Training in Interpersonal Cognitive Problem Solving (ICPS) can be a means of promoting social competence and adjustment. Empirical findings suggest that the process of being able to consider multiple options for solutions of interpersonal problems is important for healthy adaptive functioning, even in children as young as 4 years of age. If one can or does consider only one or two solutions to a problem, no matter how good those solutions may be, the chance of his succeeding at solving the problem may be less than if he has a repertoire of solutions available to try again. Problem solving dialoguing, an ICPS skill, appears to be an important element in producing positive behavior change. The goal of dialoguing is to help children recognize a problem, consider what might have led up to it, and evaluate options and consequences. Formal dialoguing training closely simulates the use of dialoguing in real life situations. This may explain its effectiveness as a training technique. ICPS has the potential to reduce or prevent maladaptation in a variety of populations. It has been used with retarded children, hyperactive youngsters, adult alcoholics, and short-term inpatients and is currently being tested with drug abusers, child abusers, depressed university students and pregnant teenagers. *(JMB)*
Promoting Social Competence: A Cognitive Strategy

Myrna B. Shure, Ph.D.
Hahnemann Community Mental Health/Mental Retardation Center


Research funded by Applied Research Branch, National Institute of Mental Health--Four- and five-year-olds (grant #20372); Ten-year-olds (grant #27741).
Today I'm going to reflect a bit—about what George Spivack and I call ICPS—Interpersonal Cognitive Problem Solving, how we interpret it, what its "problems" are (pardon the pun) in implementing its intervention, and about more widespread potential for this cognitive approach to adjustment. In doing this, I'll talk about our earlier work with 4- and 5-year-olds, and our present studies of inner-city fifth-grade children.

My first reflection is about an ICPS skill we call alternative solution thinking, and its relation to social adjustment. Our empirical findings (Spivack & Shure, 1974; Spivack, Platt & Shure, 1976; Shure & Spivack, 1978) suggest that it is the process of being able to consider multiple options to interpersonal problems that is important to healthy adaptive functioning, even in children as early as four years of age. All children, including the best adjusted can think of forceful ways to obtain a toy from a peer, and almost all not only offer solutions as "hit him" or "grab the toy," but may, on occasion, carry such acts out. The difference is that adjusted children can also think of more nonforceful ways to obtain a toy, such as "Trade his truck," "Be his friend," or, perhaps, more imaginatively, "Say, put his name on it and he'll think it's his."

This is not to say that we are measuring social adjustment by what a child says can be done, when asked about it in an isolated test situation. We all know that what a child does and what he says may not always be one and the same. What we are measuring is a...
general style of thought vs. an overall pattern of behavior.

Examining the properties of the behaviors this skill relates to may help us understand why ability to generate multiple options is associated with healthy social adjustment. If one can, or does consider only one or two solutions to a problem, no matter how "good" those solutions may be, the chance of his succeeding may be less than that of someone who does not give up too soon, and has the repertoire of solutions available to try again. If available solutions should fail, and if such failure occurs often enough, it seems reasonable to believe that feelings of frustration could lead to impulsive grabbing, hitting, nagging, overemotion, or other annoying behaviors--behaviors which in turn, can only cause new problems (another's anger, getting hit back)--problems poor problem solvers cannot deal with either. Or, if continued failure doesn't lead to impulsivity, it could lead to the opposite reaction--to withdraw from people and from problems that they can't solve.

This process theory is borne out by many inhibited children, especially in a middle class sample of four-year-olds we once tested, who repeatedly offered "say please" as a way to obtain every toy presented in our test situation. While the content of this solution may differ from that of a child who offers only "hit him" or "grab it" as a way to obtain the toy, both children would likely display more maladaptive behaviors than those who can and do consider other ways (regardless of social class).

Our correlational research and 4- and 5-year-olds has also shown that poor problem solvers (low solution scorers) are not only less likely to consider the effects of their actions on others (consequential thinking), but they probably do not recognize the prior events
that led up to the present problem (causal thinking), or even the real problem that exists.

Our next step was to test George Spivack's theory, developed from his clinical experiences and research with adolescents. He proposed that regardless of IQ, a significant determinant of the quality of social relationships is a set of mediating cognitive processes that define abilities to solve interpersonal problems.

Would availability of identified ICPS skills be an antecedent condition of social adjustment in children as young as four and five years of age?

To find out, we trained teachers and parents to help children learn ICPS skills and how to use them when real problems came up. Not only did all trained groups gain more than comparable controls, but whether learned at school or at home, children who most improved in the trained ICPS skills (especially solution thinking) also most improved in behavior. This linkage supports Spivack's theory because rather than directly modifying behavior itself, we concentrated on the child's problem solving style of thinking.

This brings me to my second reflection. What is it about the training that produced ICPS and behavior change? We believe that children could learn and generalize their newly acquired skills because of the approach we took. Instead of teaching adult-valued "good" ways to solve problems (remember, adjusted kids could think of force too), we helped children think about what they do, and then to discover more than one way. Our goal was not to solve the problem "now" because we felt it more important to help the child recognize the problem, what might have led up to it, and to consider options and consequences. Encouraging children to think like this
would, in our view, add to their understanding of what they do in interpersonal situations. If, for example, a child hit another or grabbed a toy, he was asked what happened, what the other child did or said, and whether or not his action was a good idea. Based on what he'd say, the child might be reminded that (grabbing) is one thing he could do and then be asked if he can think of a different way. In the same vein, he was also asked for different ideas when nonforceful responses, as "ask" were given. If our process theory of problem solving is correct, the child's social adjustment and interpersonal competence is guided more by how he thinks than by what he thinks.

Guiding children this way was not just to help children get what they want. This technique, which we call "problem solving dialoguing" also helps them cope with frustration when they cannot have their wish. One child asked his teacher to go outside, at what the child knew was an inconvenient time. When asked if he could think of something he could do inside for now, he thought for a moment, then said: "I'll build a tower." Had the teacher suggested he build a tower, the child would no doubt have said "I don't want to build a tower, I want to go outside." A child is much more likely to carry out his idea than one suggested or demanded by an adult, making the otherwise inevitable power play unnecessary. Children encouraged to think this way are not only less nagging and demanding of adults, but adults become less nagging and demanding on them.

One four year old girl, standing in front of a slide with her back turned from it, illustrates what else can happen when children are "told" what to do. The girl was accidentally bumped on the
shoulder by an oncoming child. Without hesitation, she turned around and hit that child. When asked why she did that, her reply was "My mommy told me to hit." Remembering what her mother told her (the circumstances of which were no doubt misunderstood) this girl did not find out what happened nor did she consider other ways to deal with it. She just impulsively did what she (thought) she was supposed to do. Any consideration of why she was "hit" or that her action might create a new problem was either absent, or irrelevant to her.

When we interviewed inner-city mothers, we learned that many indeed, told their children to hit back, when hit. And if the child suggested he would be afraid to do that, many mothers came back with "You have to learn to defend yourself." Now the child does not have to think about what to do, only worry now about how to do it (or keep his mother from learning that he hadn't).

In teaching problem solving skills, teachers and parents added problem solving dialogues to a daily 20-minute three month formal program script. Just as Irv Sigel (see Roeper & Sigel, 1967) could successfully train 4-year-olds to conserve by first teaching them its individual components (such as demonstrations of reversibility), we included in our formal lessons concepts we judged prerequisite to the final problem solving skills to be learned. These concepts included recognition and appreciation of people's feelings (happy-sad-mad), why a problem may have occurred, and attention to the interpersonal nature of the problem. We reasoned that these abilities would widen a child's repertoire of solutions, and give them heightened sensitivity when evaluating them.

We believe our follow-up results (Shure & Spivack, 1979) were
also accounted for by our use of a process-not-content approach. Not only did ICPS and behavior change of trained youngsters remain significantly ahead of controls a full year later, but particularly inspiring for primary prevention--trained children who did not show behavior problems in nursery were significantly less likely than similar controls to begin showing them in kindergarten.

In support of the ICPS approach, Roceliá Allen (1978) found greater improvement in ICPS and in impulsivity and inhibition in lower class trained than control children. In the middle class, Nancy Wowkanech (personal communication) found out something important about ICPS flexibility. She trained two groups of 4-year-olds. One group received our complete ICPS-program and in the other, teachers suggested solutions, modeled how to carry them out, and explained why a particular solution was a good one. Observed by independent raters, it turned out that in actual conflict situations, ICPS-trained children spontaneously generated their own solutions, and turned to a different one if the conflict was not successfully resolved. In contrast, tactics of the modeling group more often included those previously used, which often included hitting, grabbing and the like. In handling conflict, the important issue is that these children less often tried more than one way to deal with it.

In addition to the formal program script, both these studies employed problem solving dialogues when problems actually happened, a technique which is beginning to appear crucial for affecting behavior change.

Reflection #3. Why may this be so? In addition to guiding a problem solving style, "dialoguing" maintains a consistency from the formal lessons to real life events. Thus, the trainers would
not undo what they've just done—let children think through a problem we'd make up, and then tell them what to do when they're really having one (Shure, in press). Perhaps applying these skills to real problems help account for school behavioral improvement of those trained at home, as rated by teachers in school who were completely unaware of the program, its techniques or its goals (see also Spivack & Shure, 1974; Shure & Spivack, 1978).

Turning to our work with inner-city fifth-graders, we have just learned something important about behavior. Examining behavior judgments of teachers and peers, girls, for example, who are not shy and frightened are likely to also be perceived as concerned for others, a good leader and liked by their peers. For boys, not being shy may or may not be associated with these prosocial behaviors. Perhaps not being shy is no big deal. When they are, it may be particularly counterculture, and maladaptive. As with younger children, the inhibited are the most ICPS-deficient. In our present group, there are occasional ICPS sex differences, and where these occur, inhibited boys generally fare the poorest of all. We also learned that girls seen by peers as bossy are also likely to be perceived as angry, but this was not true of boys. With factor analyses showing some behaviors loading differently, it may be that at least in inner-city fifth-graders, we need to examine whether interpersonal thinking skills are associated with different indices of social adjustment and interpersonal competence in boys than in girls.

If identifying specific behaviors which distinguish ICPS-deficient from ICPS-efficient fifth-graders is more complicated than in younger children, so too are some aspects of training them.
Again, we took the prerequisite route to problem solving, and preceded more sophisticated concepts about people's feelings with the simple word "happy." We decided that although "happy" may seem to be a "four-year-old" word, it is not a "four-year-old" feeling. And the ten-year-olds confirmed this by their enthusiastic response to talking about this word, an enthusiasm they displayed throughout the entire program script (in preparation). The difficulties lie not in the formal lessons, but more in incorporating informal dialogues when real problems arise, an element of training that, as I've suggested, is crucial.

One reason informal dialogues were more limited is because the bulk of it took place within the classroom—the classroom teachers were seldom outside on the playground with the children at recess. Because of this, they were not likely to dialogue directly with those involved in the conflict. When dialogues did occur in the classroom, either over problems which happened earlier (in the lunchroom, the gym, at recess), teachers involved the whole class because with curriculum demands, time to talk with individual children was more restricted (unless they were being kept in for recess or after school, usually for misbehavior). The whole-group technique can be very effective, except that it doesn't give the kids who had the problem a chance to put their ideas into effect. Thus, dialogues were often in the form of group discussions (more like the format of some of the formal lessons). One way to overcome the large group obstacle is, at the suggestion of one of our more creative teachers, to have children role-play (act out) actual problems, and if they happened in the classroom, to do it as soon after it occurred as possible. Since role-playing was part of the
formal script for contrived problems, the children were able to do this, and often quite successfully.

For these teachers, we noticed that it took much more training for them to focus on interpersonal conflicts as problems to be solved, rather than simply as annoyances or disturbances to be dealt with quickly and be rid of. Perhaps teachers of younger children are, from the start, more oriented toward helping children adapt behaviorally to school, whereas teachers of older children are more oriented toward curriculum. As one fifth-grade teacher told me, "Before training, when minor problems came up, I just gave them the 'eye', they knew what it meant, and they sat down and forgot about it. Now I ask them to think of a way to solve it, and they usually can." This is not to say that a big thing should be made of every little problem. But as another teacher said, "I learned that what might seem little to me is not always little to the child." In time, most of our teachers did learn to dialogue, and to take advantage of opportunities available to talk with specific children (such as at indoor recess, necessitated by rain).

While our results for this age group are not yet in, Phyllis Elardo and Bettye Caldwell (1979) found that training these skills can improve school behaviors in 4th- and 5th-graders. In addition to a formal training program (Elardo & Cooper, 1977), both the principal and faculty consistently applied informal dialogues for real problems (suggesting the value of creating a total problem solving atmosphere within the school setting). Although Ellis Gesten reported only some immediate behavior change today (see Weissberg, et. al., 1979), Gesten informed me that a year later, children trained in the Rochester project were less likely than
controls to show further behavior problems, a finding which has special significance for primary prevention. If, to now, potential benefits of ICPS training for older children have been outweighed by the challenges of conducting that training, these investigators inspire optimism that this trend may soon be reversed. And in yesterday's APA conversation hour, the research of Steve Larcen, Jeff Bensky and Maurice Elias has revealed that while there is need to further refine ICPS and behavior measures in different age groups, ICPS is an extremely promising approach for handling and preventing behavior problems, and for promoting prosocial competence (see Larcen [in Allen, et. al., 1976; Bensky, 1978; Elias, 1978; Elias, et. al., 1978]).

This leads me to my final reflection—what the more widespread potential for ICPS is. Besides the feeling that everyone, including young children like to think for themselves if they have the skills to do so, it has potential to reduce and prevent maladaptation in a wide variety of populations. ICPS programs and techniques have been used with varying degrees of success with educable-retarded (Healey, 1977) and hyperactive youngsters (Camp & Bash, 1978), with young adult alcoholics (Intagliatta, 1978), and short-term inpatients (Coché, 1976). ICPS experiments are presently being conducted by Jerome Platt, Jonathan Morell and Eugenie Flaherty for drug abusers and by Ann Nesbitt for parents who abuse their children (both in progress). Gotlib and Asarnow (in press) have found ability to plan means toward a goal (a skill we call means-ends thinking) to be deficient in mildly and clinically depressed university students, as has Barbara Steinlauf (1979) in pregnant teen-agers, results which suggest training implications for these populations as well.
Getting to the heart of what all this is about—perhaps one of our ten-year-olds put it best: "We're getting big now; people won't always be around to help us." What—can I add to that?
References


Gesten, E. Personal communication, August, 1979.


Wowkanech, N. Personal communication, August 1978.