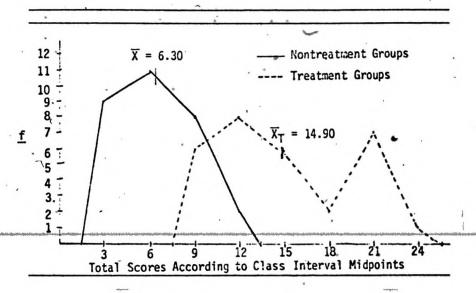
	1				•
Group	Group S	Size	Pretest	Treatment	Posttest
One.	n = 1	15	X = 6.20	×	$\overline{X} = 13.60$
Two	n = 1	15.	X = 5.73		X.= 5.73
Three	n = 1	15	. 1	X .	$\overline{X} = 16.27$
Four	n = 1	15			$\overline{X} = 6.87$

Group Distributions

Frequency distributions of the nontreatment groups and the treatment groups are located in Figure Two. The figure illustrates the effect of the treatment upon the total scores of group participants.

Figure Two

Frequency Distributions of the Nontreatment and Treatment Groups



In viewing the figure, three characteristics are readily apparent: (1) the means are clearly separated; (2) the distributions tend to overlap but not excessively; and (3) the treatment group distribution lacks symmetry but this may well be a function of the limited sample.

Three-Way Analysis of Variance

A three-way analysis of variance produced the data exhibited in Table Four.

Table Four
Three-Way Analysis of Variance

Source	SS	df	ms	F	. P
Total .	724.73	179	,		
Treatment	372.67	1	372.67	194.10	<.001
Pretest	18.05	1	18.05	9.40	<.005
Pictures	2.15	2	1.08	56	n. s.
Treatment X Pretest	2.94	1	2.94	1.53	'n. s.
Treatment X Pictures	1.81	2	91	47	n. s.
Pretest X Pictures	.30	2	.15	.08	n. s.
Treat. X Pre. X Pic.	.4.54	2	2.27	1.18	n. s.
Error -	322.27	168	1.92		

The Effect of Treatment

(

The positive effect of treatment upon posttest
performance is clearly indicated. Groups participating in the
program designed to create an awareness of alternatives to psycho-social situations demonstrated marked improvements on posttest
measures as compared to those groups which did not participate
in the program. Thus, the hypothesis that the experimental
groups would manifest positive gains over the control groups
was accepted (F=194.10, df=1/68, p<.001).

The Effect of Pretest

Having recognized the potential for the significance

of the pretest factor, the Randomized Solomon Four-Group design was utilized. This appears to have been a judicious decision for, according to the results provided by the three-way analysis of variance, the pretest factor was significant at the .005 level of confidence (F=9.40, df=1/63, p<.005). The pretest had a negative effect on posttest measures. This was somewhat of an unexpected finding. A further review of the subjects performances revealed that some of the participants in the pretest groups tended to minimize the utilization of responses already given in the pretest situation. The two groups that did not experience a pretest yielded higher means in comparison to the other nontreatment and treatment groups, respectively, as indicated in Table Three.

This finding may raise questions regarding the efficacy of set expectation, set orientation, and advanced organization, with creative tasks or tasks designed for divergent thinking in stimulus materials that are more socially oriented than traditional learning task materials.

The Effect of the Pictures

The differences among the three discussion pictures appear to be non-significant (F=.56, df=2/168, n.s.). It appears that the pictures are equivalent in eliciting responses to the depicted psycho-social situations.

The Interactions Among the Three Dimensions of the Analysis of Variance

As can be observed in Table Four, the interactions

between treatment and pretest, treatment and pictures, pretest and pictures; and among treatment, pretest and pictures, are not significant. It seems to make little difference if the pictures, pretest, and treatment dimensions are placed in various combinations.

The F-Maximum Test for Homogeneity - of Variances

The results of F- Maximum Test for Homogeneity of Variances (Bruning and Kintz, 1968) indicate that the variances among the twelve cells were heterogeneous (F_{max}=8.95, k/df=12/14, p<.01). However, Lindquist (1953) firmly asserts that the effect of heterogeneity of variances on the F-distribution will most likely be negligible. In fact, when a marked heterogeneity of variances is witnessed, "allowance may be made for this fact by setting a higher 'apparent' level of significance for the tests of treatment effects than would otherwise be employed" (Lindquist, 1953, p.86). Consequently, in light of the pronounced positive treatment effect demonstrated in this study (F=194.10, df=1/168, p<.001), one may be reassured of the negligible effects of heterogeneity of variances by reducing the .001 level of significance to a level of .01.

The Posttreatment Questionnaire

The results of the "Yes/No" questions of the posttreatment questionnaire are included in Table Five. The vast majority of the program participants indicated that the program was worthwhile and that they wished to participate in a similar program again. Moreover, when asked what they liked

"best" about the program, the prevalent responses reflected a freedom to communicate ideas aloud and amongst peers. When asked what they liked "least" about the treatment program, the majority of responses included conflicting time slots and instances when many participants were speaking concurrently. Thus, in the view of the children, the treatment facilitated a desired environment amenable to open communication and exchange of ideas.

Table Five
Posttreatment Questionnaire

		ŧ	
Question	No. of Responses	No. of YES Responses	No. of NO Responses
Overall, do you think our program was worthwhile?	30	28	2
2. Were the picture sequences interesting?	. 30	26	4
3. Did you like sitting in a semi-circle?	30	26	oprofilitation (file) on a grant consistent state (Anti-Anti-Anti-Anti-Anti-Anti-Anti-Anti-
4. Was it easy for you to communicate your ideas to others?	30	29	1 marke-remains
Would you participate in a pro- gram of this kind again?	30	30	0

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

Summary

This study was designed to determine the effectiveness of selected lessons from Dupont's Toward Affective Development program in creating an awareness of alternatives to psychosocial situations. Utilizing a sample consisting of 60 subjects
randomly selected from a sixth grade population of 111 pupils
at Forrest Street Elementary School in Black River Falls, Wisconsin; the experimenter randomly formed four groups (15 subjects
in each group) including two treatment groups and two nontreatment
groups. Treatment consisted of the presentation of eighteen selected lessons from the TAD program. The lessons emphasized the
identification of alternate courses of action in psycho-stial
situations involving dependency, aggression, and ethics.

Individual pretest and posttest measures were conducted in consonance with the Solomon Four-Group design. These measures consisted of the presentation of three discussion pictures depicting different psycho-social situations. Individual responses to these pictures were scored according to the devised manual.

Posttest data subjected to a three-way analysis of variance clearly indicated the positive effect of treatment upon the ability to generate alternatives to psycho-social situations

as depicted in the posttest measures (F= 194.1%, df=1/168, p<.001). The hypothesis that the experimental groups would manifest positive gains over the control groups was accepted.

The three-way analysis of variance also indicated that the pretest had a negative effect on posttest measures. This was an unexpected finding. Apparently, some of the participants in the pretest groups tended to minimize the utilization of responses already given in the pretest situation.

The results of the F-Maximum Test for Homogeneity of Variances reflected heterogeneous variances among the twelve cells of the analysis of variance design. However, previous studies indicate that the effect of heterogeneity of variances is probably negligible (Lindquist, 1953).

The treatment participants expressed marked, favorable attitudes toward the program, disclosing their desire to participate in a similar program again. An environment conducive to open communication appeared to be highly valued by the children in the treatment groups.

Conclusions

- 1. It can be concluded that the experimental groups did, in fact, manifest significant, positive gains over the control groups. It, therefore, has been demonstrated that the selected TAD lessons were effective in creating an awareness of alternatives to psychosocial situations in a sample of sixth grade children.
- It has also been shown that the participants reported overwhelming, positive views about the program.

Implications

The results of this study appear to have interesting implications in regard to the unexpected finding of the negative effect of the pretest factor. The full understanding of what this might imply is not readily apparent. The nature of the negative effect of the pretest factor would certainly warrant further investigation.

The development of the ability to generate alternatives to psycho-social situations may have, as Spivack and Shure (1974) déclare, significant effects on the mental health and the overall behavioral adjustment of the child. It would, therefore, seem reasonable to incorporate into elementary school curricula, experiences which may foster the child's ability to generate alternatives to psycho-social situations.

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