The purpose of this study was to determine if prosocial development could be positively influenced through a classroom intervention strategy using selected children’s books and critical questioning techniques. In order to determine ability to share and to take different perspectives, 99 subjects from kindergarten and first grade classes were given a pretest in which they were asked to answer questions about pictures and stories depicting conflict. Treatments were then administered by specially trained teachers to 31 experimental and 33 control subjects who did not initially give sharing responses to the pretest tasks. In the experimental condition, nine readily accessible children’s books focusing on sharing, were read at a rate of three per week to the subjects. The feelings of story characters, the causes of characters’ feelings and behaviors, solutions to the conflict situations in the stories, and the role that sharing played in resolving the conflict were emphasized. Nine books not focusing on sharing were similarly read to the control group and the teacher simply discussed story events. Subjects were posttested with the same materials and questions used in the pretest. Results suggest that children’s prosocial development, with respect to sharing and perspective taking, can be facilitated through a classroom-oriented intervention technique. Experimental subjects gave more sharing responses and more appropriate explanations of the type of information they used to identify a character’s feelings (e.g., the character’s facial expressions and body gestures). (Author/RR)
Classroom Use of Selected Children's Books to Facilitate Prosocial Development in Young Children

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Abstract.

The purpose of this research was to investigate whether prosocial development could be positively influenced through a classroom intervention technique using selected children's books and critical questioning techniques. Sixty-four subjects (31 experimental, 33 control) from three schools were pre-tested and post-tested on tasks involving conflict-situation pictures. The intervention technique consisted of reading nine books focusing on sharing and asking perspective-taking questions. Results suggested that experimental subjects showed more movement: 1) toward sharing responses and 2) toward appropriate explanations of how they knew a character's feelings. This intervention technique is adaptable to other early childhood settings.
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Cognitive-developmental theory has recognized the significance of affective perspective-taking, role-taking, and empathy in the development of prosocial or altruistic behavior in young children. Altruistic behavior such as sharing, requires the ability to perceive and interpret a situation accurately, to understand feelings and emotions, to evaluate others' needs and to decide an appropriate action (Mussen & Eisenberg-Berg, 1977). According to Piaget (1926) this understanding of the feelings and emotions of others generally does not occur in young children before the period of concrete operations (approximately seven years of age). With increasing age, children become less egocentric and able to attend to a perspective other than their own.

Recent research has generally supported the cognitive-developmental view (Shantz, 1975). Several studies report that perspective-taking, role-taking, reasoning, and empathy, are positively related to altruistic behavior (Rubin & Schneider, 1973; Levine & Hoffman, 1975; Buckley, Siegel, & Ness, 1979; Marcus, Tellegen Roke; 1979).
Researchers do differ about the age at which affective perspective-taking can be attained. If the perspective-taking task requires merely the ability to discriminate and label emotions, then even very young children (3-4 years) can be successful (Borke, 1971). Successful performance on sequential decentration (the ability to consider two or more aspects of a situation, but one at a time) occurs between 5-7 years and simultaneous perspective-taking (the ability to consider more than one aspect of a situation all at the same time) between 8-9 years (Selman, 1971; Urberg & Docherty, 1976, Kurdek, 1977).

Research has also suggested that experiences with role-taking, affective perspective-taking, and empathy can be facilitative in the development of altruism. In one role-taking study by Iannotti (1978), the training of six and nine year old boys consisted of acting out the roles in simulated social-conflict situations. During the training, the experimenter directed the boys' attention to the motives, feelings and thoughts of the characters. As a result of the training, altruism in six year old boys was significantly greater than in the control group. In another intervention study (Staub, 1971), those
Kindergarten children trained in playing the roles of helper and of someone in distress, responded more frequently to the distress of another in need and shared significantly more than children who did not receive training. In a third study (Howard and Barnett, 1979), the generosity of five to seven year old children was enhanced by experiences which focused their attention on the feelings and needs of others. Thus, these studies suggest that it is possible to facilitate prosocial behavior through perspective-taking, role-taking and empathy training.

One problem encountered in the research on pro-social development and perspective-taking is the difficulty practitioners have in trying to apply the laboratory-developed techniques in non-research settings. Therefore, the purpose of this research was to investigate whether or not a classroom-oriented intervention technique could be utilized to effect a positive change in the prosocial development of young children (ages 5-7). The criteria used in designing the technique were:

a) easily learned by practitioners,

b) readily accessible materials,

c) appropriate for use in group settings, and

d) time-efficient.
The specific intervention technique in this study consisted of reading selected children's books and using planned critical thinking questions by kindergarten and first-grade classroom teachers during regularly scheduled story-telling times. All the books focused directed on an inter-personal conflict which was successfully resolved through sharing. The planned critical thinking questions throughout the story focused the children's attention upon: 1) the interpersonal conflict, 2) the feelings of each character, 3) the cause of the feelings, 4) the resolution of the conflict by sharing, and 5) the change in the feelings of the characters as a result of sharing. Following the reading of the story, the teachers emphasized the importance of sharing in resolving the story's interpersonal conflicts.

This training technique was chosen because it is directly applicable to classroom settings and its essential components were those which have been identified by prior research as significant for the development of altruism. These components are specified below:

1. The interesting stories and questions should direct the child's attention to the feelings and emotions of the characters and elicit empathy

2. The perspective-taking task should require sequential processing and should be within the developmental capabilities of 5 to 7 year old children. (Urberg and Docherty, 1975).

3. The questioning should encourage children to use hypothesis-testing and reasoning skills to solve a social conflict. (Rubin and Schneider, 1973).

4. The conflict resolution through sharing and the verbal reinforcement of this by the teacher should present an appropriate model of prosocial behavior to the children. (Bryan, 1975).

It was anticipated that through such a classroom training technique children's development of sharing could be positively influenced. Those children in the experimental group receiving training would show a change in performance from pre-testing to post-testing. This change was measured by analyzing the responses to three conflict-situation pictures and accompanying story dilemmas. Those children in the control group, receiving
parallel story experiences which did not focus on sharing, were not expected to show a pre-to post-test change.

Method

Subjects

Initially, 99 children in one kindergarten and five first-grade classrooms were pre-tested for base level of perspective-taking and sharing. These children were drawn from three inner-city schools located in a large metropolitan area. Those children scoring high on sharing (i.e. giving a sharing response as a first response to all three tasks) were not included in the study. Of the remaining 64 children, 33 were chosen as subjects for the control group and 31 for the experimental group. Subjects were 39 boys and 26 girls ranging in age from 5-2 yrs. to 7-5 yrs. with a mean of 6-7 yrs.

Procedure

Pre-and Post-Testing

The subjects in the experimental and control groups were pre-and post-tested by the researchers to determine the subjects' pre and post levels on sharing and perspective-taking. Testing of each subject was conducted in a room separate from the classroom and the order of the tasks was counter-balanced.
The three tasks involved the use of three different conflict-situation pictures (Pictures 1, 2, 3) with accompanying stories. Picture 1 and story concerned a conflict between an older brother and his baby brother. The picture showed an older brother who has taken a toy out of the baby's hands. Baby brother was crying.

Picture 2 and story concerned a conflict between a bigger boy and smaller boy playing ball in the playground. The picture depicted the bigger boy holding the ball out of reach of the smaller boy. Picture 3 and story involved a girl holding a double popsicle and noticing her friend looking at it.

For each task, subjects were shown the picture, told a story about the picture, and then asked the following questions:

1) How do you think (Potential Receiver*) feels?
2) Why does (Potential Receiver) feel that way?
3) How can you tell (Potential Receiver) feels that way?
4) How do you think (Potential Sharer**) feels?

*Potential Receiver: The character in the picture/story who could be the recipient of a sharing act.

**Potential Sharer: The character in the picture/story who could be the sharing agent.
5) Why does (Potential Sharer) feel that way?
6) How can you tell (Potential Sharer) feels that way?
7) What do you think will happen next?
8) What else could (Potential Sharer) have done?
9) What else could have (Potential Receiver) done?

Care was taken by the experimenters to describe all the situations in a neutral tone without suggestion of feelings or solutions.

Training

Three participating teachers were trained in the use of the intervention technique for the experimental group and in the parallel story experience for the control group. This training consisted of: listening to an audio-tape of a sample story; discussing story guidelines for each story; and identifying the parallel story experiences for the control group.

The intervention technique for the experimental group included:

1) Reading a total of nine selected books focusing on sharing over a three week period (three books per week).

2) Interrupting the story at pre-selected critical intervals to:
   a) label the feelings of story characters,
b) identify the causes for feelings and behaviors,
c) solve the conflict situation,
d) explain the successful resolution of the conflict.

3) Emphasizing—at the end of the story—the role that sharing played in resolving the conflict.

The parallel experiences for the control group included:

1) Reading nine stories which did not focus on sharing over a three week period (three books per week).

2) Interrupting the story to discuss the story events.

Materials

Nine, readily-accessible, children's books were selected by the researchers for the intervention. Criteria for selection were: age-appropriate; story characters with easily identifiable feelings; a clear statement of the conflict; and a successful resolution of the conflict through sharing. Titles of books used in the study appear in the Appendix. In addition, nine books not focusing on sharing were selected for the control group.
Results

Responses to Pictures 1, 2, and 3 were scored using the same taxonomy for each picture. Two scorers independently scored the protocols. The inter-rater agreement on the questions was 93%. Disagreements were resolved by consensus.

Chi square analysis of pre-test responses for each question suggested that there was not a significant relationship between group membership (experimental or control) and response. Therefore, the groups were essentially equivalent on the pre-test.

Post-test responses were also analyzed using the chi square technique. Analysis suggested no relationship between group and response for Picture 1. However, when the responses for Pictures 2 & 3 were combined for each question, some interesting results were obtained.

When asked to label the feelings of the characters in Pictures 2 & 3, and to identify causes for the feelings, no relationship between the group and response was found. Both the experimental and the control groups were competent in identifying the characters' feelings and the causes for these feelings. This finding of no relationship on the
post-test was not unexpected inasmuch as a high level of competency for both groups was demonstrated on the pre-test. Post-test performance change was limited by this ceiling effect.

Subjects were asked to identify the source of their information regarding the potential receivers' feelings and the potential sharers' feelings (How can you tell Potential Receiver or Potential Sharer felt that way?). Responses were categorized as appropriate or inappropriate references to facial expressions or bodily gestures. The analysis for the potential receiver question, suggested a significant relationship between group membership and response category ($\chi^2(1) = 5.337, p < .05$). In order to determine which of the cells was contributing significantly to this relationship, cell chi squares were converted into a standardized residual with an associated probability level. The standardized residual can be interpreted in a manner similar to a $z$-score with zero as the mean and a standard deviation of one (Everitt, 1977). An examination of the standardized residuals suggested that the experimental group (residual = 2.32, $p < .05$) was significantly more accurate than the control group in identifying their source of information. While 48% of the control group
correctly referred to the facial or bodily characteristics of the receiver, 71% of the experimental group correctly referred to facial characteristics.

Although not statistically significant, a similar trend was evident for the question regarding the source of information for the potential sharers' feelings. While 61% of the experimental group correctly referred to facial characteristics, only 48% of the control group correctly referred to facial characteristics.

Responses to the questions "What happened next?" and "What could have happened next?" were categorized as a sharing response, an aggressive response or other (avoidance of problem, don't know response). The chi squares were not statistically significant for either question. It is interesting to note, however, some differences between the groups. When responses for Pictures 2 & 3 were combined, 50% of the experimental group gave a sharing response to the "What happened next?" question. Only 39% of the control group responded similarly. For the "What could of happened next?" question, an equivalent percentage (38%) in each group gave a sharing response. This finding does not however, represent an equivalent change from pre-test to post-test.
While 17% of the experimental group gave a sharing response on the pre-test, 25% of the control group gave a sharing response. Thus, the experimental group showed a 21% increase from pre-test to post-test; the control group showed only a 13% pre-test to post-test increase.

Discussion

The results of this study suggested that children's prosocial development can be facilitated through a classroom-oriented intervention technique. Although not dramatic, changes were evident in children's sharing as a result of the teacher reading selected children's books focusing on sharing and asking critical thinking questions. This was evident on the post-test since more children in the experimental group than in the control group suggested sharing as a solution to interpersonal conflicts.

As anticipated, given previous research (Urberg & Selman, 1971; Docherty, 1975; Kurdek, 1977), these results also suggested that children between the ages of 5-7 years were very competent at labeling the feelings of others and citing the cause of these feelings. Subjects experienced more difficulty in identifying the source of their information regarding the feelings of others, specifically facial expressions and bodily gestures. The intervention
The experimental group in responding to the question "How can you tell _____ feels that way?" showed a significant change on the post-test by responding appropriately i.e. referring to facial characteristics and bodily gestures as the source of their information. This seems quite reasonable given the training technique used. The critical questions designed for use with the books at pre-selected intervals in the story allowed for such development. Given the age of the subjects and their transitional phase of development with respect to the identification of facial clues as a source of information about feelings (Shantz, 1975), it was not surprising that responses were qualitatively better following training.

Changes on the post-test were most evident for Pictures 2 & 3. Possibly Pictures 2 & 3 resulted in the most change because of greater relevance and identification with the conflict and characters in the picture/story situations. Pictures 2 and 3 involved characters of similar age and race to the subjects in age-appropriate conflicts. Picture 1 did not possess these characteristics to the same degree.
There were specific limitations to the study. Dealing with changes in social cognition in young children in a short period of time is, at best, difficult. Clearly, the topic is worthy of longer study, given the amount of success realized in this three-week period.

Another limitation of the study was the dependence in the training technique on books and critical questions alone. An expansion of the ideas encountered in the books into other activities e.g. role-playing, socio-drama, language-experience stories, etc. would have enhanced the processing of relevant information. The effectiveness of involving subjects actively in role-taking situations has been supported by other research studies (Iannotti, 1978; Howard and Barnett, 1979; Staub, 1971).

One of the purposes of this study was to design a practical, effective, classroom-oriented technique useful in promoting prosocial development in young children. To that end, the objectives were met. Classroom teachers found that the technique in using the books and questions was easily learned, that materials needed were very accessible; and that the technique could be easily incorporated into their daily routines in a very time-efficient way. Given these results, it appears that this
plan could be easily applied to other classrooms and non-research settings.
References

Borke, H. Interpersonal perception of young children; egocentrism or empathy. Developmental Psychology, 191, 5, 263-269.


Appendix

BOOKS USED IN STUDY


