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Emphasis on Adolescents and Young Adults

SOCIAL SKILL PERFORMANCES OF LEARNING
DISABLED, NON-LEARNING DISABLED, AND
DELINQUENT ADOLESCENTS

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The University of Kansas Institute for Research in Learning Disabilities is supported by a contract (#300-77-0494) with the Bureau of Education for the Handicapped, Department of Health, Education, and Welfare, U. S. Office of Education, through Title VI-G of Public Law 91-230. The University of Kansas Institute, a joint research effort involving the Department of Special Education and the Bureau of Child Research, has specified the learning disabled adolescent and young adult as the target population. The major responsibility of the Institute is to develop effective means of identifying learning disabled populations at the secondary level and to construct interventions that will have an effect upon school performance and life adjustment. Many areas of research have been designed to study the problems of LD adolescents and young adults in both school and non-school settings (e.g., employment, juvenile justice, military, etc.)

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* *

Cooperating Agencies

Were it not for the cooperation of many agencies in the public and private sector, the research efforts of The University of Kansas Institute for Research in Learning Disabilities could not be conducted. The Institute has maintained an on-going dialogue with participating school districts and agencies to give focus to the research questions and issues that we address as an Institute. We see this dialogue as a means of reducing the gap between research and practice. This communication also allows us to design procedures that: (a) protect the LD adolescent or young adult, (b) disrupt the on-going program as little as possible, and (c) provide appropriate research data.

The majority of our research to this time has been conducted in school settings in both Kansas and Missouri. School districts in Kansas which have participated or currently are participating in various studies include: Unified School District (USD) 437 Auburn-Washburn; USD 384, Blue Valley; USD 204, Bonner Springs; USD 308, Hutchinson; USD 500, Kansas City; USD 469, Lansing; USD 497, Lawrence; USD 453, Leavenworth; USD 480, Liberal; USD 233, Olathe; USD 290, Ottawa; USD 305, Salina; USD 450, Shawnee Heights; USD 512, Shawnee Mission; USD 464, Tonganoxie; USD 202, Turner; and USD 501, Topeka. Interlocal agencies in Kansas which have participated include: the Central Kansas Cooperative in Education, Salina; the East Central Kansas Special Education Cooperative, Paola; and the South Central Kansas Special Education Cooperative, Pratt. Parochial schools involved in our studies include: Bishop Miega High School, Shawnee Mission; Bishop Ward High School, Kansas City, Kansas; and O'Hara High School, Kansas City, Missouri. The Kansas State Department of Education also has been helpful in our research efforts.

Studies are also being conducted in several school districts in Missouri, including Center School District, Kansas City; the New School for Human Education, Kansas City; the Kansas City, Missouri School District; the Lee's Summit School District; the Raytown School District; and the School District of St. Joseph. In addition, school districts in Beaverton, Oregon; Delta County, Colorado; Elkhart, Indiana; Houston, Texas; Jonesboro, Arkansas; Montrose County, Colorado; Omaha, Nebraska; and Ottumwa, Iowa, have also participated in our studies. The Iowa Department of Public Instruction also has been helpful in our research effort.

Agencies currently participating in research in the juvenile justice system are the Overland Park, Kansas Youth Diversion Project; the Douglas, Johnson, Leavenworth, and Sedgwick County, Kansas Juvenile Courts; and the judicial district serving the Pittsburgh-Parsons, Kansas area. Other agencies which have participated in out-of-school studies are: Penn House and Achievement Place of Lawrence, Kansas; Kansas State Industrial Reformatory, Hutchinson, Kansas; the U. S. Military; and Job Corps. Numerous employers in the public and private sector have also aided us with studies in employment.

While the agencies mentioned above allowed us to contact individuals and supported our efforts, the cooperation of those individuals--LD adolescents and young adults; parents; professionals in education, the criminal justice system, the business community, and the military--have provided the valuable data for our research. Our sincere appreciation is expressed to all those who have contributed information to our research effort. This information will assist us in our research endeavors that have the potential of yielding greatest payoff for interventions with the LD adolescent and young adult.

Abstract

Two controversial issues in the field of learning disabilities are: (a) whether LD adolescents exhibit social skills deficits when compared to their nonhandicapped peers; and (b) whether these deficits have negative impact on the lives of LD adolescents and young adults. The purpose of this study was to address the first issue by comparing the social skills performances of LD adolescents on eight general social skills to the performances of two other groups of youths: a group of nonhandicapped adolescents who were members of a high-school band (non-LD group) and a group of court-adjudicated juvenile delinquent adolescents who had been referred for social skills training by their probation officers (JD group). Social skills were tested individually in role-playing situations. The results showed that the non-LD youths performed significantly better than the other two groups on seven of the eight skills. The LD youths performed significantly better than the JD youths on only one skill, resisting peer pressure. A discriminant analysis demonstrated that the LD group in this study was heterogeneous with regard to social skills.

The results of the study suggest a cause for concern for those LD youths who perform significantly lower than the non-LD youths and certainly for those LD youths who exhibit deficits similar to those of youths who have been referred by society for social adjustment problems (JD group). One implication of the results is the need for curricula and procedures for social-skills training at the secondary level.

SOCIAL SKILL PERFORMANCES OF LEARNING DISABLED,
NON-LEARNING DISABLED, AND DELINQUENT ADOLESCENTS

Important questions have surfaced in the field of learning disabilities concerning the relationship between social-skill deficiency and the condition of learning disabilities in adolescents. For example, it is unclear whether LD youths suffer from poor or inadequate social skill repertoires in addition to their learning disabilities. Without appropriate social skills, LD adolescents are at a definite disadvantage. They would be unable to obtain desired rewards and meet personal goals because of their inability to interact appropriately with others. As a result, they might resort to inappropriate or even illegal means to get what they want. A second important question concerns the relative skill levels of LD and normal youths. If learning disabled youths' social-skills performance is poor, how do their skill levels compare to those of non-learning disabled youths? Another question relates to the homogeneity of the LD adolescent population with regard to social skills. Are all LD adolescents uniformly poor in social skill performance, or are just certain LD youths lacking in these skills? A final question relates to the functional nature of LD adolescents' social-skill deficits. If LD youths are poor in social skill performance compared to non-LD youths, how do they compare to other youths suffering from adjustment problems?

The available research literature provides incomplete answers to the above questions. Research with elementary-school children has shown that LD students interact with peers and teachers as often as non-LD students, but that they are twice as likely to be ignored or receive punishing statements (Bryan, 1974; Bryan & Wheeler, 1972). Bryan and Pflaum (1978) observed LD children in contrived interactional situations and found them to exhibit less

adaptive behavior than their non-LD peers. Other studies have shown LD children to be rated lower on sociometric measures than their non-LD peers by students in their classes (Bryan, 1974, 1976).

Research by Schumaker, Sheldon-Wildgen, and Sherman (1982) showed that the social interaction rates of LD adolescents were equivalent to those of non-LD peers. However, there is little information on the quality of these interactions. That is, how well do LD youths perform particular skills, especially those that are important and necessary for successful adjustment? Only two studies have addressed this issue with mixed results. In the first study, Matthews, Whang, and Fawcett (1980) compared the quality of LD and non-LD high-school students' social interactions in ten occupational situations as performed in role-playing situations. The LD youths performed significantly worse than the non-LD youths on four of the ten skills: participating in a job interview, accepting criticism from an employer, providing constructive criticism to a co-worker, and explaining a problem to a supervisor. In a different study, Banikowski and Alley (in prep.) compared LD and non-LD junior high students' social interaction skills using a peer-to-peer interview. They found that both groups used similar frequencies of open questions, confirming statements, requests, and relevant responses within the interviews.

Thus, the results regarding the presence of deficits in LD adolescents' social performance are somewhat mixed; however, additional evidence shows that poor social adjustment is a part of LD individuals' lives. Deshler, Schumaker, Warner, Alley, and Clark (1980), for example, collected survey data from LD and non-LD youths, their parents, and their teachers. A number of significant differences were found between the social lives of LD and normally achieving groups of youths, whereas few differences were noted between the social lives of LD and other low-achieving students. The authors found that LD adolescents

are less involved in extracurricular activities than non-LD youths. The LD youths' social activities tended not to be formally organized activities. In a study of LD young adults who had left school, White, Schumaker, Warner, Alley, and Deshler (1980) used self-report data to suggest that LD young adults are less likely than their nonhandicapped peers to be involved in structured social activities. In addition, LD young adults reported less satisfaction from their contacts with parents and relatives.

The available literature does not answer adequately the questions posed above regarding LD adolescents' social skills. Some studies suggest that the social skills of LD adolescents may not be as advanced as those of their age peers, whereas others indicate no differences. At the present time, however, no pattern has emerged, perhaps because performance has been measured on only a few skills in a limited number of situations. Further, even if differences exist in the social skills of LD and non-LD youths, it is unclear whether such differences contribute to differences in the life adjustment pattern of LD adolescents and young adults.

To date, little research has been conducted concerning the relationship of social-skills deficits and the life adjustment of adolescents. Research by Freedman, Rosenthal, Donahue, Schlundt, and McFall (1978) showed that delinquent youths often are deficient in social skills necessary for coping with a range of problem situations. Social skills research has focused on these delinquent youths based on the assumption that youths might commit illegal acts because they lacked the skills to gain rewards through legitimate means. Further, a number of studies have been conducted to teach social skills to court-adjudicated youths (e.g., Hazel, Schumaker, Sherman, & Sheldon-Wildgen, 1981b; Kifer, Lewis, Green, & Phillips, 1974; Ollendick & Hersen, 1979; Sarason, 1976; Sarason & Ganzer, 1973; Spence & Marzillier, 1979; Werner,

Minkin, Minkin, Fixsen, Phillips, & Wolf, 1975). These studies showed that court-adjudicated youths performed poorly on certain social skills prior to training and performed better on these skills after training. Two of the studies (Hazel et al., 1981b; Sarason, 1976) looked at possible effects of such training on recidivism and found fewer numbers of additional criminal offenses committed by youths who received social skills training compared to groups of adjudicated youths who did not receive such training.

In light of the mixed research results regarding the presence of social-skills deficits in LD adolescents and the impact of such deficits on their eventual life adjustment, this study was designed to explore further the possible relationship between learning disabilities and social-skill deficits in adolescents. In such an exploration, two critical decisions concerned what social skills were to be assessed and how they were to be measured. Ideally, the skills assessed should be representative of the range of skills required by adolescents in their everyday lives. Also, ideally, the measurement of such skills should take place in the everyday life of the adolescents. Although it was impossible to achieve these ideals, a reasonable approximation seemed available.

Hazel, Schumaker, Sherman, and Sheldon-Wildgen (1981a) developed a social-skill assessment instrument covering a fair range of social skills needed by adolescents. This instrument consists of eight checklists each describing a specific social skill validated by adolescents, parents, and professional judges as necessary and important for adolescents. These skills were: giving positive feedback, giving negative feedback, accepting negative feedback, resisting peer pressure, negotiating conflict situations, following instructions, conversation, and personal problem solving. A youth's skills were tested on this instrument in a series of role-play situations. As a youth

performed a given skill, he/she was rated on the percentage of skill steps performed correctly. The instrument can be scored reliably, has been shown to be sensitive to changes in a youth's skill levels from pretraining to post-training, and is highly related to independent judges' ratings of youths' social competence (Hazel et al., 1981b). Thus, by evaluating youths on this instrument, we could determine possible differences between LD and non-LD adolescents in social skill ability in eight important areas. Further, since previous research using this instrument had been conducted with court-adjudicated adolescents, it was possible to compare the social skills of these adolescents to those of both LD and non-LD youths. Thus, the performances of the court-adjudicated youths provided a comparison sample of the social skills of adolescents who had been identified by society as exhibiting problem behaviors, many of which were in the social realm.

Method

Subjects

Three groups of adolescents participated in the study. The first group consisted of 60 high-school band members from a middle-size high school (student population = 1500) in a suburban community. The students were equally distributed between the 10th, 11th, and 12th grades; half were male and half were female in each grade. This group of adolescents comprised the non-LD sample. No aptitude or achievement testing was conducted with this group of youths as part of this study; however, previous research (Schumaker, Warner, Deshler, & Alley, 1980) with students in the same band indicated that the students were high achievers. The students' median score on a group-administered aptitude test was in the 65th percentile. The overwhelming majority were achieving above the 50th percentile on group-administered achievement tests. In order to participate in band activities, members had to be

passing all their courses. None of the students in the sample was being served by the special education programs in the school, and none of them had a known history of handicapping condition.

The second group of subjects was composed of 119 LD students from the 10th, 11th, and 12th grades in three schools in two suburban school districts. One of the schools was the school the non-LD students attended. The LD students were currently being served in the LD resource room program provided by their school. They had all been formally tested, staffed, and classified as learning disabled according to P.L. 94-142 guidelines. Their mean full-scale IQ score was 92 with a range of 77 to 109 (IQ scores were available for 102 of the LD students). Their mean reading percentile score was 14 (with a range of 0 to 85), their mean writing percentile score was 15 (with a range of 0 to 80). The mean IQ score was derived by collecting full-scale IQ scores from the students' school records of the most recently administered WISC-R or WAIS and calculating an average. The mean achievement score was determined by administering the achievement clusters of the Woodcock-Johnson Psychoeducational Battery to each LD student and then calculating an average percentile score.

The third group of adolescents was composed of 57 court-adjudicated youths from juvenile courts of the two counties in which the other subjects resided. Subjects included 31 males and 26 females ranging in age from 13 years to 17 years, 8 months, with a mean age of 15 years, 6 months. These youths had a mean of 2.47 previous court contacts (with a range of 1 to 12 court contacts). They had participated in previous studies conducted by the present authors (e.g., Hazel et al., 1981b, 1982). The pretraining role-play evaluation data from the previous studies were reanalyzed for the present study. The youths had been referred to social-skill training programs because of problems in interpersonal skills. No aptitude or achievement data had been collected for these youths.

Settings

The settings in which the social skills assessment took place varied according to the group. The non-LD students were tested in small practice rooms adjacent to the band room in the school; the LD students were tested in a small room adjoining the LD resource room; and the JD youths were tested in probation officers' offices after working hours. In each setting, the room contained several chairs and a tape recorder and provided sufficient space for the tester and the youth to stand up and role play.

Measures

Eight social-skill checklists were used to evaluate the youths' performance on the skills (Hazel et al., 1981a). Each checklist consisted of a list of both the verbal and nonverbal steps required to perform a given skill. A student's performance of one skill step on any checklist was scored a "2" if the step was performed correctly, a "1" if some approximation of the step was performed, and a "0" if the step was not performed at all.

Role-play situations were chosen randomly from a list of parent and youth reports of problem situations generated in interviews with parents and youths (Hazel et al., 1981b). One situation was identified from this list which corresponded to each of the eight skills to be measured.

Observer-testers were trained to administer the role-play situations, play a part in the role-play situations, and score youths' performances by having them participate in an initial three-hour training session during which they observed each situation being role-played and learned to score the checklist. They later practiced giving the test and scoring an adult's performance of the social skills until they reached the criteria of administering the test 100% correctly and scoring the test with an agreement of 80% or above with another observer.

Interobserver reliability was determined by having two observers observe the youths' performances of a skill and independently rate the performances using the same checklist. Two observers observed 63 of the 236 youths' performances in this study. Their checklists were compared step by step. An agreement was scored if both observers placed the same rating (0 and 0, 1 and 1, or 2 and 2) next to a given skill step. Each step on which the observers were within 1 point of each other was scored as one-half agreement. When the observers' scores were 2 points apart (0 and 2), a disagreement was scored. The total number of agreements was divided by the total number of skill components scored by both observers and multiplied by 100 to yield a percentage of agreement.

Procedures

Each youth was individually tested on each of eight social skills: accepting negative feedback, conversation, following instructions, giving positive feedback, giving negative feedback, negotiation, problem solving, and resisting peer pressure. The student was accompanied to the testing room by the tester. The tester first explained to the youth what role-playing required and instructed the youth to act as he/she naturally would do in the given situation. The tester then described a situation requiring use of one of the skills. A sample situation for giving negative feedback was: "You feel that your mom/dad has been on your case about nothing and you decide to tell him/ her. He/she has been yelling at you a lot lately about little things like leaving the cap off the toothpaste. I'll play your mom/dad and we will act out the situation." The observer performed the role of parent, teacher, or friend, depending on the skill to be tested, and followed specific role-playing instructions.

Following each role play, the youth's performance was rated on the appropriate skill checklist. The rater scored each step as 0, 1, or 2. After the scoring was completed, a new situation was introduced, role played, and scored, until all eight skills had been tested and scored. The ratings for all eight skills were totalled, divided by the total number of possible points for all eight skills, and multiplied by 100 to yield a percentage of skill steps performed correctly.

Results

Interobserver Reliability

Interobserver reliability was obtained on 27% of the role-play tests. The total percentage of agreement was 82%, with a range of 79% to 87% on particular skills.

Test Results

The overall results of the behavioral role-play testing are shown in Figure 1; that is, the mean percentage of skill steps performed correctly by each group of youths across each of the eight social skills and an overall mean percentage for each group are shown. As can be seen, the non-LD youths performed every social skill at a higher level than either the LD or the JD youths. The LD youths performed slightly better than the JD youths on six of the eight skills. In terms of overall percentage of skill steps, the normal youths performed an average of 66%, the LD youths performed an average of 54%, and the JD youths performed an average of 51% of all of the skill steps across all of the skills.

Analyses of variance were conducted on the percentage scores for all of the skills combined and on the scores for each of the skills across the three groups by sex. To equalize the number of students in each group for purposes of the analyses, a subsample of each group was randomly selected, yielding a

sample of 50 youths per classification with 25 males and 25 females per group. The results of this analysis are displayed in Table 1 along with the results of Neuman-Keuls paired comparisons.

The results of these analyses can be summarized as follows. A significant difference was found between the three groups on total skill performance and for the separate skills of problem solving, resisting peer pressure, giving negative feedback, negotiation, accepting negative feedback, giving positive feedback, and conversation. The only skill for which there was not a significant difference between the groups was the following instructions skill. The variable of sex was significant for the total skills score ($F(1,144) = 7.36$, $p = .01$) and for two skills, accepting negative feedback and conversation, with females performing better than the males. The interaction of group by sex was not significant for any of the analyses. The results of the paired comparisons indicated significant differences between the non-LD youths and both the LD youths and the JD youths on all skills except following instructions. The LD youths and the JD youths were significantly different only on the skill of resisting peer pressure, with LD students performing this skill significantly better than the JD youths.

A stepwise discriminant analysis was performed on the data from the randomly selected subsamples to determine the extent to which a set or a subset of the eight dependent variables would result in correct classification of youths into groups. Each of the eight skills was considered in a stepwise fashion by the BMDP-7M computer program. Only variables which had an F-to-enter value of 4.0 or more were allowed in the analysis. Using this criterion, the four variables of resisting peer pressure, giving negative feedback, negotiation, and problem solving were included in the final step of the analysis. Together, these four variables resulted in correct classification of

68% of the non-LD youths, 52% of the LD youths, and 64% of the JD youths. The non-LD youths were misclassified as LD 22% of the time and as JD 10% of the time. The LD youths were misclassified 26% of the time as non-LD and 22% of the time as JD. The JD youths were misclassified as non-LD 20% of the time and 16% of the time as LD.

Discussion

The purpose of this study was to investigate possible differences in the social skills of LD and non-LD adolescents and to compare LD adolescents' social skills to those of other adolescents who had adjustment problems. On seven of the eight skills judged to be necessary and important for successful adjustment, the LD youths scored significantly lower than the non-LD youths. On only one of the skills did the LD youths' performance differ significantly from that of delinquent youths. Thus, LD youths may be handicapped both in terms of learning and social-skill deficits. At the same time, within the LD group considerable differences were noted among youths in their levels of acquired social skills. On the average, the LD youths scored 54% over all eight skills. The group average for individual skills ranged from 33% on problem solving to 75% on giving positive feedback. Individual youths' scores ranged from 26% to 80% on the total test scores over all eight skills. The discriminant analysis indicated that the non-LD and JD youths were classified correctly more often than were the LD youths. The LD youths were classified correctly approximately one-half of the time. As a result, as a group, the LD adolescents were found to be quite heterogeneous with respect to social-skill performance.

The results also indicated that LD youths' social skills are more similar to those of JD youths than to those of adolescents who are actively engaged in at least one school activity (school band). While on the average, LD youths'

scores were slightly higher than scores of JD youths, these differences were significant for only one skill area, resisting peer pressure.

The results of this study are comparable to the findings of Matthews et al. (1980). Three skills overlapped between their study and this study: accepting criticism, giving criticism, and giving positive feedback (complimenting). Matthews et al. found significant differences between LD and non-LD on the first two skills, whereas the present study found significant differences for all the skills. The difference between the results of the two studies may stem from differing definitions of the skill of giving positive feedback. Nevertheless, the present study and the Matthews et al. study revealed significant differences between the social-skills performances of LD adolescents and their non-LD peers.

Despite the existence of these mutually supportive results, several qualifications must be mentioned. First, although the eight social skills tested in this study had been previously validated as necessary and important for adolescents, they represent only one sample from a large universe of social skills. Second, the present assessment utilized role-playing. Currently, considerable debate surrounds the relationship between role-play performance and performance in real life (Bellack, 1979; Wessberg, Curran, Monti, Corriveau, Coyne, & Dziadosz, 1981). Third, although many average performance differences between LD and non-LD adolescents were statistically different, absolute difference in overall performance was relatively small (66% vs. 54%). Thus, it is not clear if such a difference is socially significant. In previous research utilizing identical assessment procedures, a larger magnitude of difference (33%) was found between JD youths prior to and following social-skills training; this difference was judged to be socially significant (Hazel et al., 1981b). It is not known whether the observed differences in this

study are socially significant. Nevertheless, because at least some of the LD youths' social-skill abilities appeared to be quite similar to those of youths who have engaged in illegal activities, there is cause for concern. A number of persons have proposed a link between LD and JD (e.g., Compton, 1974). Although it is doubtful that there is a direct causal link between LD and juvenile delinquency (Murray, 1976), the lack of appropriate social skills may be a factor that predisposes some LD youths and other youths to commit illegal acts.

An important treatment technique for LD youths exhibiting social-skill deficiencies is training in the areas of deficiency. Social-skill training with delinquent youths (Hazel et al., 1981b; Sarason, 1976) has been related to reductions in the future incidence of illegal acts. In a similar fashion, teaching LD youths necessary and important social skills could increase their chances for successful interpersonal interactions and decrease the likelihood of their using inappropriate behaviors to obtain desired rewards. Improved social skills would lessen LD adolescents' problems in social situations and hence increase their chances for satisfactory adjustment at home, in school, at work, and in the community.

Future research in this area should evaluate differences between the ways in which LD and non-LD adolescents perform the components of the social skills. Although LD adolescents may perform a specific skill component, their responses on that specific component may be poorer than those of the non-LD adolescents. For example, an LD youth might "say something positive" and, yet, not use words that are as positive or as appropriate to the situation as those spoken by non-LD youths. Ways of evaluating the content of social responses will need to be developed for this purpose.

In summary, the results of this study indicate that LD adolescents differ significantly from their nonhandicapped peers on a number of social skills. These statistically significant differences are cause for concern in light of the similarity found between some LD adolescents' social skills and those of the juvenile delinquents. Educators should seriously consider these results when planning instructional goals for LD adolescents. Opportunities for learning social skills must be made available for LD adolescents who exhibit social-skill deficits. Hence social-skills curricula which focus on LD adolescents' social-skill deficits should be developed.

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Figure Caption

Figure 1.

Percent of skill components performed correctly across eight skills and total over all skills, averaged across group members for the non-LD, LD, and JD groups. Standard deviations (!1) for each group are illustrated by narrow lines on each bar graph.

Figure 1

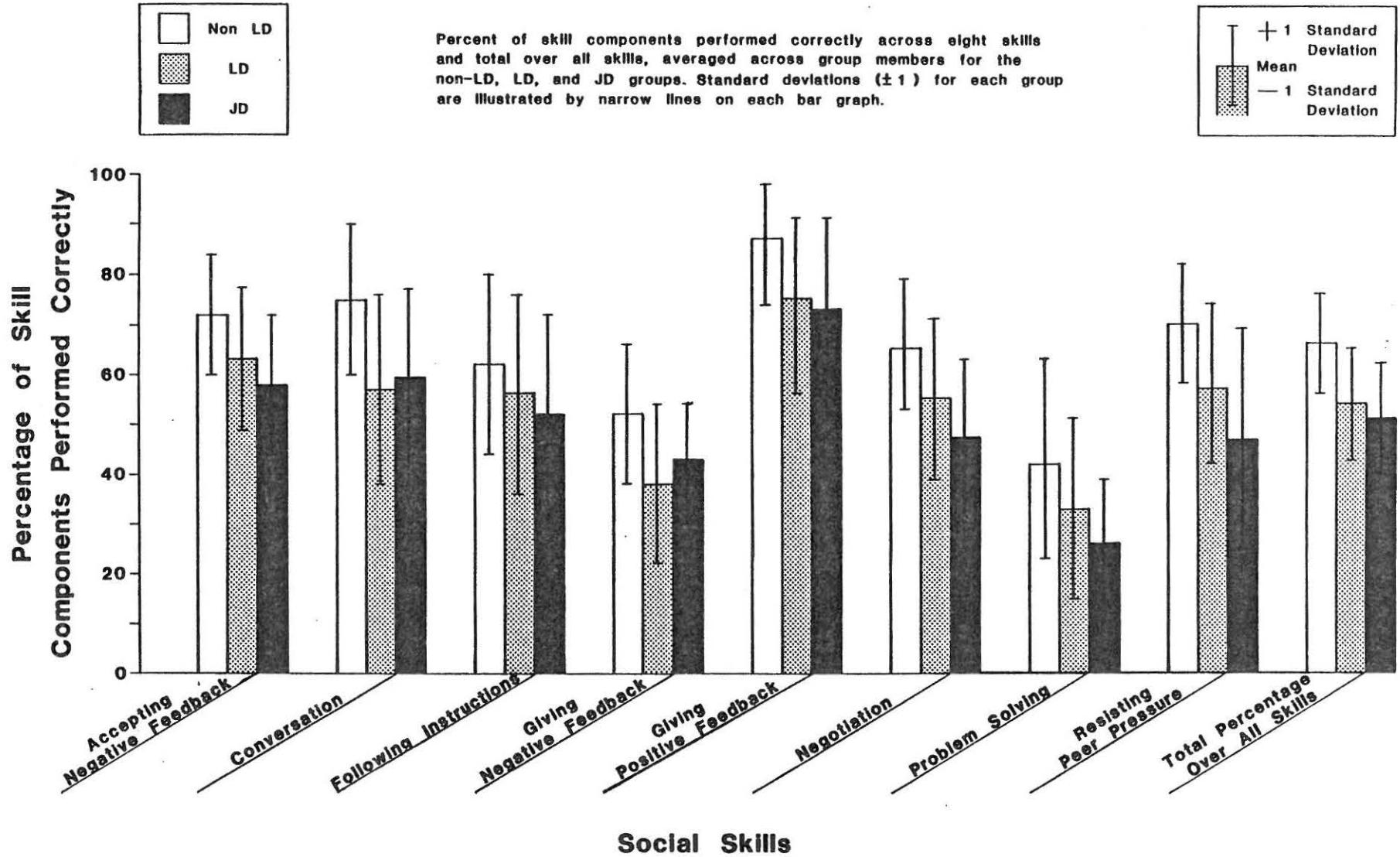


Table 1

**Summary of Analyses of
Variance and Paired-Comparison Results
Across Three Groups**

<u>Skills x Groups</u>	<u>Analyses of Variance</u>		<u>Neuman-Keuls Paired Comparisons</u>		
	<u>F</u>	<u>Non-LD vs. LD</u>	<u>Non-LD vs. JD</u>	<u>LD vs. JD</u>	
Accepting Negative Feedback ^a	17.01 ^{★★}	★	★		
Conversation ^a	16.28	★	★		
Following Instructions	3.00				
Giving Negative Feedback	14.40 ^{★★}	★	★		
Giving Positive Feedback	8.99 ^{★★}	★	★		
Negotiation	19.31 ^{★★}	★	★		
Problem Solving	13.17 ^{★★}	★	★		
Resisting Peer Pressure	25.81 ^{★★}	★	★		★
Total Skills ^a	40.17 ^{★★}	★	★		

Note. The degrees of freedom for each analysis were 2,144.

^aFemales were significantly better than males.

★ $p < .01$

★★ $p < .001$