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An Evaluation of a Program to Aid Generalization of Social Skills Training with Grade 3 and 4 Children

by

Patricia M. Carson B.A., Wilfrid Laurier University, 1982

THESIS

Submitted to the Department of Psychology in partial fulfilment of the requirements for the Master of Arts degree
Wilfrid Laurier University
1986

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Abstract

This research evaluated two interventions for aiding children in the generalization of social problemsolving skills training: (1) social problem-solving training with teacher-student "dialoguing", peer pairing, and self-monitoring, and (2) social problem-solving training with teacher-student "dialoguing" only. These two experimental interventions were compared with a non-equivalent control group. It was found that both experimental and control groups improved in the performance of social skills. However, there were no significant differences between the two experimental groups and the control group on measures of social skills performance, behavioral adjustment, self-efficacy and peer acceptance. These results were consistent with previous research in the area of social skills training, indicating that there is some doubt as to the value of cognitive intervention programs with young children.

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Review of the Literature

Since the early 1970's, it has been recognized that academic training alone is inadequate for successful functioning in society. There is a growing body of literature indicating that socially unskilled children tend to have school maladjustment problems (Gronlund & Anderson, 1963; Ullman, 1957; Roff, Sells & Golden, 1972) and mental health difficulties as adults (Cowen, Pederson, Babigan, Izzo & Trost, 1973; Kohn & Clausen, 1975; Roff, 1970). It is understandable, then, that the field of social skills training has become a rapidly growing area of research for both psychologists and educators.

Social skills can be conceptualized as part of a broader construct known as "social competence" (Foster & Ritchey, 1979). Social competence refers to "those responses which, within a given situation, prove effective, or in other words, maximize the probability of producing, maintaining, or enhancing positive effects for the interactor" (Foster & Ritchey, 1979). The implication from this statement is that the skilled child's behavior results in positive consequences and the unskilled child's results in punishing or negative consequences.

In an effort to increase social competence and lessen the risk of later maladjustment, researchers have developed methods of social skills training and assessment. Intervention studies have typically focused on one or more of the following aspects of an individual child's social skill: affect (e.g., recognizing and understanding feelings in self and others and expressing feelings appropriately) (Thomson-Rountree & Woodruff, 1982), social living behaviors (e.g., co-operation, participation, complimenting, and sharing) LaGreca & Santogrossi, 1980), and cognitive problem-solving strategies (e.g., identifying the problems, stating the goal, generating solutions, anticipating consequences and choosing the best solution) (Spivack & Shure, 1974; Gesten et al., 1982; Weissberg et al., 1981 a & b). Intervention programs have differed in terms of the clientele served. Some programs are offered on an individual or small group basis to children identified in some way as 'deviant", while other programs, with a mental health promotion orientation, are offered to entire classrooms of "normal children".

In order to effectively evaluate the benefits of social skills training programs, a multi-method assessment approach is needed. Ladd and Mize (1983) identified

three facets of social skill: knowledge, performance, and generalization. Each of these areas must be assessed in order to: ascertain areas of deficit, design appropriate programs, and determine program effectiveness. Krasnor and Rubin (1981) outline strategies to assess each of these three facets of social skill: the hyothetical-reflective method where a hypothetical problem is presented for solution to assess skill knowledge, the simulated situation or role play test to assess skill performance, and behavioral observation by teachers or trained observers to assess skill generalization.

There is also a need to determine program effects on children's psychological well-being (i.e., confidence in interpersonal situations) assessed by children's self-reported self-efficacy for peer interaction tests, and peer acceptance as assessed by sociometric measures (Nelson & Carson, 1984).

Studies emphasizing the affective components of social skill, such as Project Aware (Elardo & Cooper, 1977), have shown positive changes in affective skills as assessed by children's self-report (Elardo & Caldwell, 1979; Thomson-Rountree & Woodruff, 1982). Findings indicate that the program helped children achieve greater personal adjustment and acceptance of responsibility for

negative outcomes in social interactions.

Other researchers have emphasized the teaching of specific social living behaviors. Oden and Asher (1977) found that behavior changes following social skills training led to increased popularity and peer acceptance. Studies conducted by Ladd (1981) and LaGreca and Santogrossi (1980) found that children can learn social behaviors (i.e., cooperation, participation, complimenting and sharing) and can generalize these behaviors to natural settings. However, the population used in their studies consisted of children identified as deviant rather than total classrooms of children.

Spivack and Shure (1974) and Weissberg and Gesten (1982) have developed a cognitive problem-solving approach to the learning of social skills. The sequence of skills taught is usually a variant of the following: (1) problem definition, (2) brain-storming alternative solutions, (3) looking at the consequences of one's actions, (4) implementing a solution, (5) evaluating the results of the solution chosen. Research has shown that children trained in this approach have shown an increase in knowledge of skills for problem-solving, but findings regarding changes in actual classroom behavior as reported by teacher ratings have been equivocal (Gesten

et al., 1982; Weissberg et al., 1981 a & b).

Nelson and Carson (1984), in a study devoting equal attention to the affective, behavioral, and cognitive components of social skill and using a multi-method assessment approach, found that, like previous studies, the approach met with mixed success. The children acquired the knowledge and ability to perform social skills, but there were mixed results with regard to actual changes in classroom behavior and psychological well-being. In fact, children who gained in skill-knowledge actually showed lower feelings of self-efficacy and more teacher rated problems.

Gesten et al. (1982) suggest that children may temporarily show an increase in social relationship problems during or following social skills training. This is consistent with the initial findings of the Rochester group (Weissberg et al., 1981 b). It was felt that more time may be needed for children to consolidate learning and integrate this knowledge into daily living (Nelson & Carson, 1984). This difficulty in achieving generalization across settings and over time has become a major concern in social skills research. According to Reese and Filipczak (1980), documented evidence of skill generalization is limited.

Scott et al. (1983) have attempted to resolve the issue of terminology in regard to generalization. They suggest the term "transfer of training" best describes the meaning most consistent with social skills training.

Transfer of training is defined as the extent to which behaviors altered in one situation or setting transfer to other situations or settings in which the program has never been in effect (Kazdin, 1975).

"Traditionally, many theorists have considered generalization to be a passive phenomenon" (Stokes & Baer, 1977). However, it is apparent from the above studies that a combination of methods needs to be developed in order to provide a program of social skills training which will be effective in developing not only increased knowledge of socially appropriate behavior but an actual transfer of training across settings and time. If generalization is to take place then the researcher must "train to generalize" (Stokes & Baer, 1977). Stokes and Baer (1977) believe it is only practical to assume that unplanned generalization does not take place. Thus, it, is fundamental to any program expecting generalization and durability of behavior to program in such a way that it will take place.

While numerous social skills training programs

have been developed, the emphasis has been on changing individual behavior. Arguing from the perspective of community psychology, Trickett (1984) stresses the importance of "taking the environment into account when conducting research, designing interventions, and developing training programs." Recently, researchers have focused on different strategies attempting to strengthen generalization by promoting environmental change: 1) teacherstudent "dialoguing", 2) cooperative activities among peers, and 3) self-monitoring. Weissberg and Gesten (1982) argue that there is a need for daily "dialoguing" between the teacher and students in order to bring the newly acquired skills into the real-life problem situations that arise in the classroom. Whenever a problem occurs in the classroom setting the teacher engages the student/students in a discussion using the problemsolving steps which have been taught to solve the issue. They found that by incorporating this into their second study that it had a positive effect on teacher ratings of children's behavioral adjustment (Weissberg et al., 1981 a).

Co-operative activities among peers have been used to promote generalization. Bierman and Furman (1984) found coaching, along with co-operative peer group

activities, to be effective in learning both new skills and increasing peer acceptance. Peer-group control of inappropriate behavior has been documented in previous research (Buehler, Patterson & Furniss, 1966; Gelfand, Gelfand & Dobson, 1967). Bolstad and Johnson (1972) found that preventing children from interacting with and supporting the disruptive behavior of other children caused a "generalized decrease in disruptive behavior." It would seem reasonable to conclude that if disruptive behavior can be influenced by peers, then correct social behavior can also be influenced by peers.

Stokes and Baer (1976) found that peer-tutoring and monitoring of behavior (i.e., peers encouraging one another to use newly acquired problem-solving skills) aided the generalization of skills into settings not directly connected with the learning situation. Carden-Smith and Fowler (1984) suggest that peers may be more effective in intervention than teachers as they are more able to give continuous attention in more settings and their presence may serve as a cue to their classmates to engage in a socially acceptable manner. It was found that both the children receiving intervention and the children providing it benefitted.

Dineen et al. (1977) conducted a study using peer

tutors to assist weaker students in improving spelling accuracy. It was found that the tutors' accuracy also increased and that they also learned good managerial skills. Greenwood et al. (1981) showed that peers used to monitor another's behavior learned skills in praising, giving instructions, providing feedback and implementing a consequence system of awarding or withdrawing points.

Carden-Smith and Fowler (1984) combined their peer program with a token reinforcement program. Points were awarded for participation and withheld for disruption during daily transition and cleanup activity. The results indicated a significant reduction in disruptive behavior and an increase in participation.

Self-monitoring (i.e., observing and recording one's own behavior) one's use of social problem-solving skills could be useful in promoting generalization (O'Leary & Dubey, 1979; Rosenbaum & Drabman, 1979). In their review of the literature on self-control in the classroom, Rosenbaum and Drabman (1979) concluded that recording one's own behavior can lead to improved behavior, and that there is some evidence that self-control strategies led to generalization over time.

From the above literature review, it is apparent that it is not only important to use a multi-method

approach to teach and evaluate social skills programs but it is also necessary to include methods for the promotion of generalization and maintenance of these skills.

The frequent need for generalization of therapeutic behavior change is widely accepted, but it is not always realized that generalization does not automatically occur simply because a behavior change is accomplished. Thus, the need actively to "program" generalization, rather than passively to expect it as an outcome of certain training procedures, is a point requiring both emphasis and effective techniques (Baer, Wolf, & Risley, 1968).

Generalization usually means the transfer of behavior from one setting to a different setting. In this study generalization took a slightly different focus in that problem-solving skills, as assessed by role-play, and taught in the curriculum were expected to lead to more positive classroom behavior (gutsy, frustration tolerance, peer socialibility) and less negative classroom behavior (shy-anxious, acting out).

The purpose of this research was to study strategies to promote generalization of problem-solving skills in the classroom and school setting. This research combined a method of social skills training based on The Rochester Problem-Solving (SPS) Program (Weissberg et al., 1980), with teacher-student "dialoguing", peermonitoring, and self-monitoring.

The hypotheses of this research study were as follows:

- 1) Relative to children in the no treatment control class, children in both classes receiving social problem-solving skills training would show significantly better social skills performance at the end of the program.
- 2) Relative to children in the no treatment control class and the social problem-solving skills training only class, children in the class receiving social problem-solving skills training with teacher-student "dialoguing" and self-monitoring would show significantly greater teacher rated socially skilled behavior, self-reported psychological well-being, and peer rated acceptance.

Method

Participants

Three classes of children from one school were studied. Two classes participated in the program: One grade three class with 27 children and one grade three-four class with 21 children. One third grade class with 14 students served as a control group. One of the teachers in the program had been involved in a previous study and asked to be involved again. The second teacher involved in the program had heard about it from those in the program the previous year and asked to be included. The third teacher was approached and asked if she would agree to act as the control group. All three teachers were female.

Curriculum -

The Rochester Social Problem-Solving Program was followed. It consisted of 34 lessons with a supplementary unit of 6 lessons, and was taught as part of the regular classroom curriculum in both intervention classes.

In the first experimental group, the program was taught daily from the second week of October until the

third week of January. This consisted of formal lessons for a period of one hour per day and was reinforced by teachers, using the program steps and problem-solving methods with the children whenever problems arose in the group (i.e., "dialoguing" was used). A formal, weekly class meeting was held from the third week of January until the end of May to review and reinforce the material taught in the program. As a means of aiding generalization, daily journals were kept by each child as a means of self-monitoring daily success in conflict resolution and friendship making (see Appendix A). Weekly friendship pairs were also chosen for the purpose of friendship building. Each pair spent two formal 15 minute periods together each week. The first session consisted of an interview session by which each member of the pair attempted to discover as much as possible about his/her partner. The second session was spent working together on an assignment, project or game. The friendship-pairs groups were discontinued in January at the end of the formal program.

The second experimental group used the program on a weekly basis, from October to January, without monitoring through journals or friendship pairs. The teacher was encouraged to dialogue with the children and to encourage

them to use their new skills to solve problems as they occurred throughout the day. The control group received no program other than the incidental handling of problems, by the teacher, as they occurred.

The program was taught by the classroom teachers with this researcher acting as a consultant, one hour per week from October to January, under the supervision of Dr. Geoffrey B. Nelson of the Department of Psychology of Wilfrid Laurier University. The length of the formal program was left open in order that the teachers could be flexible in moving ahead quickly when it seemed appropriate and remaining longer on sections which seemed to be more difficult for the children to grasp and apply. The formal program was complete by the end of January, 1985.

Assessment Measures

All of the following measures were administered before the program started and at the conclusion of the program.

Social skills performance. A role-play test adapted from Gottman, Gonso, and Rasmussen (1975) was used to assess the children's ability to perform social skills taught in the curriculum.

The research assistant (an adult) asked the child to pretend that she (the assistant) is a new child in the school with whom the child wants to make friends. She asked the child to try to find out how the new child feels. Throughout the role-play, the researcher hung her head, spoke in a flat tone of voice and resisted the efforts of the child to strike up a conversation. During role-playing she recorded the child's responses, via shorthand, on paper and later transcribed them. Scoring was done by the same research assistant at a later time.

This test was first scored using the original method developed by Gottman et al (1975) assigning points for greeting, asking for information, extending inclusion and giving information. It was then scored by determining total number of different solutions and a flexibility score determined for solutions subsequent to the first (see Appendix B for details).

A second role-play situation began with the researcher explaining to the child that another child tries to take a bat away from him/her when it is his/her turn to be at bat. The researcher asked the child how he/she would resolve the conflict and how he/she felt about the situation (see Appendix B). The total number of solutions generated and a flexibility score were calculated for this measure.

Social skills generalization. Teacher ratings of children's classroom adjustment on the Child Behavior Rating Scale (Weissberg et al., 1981 a & b) were used. The scale has two sections: 11 problem behaviors rated on five-point scales in terms of level of severity and 15 competence behaviors also rated on five-point scales. Factor analysis of the problem behavior items has revealed three factors: 1) acting-out, 2) shy-anxious, and 3) learning problems. Factor analysis of the competence behaviors has revealed three factors: 1) frustration tolerance, 2) gutsy, and 3) peer sociability. Additionally, total scores for problem behavior and competence behavior are derived by summing across the factors (see Appendix C).

Psychological well-being. Wheeler and Ladd's (1982) Children's Self-Efficacy for Peer Interaction Scale was used to assess the children's psychological well-being. The scale consists of 22 items which tap children's feelings of confidence and self-esteem in dealing with a variety of social interaction situations. Children rate their confidence in handling each of the situations on four-point scales ranging from "very hard" to "very easy" to handle. Reliability of the scale for

grade 4 students has been estimated to be .84, and the scale has been found to correlate significantly with measures of self-esteem and teacher and peer ratings of social skill (Wheeler & Ladd, 1982), (see Appendix D).

Friend nomination. In the "best friends" peer nomination, children were asked, "Who in your class do you consider to be a friend who is very important to you?" For this measure, the number of friends listed and the number of times one is listed as a friend are both added up and an average is taken. Test-retest reliability of R = .69, p < .01, for "best friends" has been reported (Oden & Asher, 1977). Gresham (1981) found a positive correlation between peer nomination and classroom observations of prosocial behavior.

Results

To determine if the social skills program resulted in significant changes in each of the experimental groups relative to children in the control group, analyses of variance (ANOVA) were computed for the change scores (post-test score minus pre-test score) for each assessment measure.

Table 1 presents the means, standard deviations and ANOVA change score results for the Social Skills Role Play Test (SSRPT). The three groups did not differ significantly on any of the measures. There was a tendency for all three groups to improve on all measures. Paired \underline{t} tests were completed to examine changes in each of the three groups for pre to post program testing. Experimental Group 1 showed significant improvement on Total Friendship Solutions, \underline{t} (24) = 5.02, \underline{p} < .01; Friendship Flexibility, t (24) = 5.31, p < .01; Gottman Rating, t(24) = 3.49, p < .01; Total Conflict Solutions, t (24) =3.77, \underline{p} < .01; and Conflict Flexibility, \underline{t} (24) = 4.39, \underline{p} < .01. Likewise, Experimental Group 2 also showed significant gains on Total Friendship solutions, t (19) = 7.06, p < .01; Friendship Flexibility, t (19) = 7.06, p < .01.01; Gottman Rating, \underline{t} (19) = 3.03, \underline{p} < .01; Total

Table 1

Means, Standard Deviations, and ANOVA Results for Experimental and Control Groups on the Social Skills Role Play Test

		Experimental	ental	Experimental	nental	Control	01	
Dependent Measure	Time of Testing	Group I M	p I SD	Group M	z dr SD	Σ	SD	F test
Friendship Total Solutions	Pre Post	1.32	.95	1.50	1.05	1.27	.47	\overline{F} (2,53)= .17
Flexibility	Pre Post	1.64 7.92	1.35	1.70	1.46	1.18	1.40	\overline{F} (2,53)= .57
Gottman Rating	Pre Post	5.20 8.56	2.41 5.17	6.30	2.60	5.73	2.10	\overline{F} (2,53)= .06
Conflict Total Solutions	Pre	1.52	.59	1.85	.88	1.80	.63	\overline{F} (2,53)= .17
Flexibility	Pre Post	1.44 5.84	1.36	1.80	1.44 4.15	2.20	1.14	$\overline{\mathbf{E}}$ (2,52)= .07

50° > d

Conflict Solutions, \underline{t} (19) = 4.47, \underline{p} < .01; and Conflict Flexibility, t (10) = 4.42, \underline{p} < .01.

However, Group 3, the Control Group, also improved significantly on Total Friendship Flexibility, \underline{t} (10) = 3.37, \underline{p} < .01; Total Conflict Solutions, \underline{t} (9) = 3.31, \underline{p} < .01; and Conflict Flexibility, \underline{t} (9) = 3.09, \underline{p} < .05; but they did not significantly improve on the Gottman Rating, \underline{t} (10) = 1.38.

From these results it is noted that the children in the two intervention groups did not show significantly greater changes than the no treatment control group as had been hypothesized.

The results for the Child Behavior Rating Scale (CBRS) presented in Table 2, showed an effect approaching significance ($\underline{p} < .09$) for Acting Out - both experimental groups showed a decrease while the control group showed an increase in acting out behavior from pre-test to post-test. The first experimental group showed an increase in shy-anxious behavior from pre-test to post-test while the second experimental group and the control group showed a decrease in this behavior. There was a significant ($\underline{p} < .05$) between groups difference on this variable.

The results of the Children's Self-Efficacy for

Table 2

Means, Standard Deviations, and ANOVA Results for Experimental and Control Groups on the Child Behavior Rating Scale

		Experimental	ntal	Experimental	nental	Control	ol		
Dependent Measure	Time of Testing	Group	1 SD	Group M	SD SD	М	SD	F test	1
Problems Acting Out	Pre Post	12.00	5.20	8.57	6.78	11.57	3.86	$\mathbf{F} \ (2,59) = 2.5$	2
Shy-Anxious	Pre Post	8.33 8.96	4.08	8.05	4.31	7.14	2.91 2.18	(2,59) = 4.0	بر *
Learning	Pre Post	7.48	2.78	5.81	3.49	6.93	1.44	\overline{F} (2,59)= .4	7
Total	Pre Post	27.85	9.78	22.43 20.18	13.74	25.64 25.00	5.64	\overline{F} (2,59)= .63	m
Competence Frustration Tolerance	Pre Post	24.67	96.9	34.71	9.65	22.64	5.00	F (2,59)= .7.	4
Gutsy	Pre Post	5	7	5.1 4.5	0.0	0.7		(2,59) = 1.5	, 0
Peer Sociability	Pre Post	13.15	2.76	14.81 14.32	3.76	11.64	1.87	(2,59)= 1.2	ω
Total	Pre Post	48.44	10.94	64.62 63.09	15.31	45.00 47.86	8.11	\overline{F} (2,59)= .88	∞

Peer Interaction Scale (CSPI) presented in Table 3 showed no significant changes between groups. Likewise, there were no significant between group differences on either of the two sociometric measures as was hypothesized.

Correlation coefficients were computed to assess the relationships between the dependent measures. Results for pre-test correlations between subscales of the SSRPT showed that there were four significant positive correlations out of the possible 10. Post-test results showed that there were 10 significant positive correlations.

Correlations were computed between the SSRPT and the CBRS measures. At pre-test, one of the 40 correlations was significant, while three of the 40 were significant at post-test. Correlations were also computed between the SSRPT and CSPI and the two sociometric measures. At pre-test, none of the 15 correlations with the CSPI was significant, while three of 10 correlations with the sociometric measures were significant. At post-test, seven of fifteen correlations with the CSPI were significant in the positive direction, while none of the 10 correlations with the sociometric measures was significant.

Table 3

Means, Standard Deviations, and ANOVA Results for Experimental and Control Groups on the Children's Self-Efficacy for Peer Interaction Scale

			* ···			-			
	Time of	Experimental Group l	ntal 1	Experimental Group 2	nental o 2	Control	51		
Dependent Measure	Testing	Ψ	SD	W	SD	М	SD	F test	
Non-conflict	Pre	28.63	3.74	28.57	5.52	29.31	3.94		
	Post	28.37	5.73	29.05	6.53	30.77	3.85	\overline{F} (2,58)= .26	.26
Conflict	Pre	26.44	7.17	29.24	7.87	24.15	4.63		
	Post	27.41	8.74	30.50	8.07	29.71	6.74	\overline{F} (2,58)= 1.33	1.33
Total	Pre	55.44	8.61	57.81	11.02	53.46	7.20		
	Post	55.78	13.64	59.55	12.93	09.09	8.29	\overline{F} (2,58)= 1.07	1.07

,0° > d

Table 4

,	Intercorrelations of the	of the Measures on	on the Social Skills Role Play Test	Skills Ro	le Play Test	
		C +1	2	3	4	5
<u>,</u>	Friendship-Total Solutions		* 88 .	* 42*	*09.	*09°
2.	Friendship-Flexibility	. 83*		*88*	*89*	*99.
e m	Friendship-gottman Rating	.07	.01	/	*99.	.64*
4.	Conflict-Total Solutions	.21*	.14	.10	. /	*16.
5.	Conflict-Flexibility	.14	.17*	.07	.82*	
					/	

Pre-test correlations are below the diagonal; post-test correlations are above the diagonal. Note:

* p < .05

Table 5

	Conflict Flexibility	06 .01 15	.24*	07 01 01 04 06
Play Test g Scale	Conflict Total Solutions	. 00 04	. 28*	12 09 04 03 03
ial Skills Role eer Interaction Behavior Rating	Friendship Gottman Rating	.02	. 0 8 0.	1.15 1.22 1.14 1.18
on the Soci icacy for Pe d the Child	Friendship Flexibility	01 03 .07	.10	. 04 . 08 . 10 . 07 . 02
Pre-Test Correlations of the Measures with the Children's Self-Eff Scale, the Sociometric Measures, an	Friendship Total Solutions	04 11 .12	.17	.05 .20* .15 .03 08
Pre-Test Corre		Wheeler and Ladd Total Conflict Non-Conflict	Sociometric Friends Listed Listed as Friend	Acting Out Shy Anxious Learning Problem Total Peer Sociability Gutsy Frustration Tolerance Competence Total

Table 6

Post-Test Correlations of the Measures on the Social Skills Role Play Test with the Children's Self-Efficacy for Peer Interaction Scale, the Sociometric Measures, and the Child Behavior Rating Scale Scale,

Conflict Flexibility		.25* .27* .16		.03		04	80.1	- 08	- 08	.12	.11	.12	90.
Conflict Total Solutions		.32**		01		01	80	08	90	60.	.14	60.	90.
Friendship Gottman Rating		.25*		02		60	11	05	10	.10	•16	.10	.13
Friendship Flexibility		.17		05		14	17	18	19	.18	.25*	.18*	.21*
Friendship Total Solutions		.16 .16		.01		07	60	11	11	05	.11	.05	.07
- '	Wheeler and Ladd	Total Conflict Non-Conflict	Sociometric	Friends Listed Listed as Friend	CBRS	Acting Out	Shy Anxious	Learning	Problem Total	Peer Sociability	Gutsy	Frustration Tolerance	Competence Total

Discussion

The present program attempted to study strategies to promote generalization of social problem-solving skills in the classroom and school setting. First, it was found that measures of social problem-solving skill performance, as assessed by the role-play method, were not found to be consistently related to teachers' ratings of behavioral adjustment, self-efficacy, or peer acceptance. Secondly, the results indicated that all children in the study, including the control class, improved in social skills performance. Thirdly, there appeared to be little change in classroom behavior, self-efficacy or peer acceptance. Each of these findings will be discussed in this section.

The lack of significant correlations between measures of social problem-solving skill performance and teachers' ratings of behavioral adjustment, self-efficacy, or peer acceptance is consistent with findings reported by other researchers (Gesten et al., 1982; Kazdin et al., 1984; Weissberg et al., 1981 a & b). Thus it appears that a basic premise for social problem-solving training relating problem-solving skills to behavioral adjustment does not appear to be supported.

This indicates that we don't know what particular skills are important for children of this age. There is a need to do more observation of children and, from the information gathered, to develop more valid and age appropriate scales to measure social skills.

It was found that the children who participated in the intervention showed significant improvement in their performance of affective and social problem-solving skills. This is consistent with previous findings (Gesten et al., 1982; Weissberg et al., 1981 a & b). Results of this study also suggest that such effects could be due to maturation, the passage of time or variables other than the program such as teacher differences. This is consistent with the findings of Rickel et al. (1983).

The control group teacher was unable to account for the positive changes in her pupils. Her main intervention, in discipline problems, was that of time out, and she did not implement social problem-solving in any way. It was suggested that the positive gains in all children in the program could possibly be the result of a natural maturation process rather than directly related to any formal program.

Finally, there were no gains in behavioral adjustment, self-efficacy or peer acceptance. Only the

Rochester group (Weissberg et al., 1981 a & b) has reported positive results on behavioral adjustment, but not self-esteem or peer acceptance. Furthermore their results have been mixed and positive changes reported do not appear to be large.

Teachers in the two intervention classes perceived that children were more independent in their problem-solving by the end of the program. Following the program, there was little direct intervention by teachers in problem situations unless they were of a serious nature (i.e., aggression). When approached with a problem the teachers would "dialogue" with the children around the problem-solving steps and their application to the present situation. Over time the children were observed to be applying the problem-solving steps without the assistance of the teachers. Based on their own observations, the teachers concluded that the program was in fact useful and they felt positively enough about it to continue its use with their classes the next year and to encourage other teachers in the school to begin using it. It was suggested by both teachers, that perhaps the CBRS was not sensitive enough or did not assess the correct areas to reflect what changes actually did take place in their children. This is consistent with the beliefs of

Rubin & Krasnor (1983). It may be that the value of social problem-solving training has been overestimated. Perhaps, as stated by the teachers, children do generalize the skills they have learned when "dialoguing" encourages them to do so. Research has not developed in vivo measures of social problem-solving and there is a need for future research to focus on actual classroom and playground situations to more accurately determine the specific effects of social problem-solving training. As also suggested by the teachers, perhaps the CBRS is not sensitive enough or does not assess the correct areas to reflect the actual changes which take place. Perhaps future research needs to develop an actual test of social problem-solving skills which would more accurately reflect children's ability to function in this area.

Although social skills training has become a rapidly growing area of interest and research for both psychologists and educators, the results of studies in this area would indicate that the value of cognitive approaches with young children is questionable.

Hobbs, Moguin, Tyroler and Lahez (1980) stated:

The use of direct behavioral observation measures in the school or home environment appears to be essential to an adequate evaluation of the clinical utility of cognitive behavior therapy with children.

However, in the few instances in which investigators have employed such measures, change in these settings has seldom been observed.

Similarily, Urbain & Kendall (1980) concluded as follows: "Although the effects of treatment on measures of behavioral adjustment have sometimes been examined, the results have not always been positive."

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APPENDIX A

Color-Coded Journal Pages

I had a terrific day! I had no problems. Here's why it went well.

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I had a good day.

My problems were small and I solved them all. Here's how.

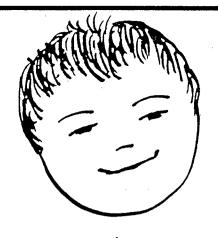


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My day was okay.

I had some problems.

This is what happened.



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My day was not very good. I had some real problems I couldn't solve.

I had a terrible day.
I had a lot of big
problems I couldn't
solve.



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APPENDIX B

Role-Play Test Instructions and Scoring

Instructions to Children

Boys and girls, my name is De Bryant, and I am a student at Wilfrid Laurier University. I am trying to find out some information on how children make friends and how they solve problems that they may have with their classmates. I have asked permission from your teacher and parents to have you help me with this. I will be asking you some questions about how you make friends and how you solve different problems that you may have with other children. However, you may not wish to help me with this or you may say that you will and then later change your mind. If this happens, please let me know and you may stop at any time. It is okay if you do not want to take part in this study.

Role-Play Test Scoring

There are several different methods for scoring the roleplay tests. First, in the friendship-making situation, the original scoring system developed by Gottman et al. (1975) was used. They assigned points as follows: greeting, one point; asking for information (e.g., "Where do you live?), two points; extending inclusion (e.g., "Wanna come over to my house sometime?"), three points; and giving information (e.g., "My favorite sport is baseball"), four points. Using this system, scores can range from 0 to 10. La Greca and Santogrossi (1980) found inter-rater reliability of this measure to be .89, p < .01, and Gottman et al. (1975) found that this measure differentiated popular from less popular children. A second scoring method was used for the friendship-making situation: the total number of different solutions the child gave to try to make friends and understand the feelings of the other was determined. For solutions subsequent to the first one, a flexibility score was assigned: no further solution offered, no points: the same solution offered again, one point; a modification of the first solution offered, two points; a new solution offered, totally different from the first, three points. This was found by totalling the number of times the same first solution was given.

In the second role-play test, conflict situation, a flexibility score was determined, as in the friendship-making situation. Also, the total number of solutions offered by the child to try to solve the problem was recorded.

APPENDIX C

Child Behavior Rating Scale

CHILD BEHAVIOR RATING SCALE

Child's Name:
Teacher's Name:
Date:
Section I: Listed below are specific behavior and adaptation problems which some children experience. Please rate <u>each</u> item in Section I with <u>one</u> number on the following scale of problem severity:
<pre>1 = not a problem 3 = moderate problem 5 = very serious problem</pre>
2 = very mild problem 4 = serious problem
Disruptive in class Unable to express feelings
Talks out of turn, Worried, frightened, tense
disturbs others while they are working Lacks self-confidence
Overly aggressive to Reacts poorly to disappointment
peers (fights, is over- bearing, belligerent) Depends too much on teacher to solve problems
Impulsive, is unable to Has difficulty learning
Shy, timid
Section II: Because we are interested in children's strengths or competencies, we have developed a list of items identifying children's positive resources. Please rate <u>each</u> item in Section III with <u>one</u> number from the following scale.
<pre>1 = not at all 3 = moderately well 5 = very well</pre>
2 = a little 4 = well *Please note that 5 represents the most positive rating*
Feels good about himself Anger, when displayed, is justified or herself
Shares things with others Expresses ideas willingly

	Can accept things not	Well liked by classmates
	going his way	Makes friends easily
	Defends his views under group pressure	Thinks before acting
·	Resolves peer problems	Accepts legitimate imposed limits
on his own	Expresses needs and feelings	
	Copes well with failure	appropriately
	Is able to question rules that seem unfair or unclear to him	Functions well in unstructured situations

APPENDIX D

Wheeler and Ladd Test Friends Nomination Test Answer each of the following questions by circling the word that best answers the question for you.

HARD! If you circle this answer, it means it is very hard for you.

hard If you circle this answer it means it is a little hard for you.

easy If you circle this answer, it means it is a little easy for you.

EASY! If you circle this answer, it means it is very easy for you.

	Some kids want to play a game. Asking them if you can play is
	for you.
2.	Some kids are arguing about how to play a game. Telling them the rules is for you. HARD: hard easy EASY:
3.	Some kids are teasing your friend. Telling them to stop is HARD! hard easy EASY!
	You want to start a game. Asking other kids to play the game is for you. HARD! hard easy EASY!
5.	A kid tries to take your turn during a game. Telling the kid it's your turn is for you. HARD! hard easy EASY!
6.	Some kids are going to lunch. Asking if you can sit with them is for you. HARD! hard easy EASY!
7.	A kid cuts in front of you in line. Telling the kid not to cut in isfor you. HARD! hard easy EASY!
8.	A kid wants to do something that will get you into trouble. Asking the kid to do something else is for you. HARD! hard easy EASY!
9.	Some kids are making fun of someone in your classroom. Telling them to stop is for you. HARD! hard easy EASY!
10.	Some kids need more people to be on their teams. Asking to be on a team is for you. HARD! hard easy EASY!
11.	You have to carry some things home after school. Asking another kid to help you is for you. HARD! hard easy EASY!

12. A kid always wants to be first when you play a game. Telling the kid you are going first is _____ for you. easy HARD! hard 13. Your class is going on a trip and everyone needs a partner. Asking someone to be your partner is _____ for you. HARD! easy EASY! hard A kid does not like your friend. Telling the kid to be nice to your easy HARD! hard friend is for you. Some kids are deciding what game to play. Telling them about a game hard easy you like is _____for you. HARD! You are having fun playing a game but the other kids want to stop. Asking them to finish playing is _____ for you. EASY! HARD! hard easy You are working on a project. Asking another kid to help is easy hard HARD! for you. Some kids are using your play area. Asking them to move is HARD! hard easy for you. 19. Some kids are deciding what to do after school. Telling them what you want to do is _____ for you. HARD! hard easy EASY! A group of kids wants to play a game that you don't like. Asking them to play a game you like is _____ for you. HARD! hard easy Some kids are planning a party. Asking them to invite your friend 21. HARD! hard easy EASY! is ____ for you. 22. A kid is yelling at you. Telling the kid to stop is _ for you. hard easy EASY! HARD!

Friends Nomination

Who in your class do you consider to be a friend who is very important to you? Write down their names here.

APPENDIX E

Letter to Parents (Experimental Group)

Dear Parent(s):

My name is Patricia Carson, and I am an M.A. student in the Social Community Psychology Program at Wilfrid Laurier University. Under the direction of Dr. G. Nelson, I am working with your child's teacher (name of teacher) on a social skills program. We are evaluating this program to see how effective it is. We would like to collect some research information on your child. This information consists of your child's knowledge of and ability to use social skills, teacher's ratings of behavior in the classroom, your child's feelings of confidence in getting along with others, and your child's views on his/her friendships with other children in the class.

All of this information will be kept strictly confidential. Furthermore, your child can refuse to participate or withdraw from participation in the research at any time if he/she wishes. Collecting information will require one-half hour with the whole class, in both October and April, and ten minutes out of class, for each child. If you consent to having this information gathered on your child, please sign the enclosed form and return it to your child's teacher as soon as possible. At the end of the school year, we will be sending you a summary of the research findings.

Thank you for your help.

Sincerely,

Geoffrey Nelson, Ph.D. Assistant Professor of Psycholog

Patricia Carson, B.A.

APPENDIX F

Letter to Parents
(Control Group)

Dear Parent(s):

My name is Patricia Carson, and I am an M.A. student in the Social Community Psychology Program at Wilfrid Laurier University, working under the direction of Dr. G. Nelson. In your child's class, we are trying to find out how children's social skills and friendships change over the school year without a special program.

Therefore, we would like to collect some research information on your child. This information consists of: your child's knowledge of and ability to use social skills, teacher's rating of classroom behavior, your child's feeling of confidence in getting along with other children, and your child's views on his/her friendships with other children in the class.

All of this information will be kept strictly confidential. Furthermore, your child can refuse to participate or withdraw from participation in the research at any time if he/she wishes. Collecting the information will require on-half hour of time with the whole class, in both October and April, and ten minutes out of class, for each child. If you consent to having this information gathered on your child, please sign the enclosed form and return it to your child's teacher as soon as possible. At the end of the school year, we will be sending you a summary of the research findings.

Thank you for your help.

Sincerely,

Geoffrey Nelson, Ph.D.
Assistant Professor of Psychology

Patricia Carson, B.A.

APPENDIX G

Consent Form

I agree to have my child participate in the Social Skills research conducted by Patricia Carson and Dr. G. Nelson of the Psychology Department of Wilfrid Laurier University.

Yes	No
Signature of Parent or Guardian	
Name of Child	

APPENDIX H

Teacher Letter to Parents

Dear Parent/Guardian:

This year we have decided to include a curriculum unit on social skills development for our classes. We believe this is an important part of curriculum because children's social development is closely related to their school learning and to many aspects of life.

Patricia Carson who is a graduate student in Psychology at Wilfrid Laurier University will be helping us to teach this unit. The unit will focus on understanding and recognizing feelings in oneself and others, skills in friendship making, and skills in resolving conflict and problems with other people. There will be approximately 18 one hour sessions devoted to this unit beginning in October and ending in April.

If you have any questions about the unit, please contact us at the school.

Sincerely,

Grade 3 Teacher

Appendix I

Feedback to Parents



Department of Psychology

Dear Parents,

In the fall of 1984 you agreed to allow your child to participate in a research study evaluating a social skills development program. At that time I promised to send you a summary of the findings of this research. Thank you for your interest and cooperation. The study has been completed and I am now able to share the results with you.

The children in Mrs. Girard's, and Miss Pattersons class participated in a curriculum unit on social problem-solving skills. The children in Mrs. Oliva's class did not participate in the program but were used as a comparison group.

Children in all the classrooms showed improvement in their social problem-solving skills. However, there were no significant changes in children's classroom behavior according to the teachers' ratings.

The program resulted in children showing more independence in their approach to problem-solving and has encouraged teachers to continue using these techniques to develop problem-solving skills in children's daily activities in their classrooms this year.

If you have any questions, phone me at 886-6550, after 5:00 p.m.

Sincerely, Patricia M. Carson, B.A. Patricia M. Carson, B.A.