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ABSTRACT

Two studies were conducted to assess the effectiveness of the Marvelous Me--Preschool Edition (MM-PE) Curriculum Guide, a 12-Session program designed to enhance the self-concepts of preschool children. Study 1 involved 127 middle and upper-middle class midwestern white students, mostly Jewish, from 10 classrooms in 1 nursery school and 1 day-care center. Study 2 involved 58 inner-city black preschool children in Chicago defined as academic at-risk. In both studies, the Purdue Self-Concept Scale for Preschool Children was used as pre- and as post-test. Parents and teachers completed the All About Me Evaluation Checklist after program implementation in both studies, and teachers of the experimental groups in study 1 completed a teacher questionnaire. In study 1, a comparison of experimental (N=72) and control (N=55) students on the pre- and post-test, and the gain from pre- to post-test scores, indicated no significant difference between the two groups. In Study 2, experimental students (N=30) had a significantly higher gain in MM-PE scores than did control students (N=28), although control students also gained from pre- to post-test, probably due to familiarity with the test and maturity. The main conclusion drawn was that at-risk preschool children possibly could benefit the most from a systematic intervention designed to enhance their self-concept. (Thirty-five references and six data tables are included.) (NB)

Marvelous Me - Preschool Edition: Enhancing Self-Concept Development in Preschool Children

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Abstract

The paper describes two studies using Marvelous Me-Preschool Edition (MM-PE) curriculum, a program designed to enhance self-concept in preschool children. Study 1 was conducted with 158 middle and upper-middle class white students; and Study 2 included 58 at-risk, black, inner-city students. In both studies, the Purdue Self-Concept Scale for Preschool Children (PSCS) (Cicirelli, 1974) was used as pretest and as posttest. In Study 1, a comparison of experimental and control students on the pretest and the posttest, and the gain from pretest to posttest scores, indicated no significant difference between the two groups. In Study 2, experimental students had a significantly higher gain than control students, although control students also gained from pretest to posttest, probably due to familiarity with the test and maturity. The main conclusion is that at-risk preschool children possibly benefit the most from a systematic intervention designed to enhance their self-concept. In addition to describing the two studies, the paper also discusses self-concept development in early childhood and the difficulties associated with measuring it.

MARVELOUS ME - PRESCHOOL EDITION: ENHANCING SELF-CONCEPT DEVELOPMENT IN PRESCHOOL CHILDREN

Introduction

Theorists and researchers intrigued with the idea of a self-concept have reflected on its meaning for many years (Adler, 1927; Bloom, 1964; Coopersmith, 1967; Erikson, 1950). Many definitions of the term can be cited, each different, depending on the theorist's orientation. Most theorists, however, define the term self-concept as the perceptions and feelings one holds regarding one's attributes and abilities (Coopersmith, 1967; Felker, 1974; Silvernail, 1981; Yamamoto, 1972). In addition, the self-concept is described as multi-dimensional, consisting of (a) body self, (b) social self, (c) cognitive self, and (d) self-esteem. When combined, these key dimensions comprise what is referred to as the general self-concept.

It is generally believed that one is not born with a positive or negative self-concept. Rather, research suggests that the self-concept begins to form at birth, and is essentially complete before middle childhood (Coopersmith, 1967; Samuels, 1977; Wylie, 1961). Due to the early development and stability of the self-concept, early childhood has been identified as the crucial period for the development of the self-concept (Erikson, 1950; Freud, 1962; Kagan, 1981; Piaget & Inhelder, 1969; Samuels, 1977; White, 1975).

Initially, the development of the self-concept stems from interactions between child and parent. Later, the experiences and interactions between children and teachers will play a pivotal role in the overall formation of the self-concept (Dreyer & Haupt, 1966; Erikson, 1950; Sears, 1970). With the increasing enrollment of young children in preschool and day-care programs, the experiences in early childhood education are playing a key role in the development of self-concepts in young children.

The rationale for the present studies stems from the need for information regarding programs which can be used by early childhood educators for the purpose of enhancing positive self-concepts in their young students. To date, very few programs have been developed and tested for effectiveness with preschool children. The self-concept enhancement programs which have been studied have involved school-age children and have produced mixed results (Medway & Smith, 1978; Silvernail, 1981). It was the goal of these two studies to systematically determine if the Marvelous Me-Preschool Edition (MM-PE) curriculum is an effective and useful program for early childhood educators who wish to enhance the self-concepts of children in their classrooms.

Research on several commercially packaged programs which stress the enhancement of self-concepts in children has appeared in the literature. Each of these programs has received a considerable amount of use in classrooms and a fair amount of empirical evaluation. While none of these

studies have involved preschool children as subjects, they are comparable to the present studies with regards to their design, program characteristics and methods of measuring results. A brief review of these programs and research studies follows.

The Human Development Program (HDP), also known as "Magic Circle", was developed by Bessell and Palomares (1970) primarily to improve student interpersonal communication. In addition, HDP was designed to promote healthy emotional growth and improve children's self-concepts. Five studies have been conducted to examine the effectiveness of HDP with first through sixth grade students as subjects (Darrigrand & Gum, 1973; Day, 1978; Edmundson, 1976; Hawkinson, 1970; Mosser & Evans, 1973; Strickler, 1973). In sum, there is little evidence that HDP, per se, enhances the self-concept of school-age children. The only generalization which can be drawn from this research is that consistent and relatively long-term use (i. e.,25 weeks) of self-concept enhancement materials can improve students' self-concepts.

Another program, Dinkmeyer's Developing Understanding of Self and Others (DUSO) (Dinkmeyer, 1970) was developed to help children ages 5 to 8 (DUSO-1) and ages 7 to 10 (DUSO-2) to better understand the consequences of their behavior and to teach self-acceptance, decision making and social responsibility. In terms of empirical evidence, for every study demonstrating the effectiveness of DUSO in producing

gains in self-concept (Cleminshaw, 1972; Finely, 1972; Young, 1973), there is a study showing little effect due to DUSO (Allen, 1975; Eldridge, Barcikowski, & Witner, 1973; Marshall, 1973; Poudrier, 1976; Rusch & Dinkmeyer, 1973).

A third program, Dimensions of Personality (DOP) (Limbacher, 1973) is a K-6 curriculum which includes tasks designed to promote self-confidence, cooperation, competence, self-awareness, self-understanding and self-acceptance. The four studies which have attempted to evaluate the effectiveness of DOP have also reported mixed results.

In sum, research conducted with self-concept enhancement programs is not overly encouraging. First, these programs have shown inconsistent results. The studies which have found significant gains in self-concept scores as a result of the intervention were those in which a program was implemented for relatively long periods of time (i.e. at least 25 weeks). Second, this review of the literature produced primarily studies and programs designed for school-age children and their generalization to the preschool population is limited. Although a few self-concept enhancement programs and activities for the preschool children have been developed, no empirical evidence of program effectiveness is available. A review of the literature clearly presents a need for further research into self-concept enhancement programs designed specifically for the preschool-age population.

Intervention

Both of the studies to be reviewed used the Marvelous Me-Preschool Edition (MM-PE) Curriculum Guide. MM-PE is a 12-session program designed to enhance the self-concepts of preschool children. It was developed by one of the researchers, Kara Sullivan-Temple, at Iowa State University in 1987, and was revised in 1989 from its original 6-session design. It is an adaptation of a similar program which was appropriate for use with school age children. To date, the MM-PE program has been used with children in a laboratory preschool at Iowa State University and with children in day-care settings.

The MM-PE programs consists of 12-sessions, organized around six central themes: feelings, self-image. getting to know myself, family, friends and community. Each session follows a similar format, with activities varying from session to session. Children participate in a variety of activities, such as art projects, songs, dances, large group activities, books, finger plays and puppetry.

The MM-PE also includes six handouts which encourage parental involvement. Each handout briefly describes the content of each session and lists additional activities which foster positive self-concept development. Parents are encouraged to complete these activities with their children at home.

Instruments

The Purdue Self-Concept Scale for Preschool Children (PSCS) (Cicirelli, 1974) was selected as the instrument to measure the self-concepts of the subjects in both studies. The PSCS is a 40-item test in which children are asked to point to one of two pictures which is most like them. Cicirelli reports internal consistency reliability (KR-20) for a group of 312 preschoolers to be .86, and test-retest reliability for a 2 week period to be .70. In order to confirm this high reliability, pretest data for the 158 children in Study 1 were. The analysis revealed internal consistency reliability (Cronbach's alpha) to be .88. Cicirelli suggests that the reliability and validity of the PSCS is acceptable when the instrument is used in research to determine the effectiveness of self-concept enhancement programs.

All About Me Evaluation Checklist was completed by parents and teachers after program implementation for Study 1 and Study 2. This 13-item checklist was developed by Lang and Stinson (1986) and no reliability or validity data are available for the instrument. The items consist of characteristics which children with positive self-concepts have been found to possess. Parents and teachers used the checklist to indicate if they had observed these characteristics more often or to the same degree after their child had participated in MM-PE.

A Teacher Questionnaire was also developed for purposes of gathering feedback data regarding the effectiveness of the MM-PE program. Only the teachers of the experimental groups in Study 1 completed this questionnaire.

Study 1

Participants

The sample for this study consisted of 158 preschool children from 10 classrooms in one nursery school and one day-care center near a large Midwestern metropolitan area. For final data analysis, both pretest and posttest scores were available for 127 of the original 158 children included in this study. The schools served primarily middle-class to upper-middle class Jewish families. Each of the 10 classrooms of children were randomly assigned to either a control or experimental group, resulting in five control groups (N=55) and five experimental groups (N=72). Children's ages ranged from 36 months to 72 months old. Nine classrooms were staffed with one head teacher and at least one teacher's assistant and one classroom had one head teacher and no assistant.

Procedure

In the winter of 1989, all experimental and control group students were pretested using the PSCS. For the next 4 weeks, each experimental classroom of children participated in a 45-minute session of MM-PE, three times a week. After the 4-week period, the PSCS was administered

again to all children in the experimental and control groups. Teachers and parents of the children in the experimental groups completed the All About Me Checklist. In addition, teachers of the experimental groups completed the program evaluation.

Results

The pretest means of the experimental and control groups were almost identical (33.24 and 33.40, respectively). Results from an independent t-test revealed that both groups showed a similar gain in mean scores from pretest to posttest, with the experimental group gaining 2.26 points and the control group gaining 2.93 points (Table 1). The difference in gain was not statistically significant. In other words, experimental group students did exhibit a higher gain in self-concept scores as a result of the MM-PE intervention.

Insert Table 1 about here

A one-way ANOVA was conducted to test the hypothesis that the 5-year-old children will gain more in PSCS than will the 3- and 4-year old children. This analysis of variance revealed no significant differences between the mean gains of the three age groups: the 3-year olds had a mean gain of 2.70, the 4-year olds had a mean gain of 1.90, and the 5-year old mean gain of 2.90 (Table 2). Although not statistically significant , the 5-year-old group did

have the greatest mean gain. In addition, there was an unexplained break in the predicted trend of mean gain as it was the 4-year-old group, and not the 3-year-old group, who showed the least gain in mean score.

Insert Table 2 about here

Parents and teachers of the experimental group children were asked to complete the All About Me Checklist. The checklist consists of 13 behavior statements regarding their children. Parents and teachers were asked to indicate whether the behavior listed had occurred more often or the same since the start of the MM-PE program. Chi square was used to compare the responses of the teachers to the responses of the parents. Results revealed that parents reported observing increases in 5 of the 13 behaviors listed on the checklist, while teachers did not report any significant increases in behaviors. (See Table 3.)

Insert Table 3 about here

Teachers of the experimental groups completed the Teacher Questionnaire in order to provide feedback regarding the usefulness and appropriateness of the MM-PE program. All of the teachers agreed that the MM-PE curriculum guide provided them with a structured format, easy to follow instructions and clearly-outlined activities. All teachers

agreed that the activities were familiar and found them to be appropriate for use with their preschool populations. Additional comments revealed that the MM-PE program was well received by the children and their parents.

Discussion

Results of this study did not show the MM-PE program to be effective in enhancing the self-concepts of preschool children in early childhood settings. The mean gain of experimental group children was not higher than the mean gain of control group children. The mean gain of nearly 3 points obtained by both experimental and control groups is thought to be attributed to familiarity with the testing instrument and maturation. Several plausible explanations for the lack of significantly higher gain in self-concept scores for the experimental group children are as follows: (a) the high pretest mean obtained by the experimental group suggests that there was little room for gain as a result of a 4-week intervention such as the MM-PE program; (b) group means, as opposed to individual means, were used in the analysis of data, and while some of the children did gain is their self-concept scores, this gain was not reflected in the overall analysis used for this study; (c) the 4-week time line for the study may not have been an adequate period of time in which to produce changes in children's self-concept scores; and (4) the match between the PSCS and the MM-PE was not ideal. The comparisons between parents' and teachers' perceived changes in children's self-concepts

after participation in the MM-PE program revealed that only the parents observed changes in self-concept behaviors. The reliability of parents as objective reporters and observers of their children's behaviors is questionable.

Comparisons between the mean gain scores for the 3-, 4- and 5-year olds did support the prediction that MM-PE would increase the self-concept of the 5-year olds to a greater degree than the younger children. While these results are preliminary, they do provide support for the notion that MM-PE may be most effective when used with 5-year-olds.

Finally, qualitative data obtained from teachers' responses to the Teacher Questionnaire revealed that MM-PE is perceived as a useful and appropriate program for self-concept enhancement in preschool children. In addition, teachers reported gaining valuable information regarding self-concept enhancement as a result of their participation in this study. Teacher responses also revealed that the program was well-received by children and parents.

Study 2

Participants

The sample for this study consisted of 58 Chicago inner-city black preschool children, defined as academic at-risk according to the State of Illinois criteria. There were 30 experimental and 28 control students, ages 3 and 4. Both groups were taught by experienced preschool teachers

and were similar in demographic characteristics. Most children came from homes where the mother was a single parent, and the household income was low. The children attended preschool for 2½ hours daily, either in the morning or in the afternoon. All children in both experimental and control groups had parental permission to participate in the study.

Procedure

In the Fall of 1990, all experimental and control students were pretested by their teachers, using the PSCS. For the next 6 weeks, experimental group teacher used the MM-PE curriculum, as described in the teacher guide. At the end of this period, both teachers again tested their students, using the PSCS. In addition, the teachers and parents of both groups completed the student evaluation form.

Results

The pretest means of experimental and control group students were similar (30.43 and 31.61, respectively). An independent *t*-test showed that the difference between the two means was not statistically significant. Both groups scored significantly higher on the posttest than on the pretest, but the gain was much greater for experimental group (Table 4).

Insert Table 4 about here

An analysis of covariance was used to compare the gains made by experimental and control group children. On the average, experimental group children gained 8.67 points, and control students gained 2.14 points (Table 5). The F ratio of 35.98 was highly significant ($p=.0001$), indicating that while both groups gained from pretest to posttest, the gain made by experimental group was much higher.

Insert Table 5 about here

The parents of both groups of students were asked to complete an evaluation form. The form consisted of 13 behavior statements regarding their child. Each parent was asked to indicate whether the behavior listed had occurred more often or the same since the start of the MM-PE program. Chi square was used to compare the responses of the two groups of parents. Results showed no difference in the responses of the experimental and control group parents. For all items, the majority of parents in both groups checked off more often.

The responses of the two teachers to the students evaluation forms indicate a different pattern. For all 13 items, the experimental group teacher checked off more often for more kids than did the control group teacher (Table 6). The difference between the two teachers was statistically significant for 7 out of 13 items ($p<.05$).

Insert Table 6 about here

Discussion

The results of this study demonstrate that the MM-PE curriculum is effective in enhancing the self-concept of at-risk preschool children, as measured by the PSCS. The mean gain of experimental group children was significantly higher than the mean gain of control group children. The gain of over 2 points obtained by control students can be attributed to an increased familiarity with the test as a result of repeated testing; and to maturation. The increase of nearly 9 points obtained by the experimental group students is too great to be attributed simply to familiarity with the test and maturation. Rather, it suggests that a systematic curriculum, such as MM-PE, designed to enhance preschoolers self-concept, is indeed effective.

The parents of both experimental and control group children responded that they observed more often various positive behaviors exhibited by their children. It is difficult to interpret these findings. The reliability of the parents as objective observers of their children's behavior is questionable. When asked to assess their children's behavior, the majority of parents of both experimental and control group children tended to respond that they saw more positive behavior since the start of the

MM-PE program (6 weeks prior to completing the evaluation form).

The responses of the two teachers should also be interpreted cautiously. The experimental group teacher indicated she observed more positive behavior of her students than did the control group teacher. However, the halo effect may have been a factor. That is, the experimental group teacher, who was also the researcher in that study, may have not been completely objective. Future studies should explore other ways to elicit teacher's assessment of the possible changes in their students' behaviors as a result of the curriculum intervention.

Conclusions

The two studies reported yielded conflicting results. Study 1 in which the MM-PE program was implemented with middle-class to upper-middle class preschoolers showed no difference in gain in self-concept between experimental and control students. Study 2, conducted with inner-city, at-risk minority preschoolers, documented a significant gain for experimental students in comparison to control students. One conclusion, then, is that the MM-PE curriculum is more effective with at-risk children than with children from higher socioeconomic groups. The pretest scores of the at-risk children were lower than those of the children in the first study, pointing to a greater need for self-concept enhancement, which is the goal of the MM-PE curriculum.

The length of the curriculum implementation may also be a factor in its success. In the first study, the program lasted 4 weeks, and in the second study it lasted 6 weeks. A second conclusion calls for implementing the MM-PE program for at least 6 weeks.

The pretest scores of the preschoolers in the first study were quite high, revealing that there might be a ceiling effect with the instrument used, the PSCS, especially with some populations. A second conclusion suggests exploring the use of another instrument designed to measure self-concept of preschool children.

The fourth conclusion concerns the teachers feedback. All teachers reported that their students liked the program and enjoyed the various activities. Although the teachers in Study 1 said they were already doing many of the activities with their students, they liked having a structured, well-planned, systematic curriculum.

The two coauthors of this research report are currently conducting a third study in a middle-class to upper-middle class preschool. The program will last 6 weeks and in addition to the PSCS, a second instrument will be used to measure self-concept. The instrument selected is the Joseph's Preschool Self-Concept Scale (JPSCS). The efficacy of the two instruments and their appropriateness will be assessed, as well as their correlation with each other.

References

Adler, A. (1972). The practice and theory of individual psychiatry. New York: Harcourt Brace.

Allen, P. (1975). The effects of DUSO upon the reported self-esteem of fifth grade subjects. Unpublished doctoral dissertation, University of South Carolina.

Bessell, H., & Palomares, U.(1970). Methods in human development: Theory manual and curriculum activity guide. San Diego: Human Development Training Institute.

Bloom, B. (1964). Stability and change in human characteristics. New York: John Wiley and Sons.

Cleminshaw, H. (1972). The influence of the DUSO group guidance program on the first-grade child's understanding and acceptance of self. Unpublished manuscript, Maple Heights City Schools, Maple Heights, OH.

Cicirelli, V. (1974). The Purdue self-concept scale for preschool children: Norms - technical manual. (Contract No. 50037). West LaFayette, IN: Purdue University Office of Child Development. (ERIC Document Reproduction Service No. ED 057 910)

Coopersmith, S. (1967). The antecedents of self-esteem. San Francisco: W. H. Freeman.

Darrigrand, G., & Gum, M. (1973). A comparison of the effects of two methods of development guidance on self-concept, peer relationships and school attitudes of second-grade children. In G. Miller (Ed.), Additional studies in elementary school guidance: Psychological

education activities evaluated (pp. 240-271). St. Paul, MN: Minnesota Department of Education.

Day, R. (1978). An investigation of the effects of the Human Development Program "Magic Circle" on selected affective, cognitive , and confluent variables of second, fourth, and sixth graders. Dissertation Abstracts International, 39, 125-126A.

Dinkmeyer, D. (1970). Developing understanding of self and others. Circle Pines, MN: American Guidance Service.

Dreyer, A., & Haupt, D. (1966). Self-evaluation in young children. Journal of Genetic Counseling, 108, 185-197.

Edmundson, R. (1978). A comparison of two different instructional approaches in achieving self-concepts of fourth grade students in a public school. Dissertation Abstracts International, 38, 4580A.

Eldridge, M., Barcikowski, P., & Witner, J. (1973). Effects of DUSO on the self-concepts of second grade students. Elementary School Guidance and Counseling, 7, 256-260.

Erikson, E. (1950). Childhood and society. New York: Norton.

Felker, D. (1974). Building positive self-concepts. MN: Burgess.

Finley, M. (1972). Development of social awareness in first grade children. Unpublished manuscript, Middle Tennessee State University .

Freud, S. (1962). The ego and the Id. London: Hograth Press.

Hawkinson, A. (1970). The effect of the HDP on the self-concept of some elementary school children. Unpublished master's thesis, California State University.

Kagan, J. (1981). The second year: The emergence of self-awareness. MA: Harvard University Press.

Lang, D., & Stinson, B. (1986). I'm somebody and so are you: Self-concept activities for children. Emporia, KS: Emporia State University.

Limbacher, W. (1973). Dimensions of Personality. Dayton, OH: Pflaum.

Marshall, P. (1973). Effective counselor uses of DUSO guidance materials. Guidance for Pupil Services, 12, 20-23.

Medway, F., & Smith, R. (1978). An examination of contemporary elementary school affective programs. Psychology in the Schools, 15, 260-269.

Mosser, M., & Evans, R. (1973). The effects of small group interaction on self-esteem and interpersonal relations. Unpublished manuscript, Palm Beach County Public Schools, FL.

Piaget, J., & Inhelder, B. (1969). The psychology of the children. New York: Basic Books.

Poudrier, B. (1976). The effects of a self concept intervention program on the self-esteem and achievement

of fourth graders. Dissertation Abstracts International, 36, 4405A.

Rusch, R., & Dinkmeyer, D. (1973). Developing understanding of self and others and the appropriate experimental guidance model. Unpublished manuscript, State University of New York, Albany.

Samuels, S. (1977). Enhancing self-concept in early childhood. New York: Human Services Press.

Sears, P. (1970). Relation of early socialization experiences to self-concepts and gender role in middle childhood. Childhood Development, 41, 267-289.

Silvernail, D. (1981). Developing positive students self-concept. Washington, DC: National Education Association.

Strickler, R. (1973). Evaluation of HDP and other guidance materials. Unpublished manuscript, Penn-Delco School Distict, Aston, PA.

White, B. (1975). The first three years of life. Englewood Cliffs, NJ: Prentice-Hall.

Wylie, R. (1961). The self-concept: A critical survey of pertinent research literature. Lincoln, NE: University of Nebraska Press.

Yamamoto, K. (1972). The child and his image: Self-concept in the early years. Boston, MA: Houghton Mifflin.

Young, R. (1973). The study of effectiveness of DUSO kit experiences on some primary children. Unpublished manuscript. Mental Health British Columbia, Vancouver, Canada.

Table 1

Gains in Pretest and Posttest Means on PSCS for Experimental and Control Groups: Independent T-Test

	N	Mean	SD	T-Value
Experimental	72	2.26	4.61	0.72^{ns}
Control	55	2.93	5.73	

NS = not significant

Table 2

Comparison of Gain Scores on PSCS Between Age Groups: One-Way ANOVA

Group	N	Mean	SD	F
3-year-olds	21	2.70	3.54	0.33[ns]
4-year-olds	40	1.90	5.50	
5-year-olds	11	2.90	2.80	

NS = not significant

Table 3

Differences Between Parent and Teacher Responses to Items on the All About Me Checklist: Chi-Square Analysis

Item	Chi Square
1. Says "I can do that"	4.00*
2. Volunteers to help friends & teacher	3.30
3. Makes eye contact with others	0.00
4. Takes good care of school property	2.30
5. Has good posture	0.34
6. Can clearly express feelings and thoughts	1.00
7. Shares	4.56*
8. Shows leadership qualities	9.52**
9. Speaks in large groups	5.60*
10. Plays with group	5.90*
11. Shows emotional maturity	0.00
12. Smiles a lot	2.03
13. Tries new activities	1.44

* $p < .05$

** $p < .01$

Table 4

Pretest and Posttest Scores for Experimental (N=30) and Control (N=28) Groups on the PSCS: T-Test for Dependent Samples

	Mean		SD		
Group	Pretest	Posttest	Pretest	Posttest	T
Experimental	30.43	39.10	6.17	1.16	7.91**
Control	31.61	33.75	5.60	5.85	2.61*

* p< .005

** p< .001

Table 5

Comparison of Mean Gains for Experimental and Control Groups: Covariance Analysis

		Pretest		Posttest		Adjusted	
Group	N	Mean	SD	Mean	SD	Mean	F
Experimental	30	30.43	6.17	39.10	1.16	39.30	35.98*
Control	28	31.61	6.60	33.75	5.85	33.54	

* $p < .0001$

Table 6

Comparison of Teacher Responses on the Checklist for Experimental (E) and Control (C) Groups: Chi Square Analysis

Item No.	Group	More Often	The Same	Chi Square
1	E	29	1	2.21
	C	24	4	
2	E	30	0	5.86*
	C	23	5	
3	E	29	1	0.00
	C	27	1	
4	E	29	1	8.42**
	C	19	9	
5	E	30	0	4.60*
	C	24	4	
6	E	25	5	3.71
	C	17	11	
7	E	26	4	0.60
	C	26	2	
8	E	28	2	10.36**
	C	16	12	
9	E	28	2	3.71
	C	21	7	
10	E	28	2	1.93
	C	28	0	
11	E	28	2	0.01
	C	26	2	
12	E	30	0	5.86*
	C	23	5	
13	E	30	0	1.09
	C	27	1	

* $p<.05$
** $p<.005$