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ABSTRACT

This study observed changes in patterns of friendship preference of three- and four-year-old children in mainstreamed preschool classes over the course of a school year. Sociometric assessments were obtained from the nonhandicapped children three times during the school year. At the beginning of the school year, three-year-old children did not use gender or disability in identifying the peers they liked to play with. The only statistically significant changes which occurred in the three-year-olds' sociometric ratings was a general decline in rating scores for all groups of children over the course of the school year. Four-year-old children preferred their same-sex and nonhandicapped peers as playmates in a relatively stable pattern throughout the school year. Children with disabilities and opposite-sex children received lower sociometric ratings in the four-year-old class in each assessment. A list of nine reference items is provided. (BC)

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Attitudes of Preschool Children Toward  
Their Peers in a Mainstreamed Class:  
A Year-long Investigation

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### **ABSTRACT**

Changes in patterns of friendship preference of three and four-year-old children were observed over the course of a school year. All of the children in this study participated in planned, fully mainstreamed same-age preschool classes. Sociometric assessments were obtained from all of the non-handicapped children in October, February and May of the school year. Four year old children preferred their same-sex peers and their non-handicapped peers as playmates. Children with disabilities and opposite-sex children received lower sociometric ratings in the four-year old class. A significant general decline in ratings score for all groups of children occurred in the three year olds' sociometric ratings over the course of the year. These findings are discussed in terms of their implications for integrated education programs.

### **INTRODUCTION**

The evolution of social interaction among children in group environments has been an important focus in early childhood research for many years. When expanded to include children with disabilities, studies typically find that mildly delayed preschoolers are more likely to participate in isolated play and less likely to be chosen as friends than their nonhandicapped peers (Guralnick & Groom, 1987; Guralnick, 1990). Esposito and Reed (1986) report, however, that elementary age children, who had had experience in a part-time mainstreamed class during their preschool years maintained significantly more positive attitudes toward children with disabilities than did children who had not participated in a mainstreamed group. They propose a "contact model" of attitude change (see also Esposito & Peach, 1983), where positive attitude changes are related to interaction and these favorable gains can be preserved over an extended period of time.

The majority of studies of friendships between preschool age children, with and without disabilities, have focussed on either playgroups that lasted for less than a full school year (see the studies of Guralnick and his colleagues) or on part-time mainstreamed experiences (cf. Esposito & Reed, 1986).

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**Purpose:** The purpose of the present study was to observe the changes in patterns of friendship preference of three and four-year-old children in a mainstreamed preschool program over the entire course of one school year.

#### **Questions/Hypotheses:**

1. Are there differences in acceptance (sociometric ratings) of handicapped and non-handicapped peers? Do these ratings change over the course of the school year?
2. Is there evidence of a systematic change in negative ratings over the course of the year?
3. Are there differences in non-handicapped children's recognition (knowing the names) of their handicapped and non-handicapped classmates?

#### **METHOD**

**Subjects** were 42 three and four year old children with and without disabilities enrolled in one of four integrated preschool classes. Each class included 4-5 children with mild-moderate handicaps (IQ range from less than 50 - 114, mean = 79.6) and 6 or 7 of their same-age non-handicapped peers. The children with disabilities had received diagnoses which included neurological disorders, Down syndrome, cerebral palsy, and developmental delay of unknown origin. (See Table 1).

**Setting:** All of the subjects were enrolled in half-day integrated preschool classes. Classroom staff included both an early childhood education teacher and an early childhood special education teacher who served as a consultant in the classroom. The classrooms were organized for child-initiated and directed activities, with individual goals embedded within these activities. Specific efforts were made by the teachers to include all children in small- and large-group activities. In addition, specific teaching about disability and diversity issues was included during the daily circle time.

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**Procedure:** The non-handicapped children were tested individually for their sociometric choices over a two week period at the beginning (October), middle (February) and end (May) of the school year. The sociometric procedure was adapted from Asher, Singleton, Tinsley, and Hymel (1979). In order to insure that the children understood the nature of a discrimination task, each child first rated five different food pictures (e.g. coke, broccoli) as "liked a lot", "liked a little" or "liked not at all". This rating task was completed twice; if the child gave the same rating to 4 of the 5 foods on both occasions, the experimenter proceeded with the sociometric ratings. All of the children without disabilities completed the food ratings successfully. Only two of the sixteen children with disabilities were able to complete the food discrimination task. As a consequence, data from the children with disabilities were not included in this analysis.

In order to be certain that the children recognized their classmates, they were first asked to identify, by name, a photograph of each child in their class. If they could not remember the child's name, they were asked if they saw the child in their class at school. Ratings were completed for each child whom the subject knew by name, or who was identified by the subject as a member of his class.

### RESULTS

1. Are there differences in acceptance (sociometric ratings) of handicapped and non-handicapped peers?

A 2 x 2 x 2 x 3 (AGE (3 or 4 year old class), DISABILITY, GENDER (same or opposite sex), TIME) ANOVA of sociometric rating score revealed significant main effects of age ( $F=3.9$ ,  $p=.055$ ), disability ( $F=28.48$ ,  $p<.001$ ), time ( $F=3.03$ ,  $p=.054$ ) and an age x disability interaction ( $F=10.04$ ,  $p=.003$ ). Because there were significant differences in the pattern of sociometric ratings for children in the 3 and 4 year old classes, an additional ANOVA was completed for each class. Results of the analysis of the 3 year old class revealed only a significant main effect of time ( $F=3.48$ ,  $p=.048$ ) (See Figure 1), with sociometric ratings for children with and without disabilities declining over time. In the four year old class, there were significant main effects of disability ( $F=33.74$ ,  $p<.001$ ) and gender ( $F=4.47$ ,  $p=.049$ ). (See Figure 2) These older children received higher sociometric ratings from same-sex peers. Non-

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handicapped peers received significantly higher ratings than their classmates with disabilities.

2. Is there evidence of a systematic change in negative ratings over the course of the year?

A 2 x 2 x 2 x 3 [AGE (3 or 4 year old class), DISABILITY, GENDER (same or opposite sex), TIME] ANOVA of the percentage of negative ratings (i.e. "not liked") given over the course of the school year revealed significant main effects of age ( $F=6.17$ ,  $p=.02$ ), disability ( $F=15.09$ ,  $p<.001$ ) and time ( $F=2.91$ ,  $p=.06$ ) and significant age x disability ( $F=4.78$ ,  $p=.03$ ) and age x time ( $F=2.96$ ,  $p=.06$ ) interactions. Additional ANOVAs completed for each class revealed a significant main effect of time ( $F=4.16$ ,  $p=.02$ ) in the three year old class, with the percentage of "not liked" or negative ratings increasing for all groups of children over the school year. (See Figure 3) In the four year old class, there were significant main effects of disability ( $F=18.12$ ,  $p<.001$ ) and gender ( $F=4.42$ ,  $p<.05$ ). For four year olds, the percentage of negative ratings increased over the school year for children with disabilities and for children of the opposite sex from the rater. (See Figure 4).

3. Are there differences in children's knowledge of their classmates names?

A 2 x 2 x 2 x 3 [AGE (3 or 4 year old class), DISABILITY, GENDER (same or opposite sex), TIME] ANOVA of the percentage of classmates named revealed significant main effects of class ( $F=8.1$ ,  $p=.007$ ), time ( $F=56.6$ ,  $p<.0001$ ) and gender ( $F=6.49$ ,  $p=.02$ ) and an interaction of time x disability ( $F=4.76$ ,  $p=.01$ ). (See Figures 5 and 6) Four year olds were more accurate than three year olds in their knowledge of their classmates' names; knowledge of names improved over time; children were more likely to know the names of same sex peers.

## **DISCUSSION**

Results of this study demonstrate changes in the variables affecting the choice of friends over the period from 3 - 5 years of age. Gender and disability status become increasingly important in the choice of preferred playmates. At the beginning of the school year in this study, three year old children seemed not to use either gender or disability in identifying the peers they liked to play with. The only statistically significant changes which occurred in the three year olds' sociometric ratings was a general decline in ratings score for all groups of children over the course of the year.

Four year olds showed clear evidence of making discriminations on the basis of gender and disability status. These children were significantly more likely to choose same-sex, non-disabled peers as their preferred friends. These findings are consistent with other studies of older elementary age children in which non-handicapped children were shown to reject their mainstreamed, mildly handicapped peers (Taylor, Asher & Williams, 1987) and to choose same-sex peers as preferred friends (Hayden-Thomson, Rubin and Hymel, 1987). For the four year old children, sociometric patterns were established early and remained relatively stable throughout the school year. This occurred in the face of explicit program efforts to encourage interaction with, and acceptance of, peers with disabilities.

It is also clear that, in this study, the non-handicapped children knew the names of many of their classmates, or learned their names over the course of the school year. In both the three- and four-year old classes, children were as likely to know the names of their peers with disabilities as their non-disabled peers.

These results suggest that four year old children use a "schema of normality" or similarity to self (Sigelman, Miller and Whitworth, 1986) in their selection of same-sex, non-handicapped peers as playmates. This is evident at the beginning of the school year, and does not change during the course of the school year. These findings are also consistent with prior evidence (Maccoby, 1988) of a clear tendency of children to segregate into same-sex groupings beginning at the preschool age. These patterns of friendship choice were not found at the beginning of the three year old year. Hayden-Thomson, et al. (1987) have reported that biases against cross-sex peers "persist with increasing fervor" throughout the elementary school years. (p. 561) They suggest that children are

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increasingly motivated to favor their same-sex peers as friends during the elementary years because "of the growing role of shared activities in children's lives and the cleavage between boys and girls that characterizes these activities". (p. 561) Likewise, the role of cooperation in play becomes increasingly salient for young children during the preschool years. It is possible that the limited ability of young, handicapped children to participate in fantasy and cooperative play activities makes them less attractive as play partners for older preschool children whose play is increasingly focussed on cooperative and pretend activities.

Although it is evident that daily interactions with classmates with disabilities, and consistent learning experiences about disability and diversity, had little effect on the friendship choices of four-year olds, the effect of such classroom activities on three-year olds is less clear. These data imply, however, that interventions designed to encourage interaction with, and positive attitudes toward, peers with disabilities may be most successful in children younger than four years of age and in children of the same sex as the disabled child.

### **REFERENCES**

Asher, S.; Singleton, L.; Tinsley, B.; & Hymel, S. (1979). A reliable sociometric measure for preschool children. Developmental Psychology, 15, 443-444.

Esposito, B. & Peach, W. (1983). Changing attitudes of preschool children toward handicapped persons. Exceptional Children, 49, 361-363.

Esposito, B. & Reed, T. (1986). The effects of contact with handicapped persons on young children's attitudes. Exceptional Children, 53, 224-229.

Guralnick, M. & Groom, J. (1987). The peer relations of mildly delayed and nonhandicapped preschool children in mainstreamed playgroups. Child Development, 58, 1556-1572.

Guralnick, M. (1990) Social competence and early intervention. Journal of Early Intervention, 14, 3-14

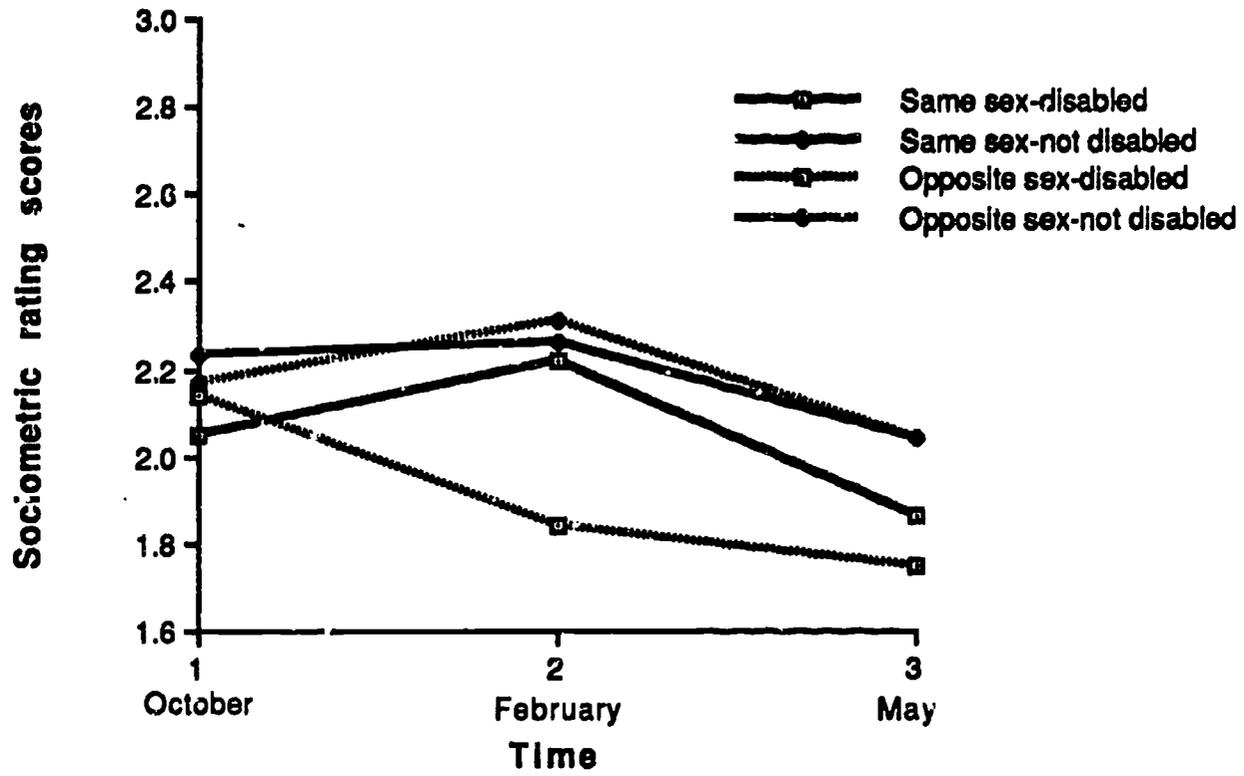
Hayden-Thomson, L.; Rubin, K. & Hymel, S. (1987) Sex preferences in sociometric choices. Developmental Psychology, 23, 553-562.

Maccoby, E. (1988). Gender as a social category. Developmental Psychology, 55, 755-765.

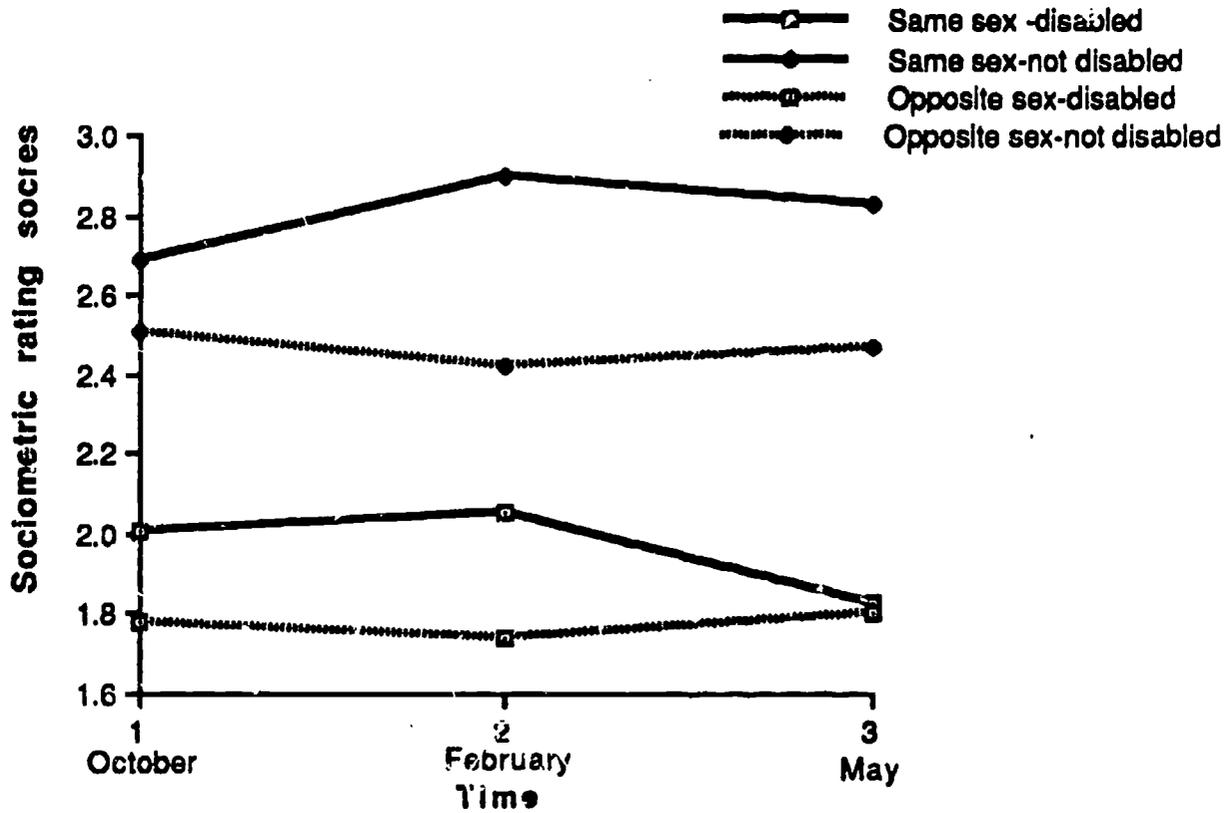
Sigelman, C.; Miller, T. & Whitworth, L. (1986) The early development of stigmatizing reactions to physical differences. Journal of Applied Developmental Psychology, 7, 17-32.

Taylor, A.; Asher, S. & Williams, G. (1987) The social adaptation of mainstreamed mildly retarded children. Child Development, 58, 1321-1334.

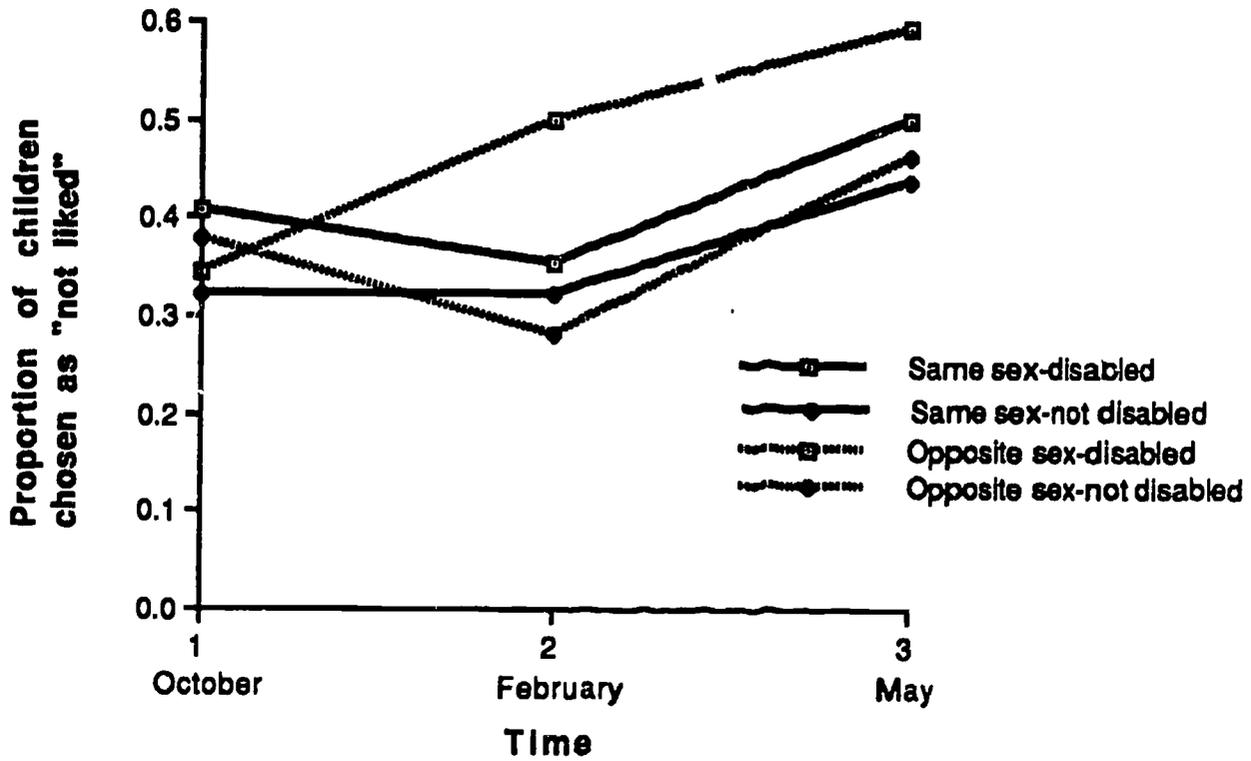
**Figure 1. Sociometric ratings-Three year old class.**



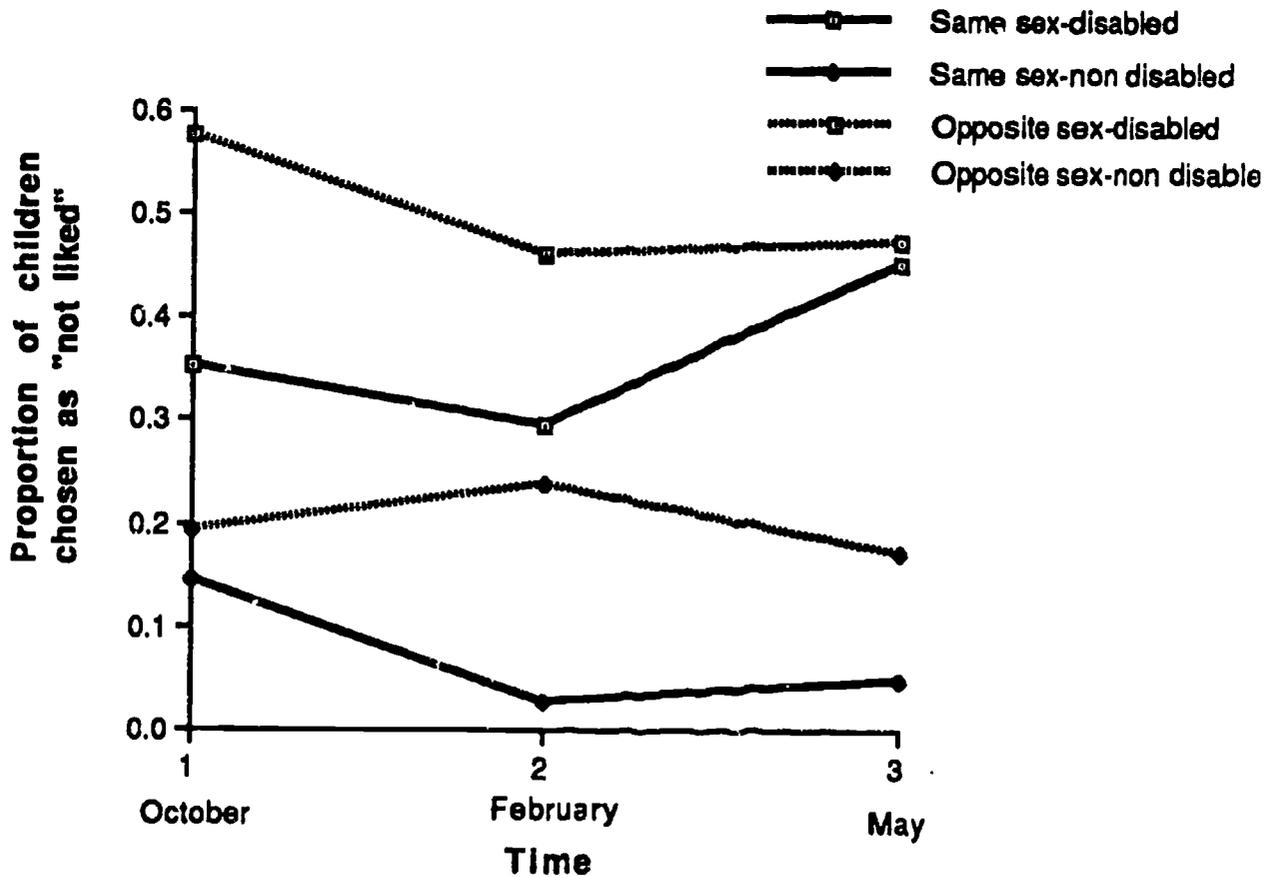
**Figure 2. Sociometric ratings -Four year old class.**



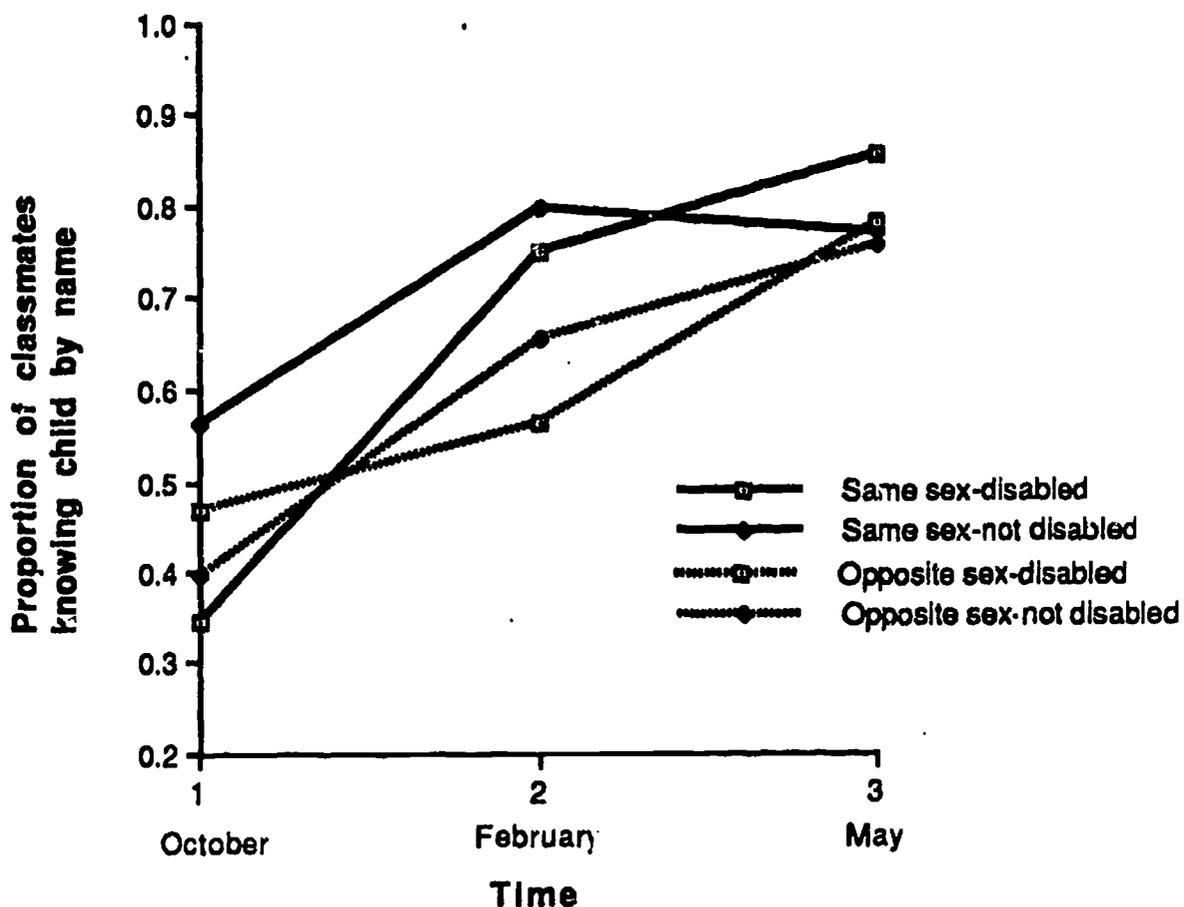
**Figure 3. Proportion of children chosen as "not liked" - three year old class**



**Figure 4. Proportion of children identified as "not liked" - four year old class.**



**Figure 5. Proportion of children knowing classmates' names - 3 year old class.**



**Figure 6. Proportion of children knowing classmates' names - 4 year old class.**

