This paper describes the efforts of the author and others to develop and field-test a kit of materials and activities which an elementary school faculty might use to improve problem solving in its school and classrooms. The development of the "Problem Solving School" or "PSS" program handbook at the Institute for the Development of Educational Activities (IDEA) is discussed. The program takes 20-30 hours of faculty time and is oriented toward problem solving in the classroom and in the school as a whole. Several schools accepted the program on an experimental basis; the experiences of four such schools are discussed. Indigenous leadership of the training activities is basic, and little reliance is placed on outside consultant skills because the latter is so difficult to find and may encourage dependence. A bibliography of survey articles comparing alternative approaches to organizational change is presented. (KS)
I've been working at IDEA for about two years now to help develop and field test a sort of "do-it-yourself" kit of materials and activities which an elementary school faculty can use to improve its school and classroom problem solving. We call our product the "Problem Solving School" or "PSS" program. The program takes from twenty to thirty hours of faculty time over the course of a school year. About half of this time is oriented toward problem solving in the classroom, and the other half is oriented toward solving common problems which affect the school as a whole.

Classroom level activities include 1) a series of short programmed instruction booklets which deal with different steps and strategies for classroom problem solving, 2) scheduled classroom practice in applying these steps and strategies, and 3) small discussion groups among teachers who are working on the same booklets. School level activities include 1) three one-hour "team building" activities for the whole faculty, 2) a sequence of five one-hour "problem-solving" meetings, in which the faculty identifies a school problem, finds some solutions to it, and evaluates its problem solving process, and finally 3) a second cycle of problem-solving meetings on a new problem.

The bulk of responsibility for coordinating these various school and classroom level activities in the individual school falls on what we call a "Development Team" (D-team) of three teachers who are nominated by their peers and selected by the principal.

The D-team is guided in its work by a handbook which contains specific and detailed guidelines for conducting each activity, but the job is still a challenging one which requires initiative, intelligence, and skill. I'll have more to say later about the Development Team and its very important role in the PSS program.

In our first year of developing these materials, we found twelve schools which were willing to participate in our program. We divided these schools into three groups, which were to begin participation in October, December, and February, so that we would be able to test and revise the materials three times that first year. As you might guess, our three-stage test and revision plan didn't work out quite as well as we had hoped, but we did get a full three revisions on the school level "team building" activities, and one complete revision of the remaining materials in the program.

We began the 1971-72 school year with a substantially revised (and we believe much improved) PSS program. Three of our schools from the previous spring decided to continue in the program for another school year, and we also recruited three new schools to the program. These six schools are all currently active in the fourth version PSS program, and it is our experience with these six schools that forms the basis of our knowledge about the advantages and limitations of "the product as change agent."

We are still in the formative stage of our product development, and we don't yet have conclusive evidence that participation in the PSS program will predictably lead to new and higher levels of school and classroom problem solving. But the data we have collected so far, from interviews, direct observation of meetings, and written reactions to our materials, do begin to give us an idea of the potential of this kind of program for facilitating change in the individual school. What I'd like to do, since the time is so short is to begin with my overall conclusions, and then fill in as many supporting arguments as the time will allow.
First, I think that some of the biggest limitations which the PSS program faces are limitations which are common to all "educational" O. D. interventions into public schools. Second, whether a product can ultimately be as effective as a live consultant or trainer in facilitating organizational change is essentially an empirical question which can only be answered by developing and studying the outcomes of programs such as the PSS program. Certainly the "trained consultant" approach to school organizational development has such supply and cost problems that alternatives to it need to be explored. Third and finally, our present product as change agent appears to provide a small push in the right direction, and I suggest that it is likely to be a worthwhile program if used in conjunction with other forces for change.

Let me go back now to the first of these points. I think that the single greatest limitation on the effectiveness of the PSS program is that the program depends on a certain amount of discomfort with the status quo within the client system. We found that faculties which started the program with a pretty high opinion of themselves, or with feelings of complacency about their own problem solving, are the schools which seem to have benefitted least from the program. Conversely, those faculties which, when they started, were suffering from obvious internal strains are the ones which have made the most profitable use of the program. This same finding has been reported for other types of O. D. programs in other settings. For example, Greiner (1967), in a review of eighteen large-scale organizational change programs, found that those organization which were "hurting" the most initially (either from environmental pressures or internal strains) were the ones in which the most significant changes occurred.

A second fundamental limitation of the PSS program is simply its shortness, which has been dictated in large part by teachers' understandable reluctance to undertake change efforts on their own time. Twenty or thirty hours of in-service training activity of any
kind can hardly be expected, by itself, to bring about a revolution in faculty effectiveness. We have observed some positive changes in the way our participating schools go about their problem solving, but these changes have been incremental rather than monumental.

There is, of course, plenty of room for change and improvement in the program itself. The next revision will be improved in a great number of small ways, but we don't have the time or manpower at present to develop it in any major new directions. One noteworthy limitation of the present program is that it has been designed for the common but (I believe) obsolescent elementary school structure which consists of a principal and twenty or thirty basically undifferentiated teachers in self-contained classrooms. In such a structure, full faculty meetings are a strategic locus for concerted faculty problem solving. But schools with a more differentiated structure (e.g., teams, pods, or semi-autonomous schools within the school) are more likely to de-emphasize full faculty meetings as a locus for group problem solving, and their smaller group meetings tend to have somewhat different dynamic problems.

One of the central characteristics of the present PSS program remains to be discussed: its design for indigenous leadership of the training activities and its very limited reliance on outside consultant skills. Our experience in relying on indigenous leadership to maintain the structure of the program has basically been a rewarding one. Over and over again, observers have been impressed with the competence and care that D-team leaders have demonstrated in conducting PSS activities. Of course there have been some variations in the quality of D-team leadership, but in only one school out of six this year has the D-team been so incapable as to endanger the program.

The PSS program has been designed to work without many of the things a well trained consultant can provide. A live consultant can tailor a training program to his clients' special needs. He can intervene flexibly in the social process in a way which facilitates
change while helping to maintain social equilibrium. He can "model" the kind of problem solving behavior he wishes his clients to learn. He can serve as an encyclopedia of fresh concepts and ideas. And he can help to supply the confidence which maintains the client system's momentum.

But the well-trained outside consultant is not easy to come by. He is expensive and in short supply. And the more available, less experienced consultant may make mistakes which can hurt the client system's development. For example, he may let his enthusiasm for change push the client a little too far, too fast. Or he may encourage dependence on himself by playing a too prominent role. Or he may let his own enjoyment of "process" interfere with his clients' needs for task accomplishment. Or he may find it hard to be patient with the resistances of his clients. In short, social consultancy has its pitfalls as well as its promise.

In the PSS program, ID|E|A observers have occasionally fulfilled consultant functions: providing an occasional conceptual input or bit of procedural advice, and sometimes influencing the direction of discussion with a timely comment or question. So we do not claim that the PSS program has been entirely consultant free. But the primary function of visiting ID|E|A staff members has always been to observe, and we stay out of the process most of the time. The D-team typically does not ask for help in running the activities.

We are not always ecstatic about the process conclusions reached by faculties in our participating schools, but we generally try to let them find their own version of the truth. It may not be the most sophisticated analysis in the world, but they are definitely discussing their own problem-solving processes and consciously trying to improve them. Research data are not available to test this hypothesis, but I will guess that self-directed faculties such as these progress more slowly than they would if assisted by frequent consultant
inputs, but that they do not regress so much after the intervention ends.

Many issues and tentative hypotheses have necessarily been omitted in a talk this short. The appendices which follow contain several orienting references, and also some thumbnail sketches of four schools' experiences with the PSS program. I will welcome a dialogue on any aspect of what I have said, implied, or omitted here.
APPENDIX ONE: SURVEY ARTICLES COMPARING ALTERNATIVE APPROACHES TO ORGANIZATIONAL CHANGE.

The following list is far from complete, but at least offers the reader a variety of perspectives. I have ordered the articles according to my own liking for them (best listed first), based on criteria of accuracy, completeness, and internal consistency.


A survey of eighteen organizational change studies, arrayed on a "power distribution" continuum from "unilateral action" through "sharing of power" to "delegated authority." Eleven cases were considered successful, and seven unsuccessful. Successful cases were characterized by power sharing approaches to change. (10 pages)


Examines ten case studies of organization development which "provided sufficient information to indicate the outcome of the undertaking." Seven of these cases were considered successful, and three unsuccessful. The cases are analyzed in terms of their different methods and common elements. (17 pages)


A discussion of seven major approaches to organizational change. Uneven coverage: sometimes detailed, sometimes cursory. Discussion of the work of E. Jaques seems quite distorted. (62 pages)


Subdivides change approaches into three types, which are differentiated from one another in (a) points of entry, (b) relative weightings, and (c) underlying values, "not in the exclusion of all other variables." Observes that "people" or "power equalization" approaches predominate in the literature. Basically sympathetic to the "people" approaches. (24 pages)
APPENDIX TWO

FOUR SCHOOLS' EXPERIENCES WITH THE

"PROBLEM SOLVING SCHOOL" PROGRAM
1. **SUNSET SCHOOL**

Sunset School is a medium sized K-6 school (about 650 children, 20 adults) in a large urban district. The school's community is predominantly white and middle or lower middle class. I contacted the principal of Sunset School by mail in September, 1970 regarding participation in the Problem Solving School (PSS) program. She was interested, and a poll of the faculty indicated that a majority were "interested." The faculty filled out a series of pretest questionnaires in October, 1970, and program activities began the following February (using third revision materials).

The first two school-level activities went well procedurally. The faculty's response varied from enthusiastic to "obedient." But observers began to notice communication problems between the principal and her staff in and following the second meeting, which came very much out into the open as Activity Three was about to begin. The principal opened the meeting by announcing that some people had complained of the time involved working with the materials, and that those who wished could withdraw from the program. She expected to proceed immediately after this announcement with the scheduled activity—but her staff had other ideas. One of the D-team leaders had prepared a newsprint chart itemizing faculty complaints about the program, and wanted to pin it up and discuss it. The principal tried several times to stop this from happening, but the observer who was present encouraged the group to use this meeting time to discuss their feelings about the materials.

Many issues were discussed, the chief ones being that the teachers felt they had been committed to the program knowing what they were getting into and that some form of reimbursement or in-service credit should be given them for participating. The meeting ended, after nearly an hour of discussion, with an agreement that would
send the school more information about the rest of the program, so that they could make a decision about what to do. They decided, the following week, to complete Activity Three that spring, and to continue the program in the fall, on the condition that in-service credit would be available for their participation.

The incumbent principal at Sunset School began a year's sabbatical in the summer of 1971, and was replaced for the 1971-72 school year by a new male principal, who agreed to let the faculty continue "their" program on a voluntary basis. In-service credit for participation was made available in the fall of 1971, and about two-thirds of the faculty elected to continue in the program.

Through the fall and winter of this year, Sunset has been working through the PSS program at a leisurely but steady pace. Leadership of PSS meetings has been broadened to include several non-D-team members. The faculty chose a "playground" school level problem and have worked out a comprehensive set of steps to improve the situation. They plan an "outcome" evaluation in May, but have already carried out a "process" evaluation of their own problem solving efforts. They have worked out a set of written meeting guidelines ("Sunset" Rules of Order) which they plan to use in their own faculty meetings as well as their next PSS problem solving cycle.

Observers now regularly comment on the friendly atmosphere and efficiency of meetings held at Sunset School. The faculty is working out a modus operandi of its own for effective faculty meetings, characterized by wide participation and a distributed pattern of group leadership. The new principal clearly supports this growing faculty self-reliance and has recently been asked by the district to continue as the permanent principal at Sunset School.
2. NORTH SCHOOL

North School is a rather large K-6 school (about 900 children, 60 adults) in a large urban district. The school's community is virtually 100 percent black, with a low enough socio-economic level to qualify the school for Title I funding. The school staff includes approximately thirty regular classroom teachers, ten specialist teachers, and twenty paid classroom aides. Most of the faculty is black, with a minority of whites and Chicanos. Because of earthquake damage, the school has been operating on double session since February, 1971.

IDEA's initial contact with North School was through a faculty member, who actively promoted the ideas of the PSS program to the principal and other teachers. A core of interested teachers was formed, but the final decision to participate was rather unilaterally the principal's. Because of the school's Title I status, release time and some extra pay were available for teachers to engage in some kind of weekly "staff development" activity. In the absence of other suggestions from the faculty, the principal announced that the PSS program would be the official "staff development" activity, and that all faculty members would be expected to participated in it.

North School began PSS activities in November, 1971. The top problems from their problem census (Activities 4-6) give a fairly good indication of the school's social climate at the start of the program:

1. There needs to be an understanding by ALL personnel of their duties and responsibilities in terms of needs for our school. (This reflects a feeling that some faculty members were "shirking" or being given preferential treatment.)

2. As a staff we cannot get together on the direction in which we are going.

3. Teachers feel they are responsible only for their own classrooms and have nothing to do with the rest of the school.
The faculty at North School began work on their "duties and responsibilities" problem (\#1 above) in January, 1972, breaking it down into three sub-problems:

1. Lack of professional attitudes as evidenced by little enthusiasm and dedication.
2. All job categories are not clearly defined.
3. Even when duties and responsibilities are clear, methods of enforcement are not standardized for all staff.

At mid-year, the existing principal (a fifteen-year veteran at this school) was suddenly replaced by a younger man. This change called for a renegotiation of the "contract" between IDEIA and North School. The new principal agreed to let the program continue. After consulting with IDEIA and his team, he decided that teachers who did not want to participate in the program should be allowed to drop at this point, so that the majority would not be held back by the heel-dragging of a few. Though the new principal has been generally sympathetic to the program, he did make one significant change in the school schedule which has hurt the program: he discontinued the once-a-week early dismissal of afternoon classes which had made it possible for the faculty to meet as a whole, on the grounds that it was illegal.

Working in three separate groups, the faculty proceeded in February to look for alternative solutions to their "duties and responsibilities" problem. Two action steps were finally agreed upon:

1. To see that job descriptions for all auxiliary personnel are written and distributed to the staff.
2. To form a faculty-administration "liaison" committee to handle problems, grievances, etc. and to formulate plans for the school.

Both of these action steps are currently being implemented. The second of these has created a new formal mechanism for dealing with school problems in a way which represents the major staff interest groups. This mechanism appears to have considerable potential for raising faculty morale and improving North School's organizational problem solving in the future.
3. PALM SCHOOL

Palm School is a large K-8 school (about 1,100 students, 40 adults) in a white middle class community of about 30,000. IDEA contacted the principal of Palm School by mail in September, 1970 regarding participation in the PSS program. He was interested, and a poll of the faculty drew eighteen "interested" responses. The faculty filled out a series of pretest questionnaires in October, 1970, which revealed a generally low opinion of the problem solving adequacy of their faculty meetings. But the questionnaire medium revealed as much as the message: almost all the identifying research numbers were torn off the returned questionnaires. We feel this was indicative of the faculty's general distrust of their district administrators and their honesty in dealing with teachers. We discovered that there had been a long history of strained district-teacher relations as our acquaintance with Palm School grew.

Program activities began in about February of 1971 (using third revision materials), but Palm didn't get very far in the program that school year. They held only three school level activities, and only some of the teachers read the classroom level booklets. Our spring evaluation indicated that the program had not "caught on" in any meaningful sense. D-team members suggested a variety of reasons for this:

* The activities started too late in the year.
* The principal was new and still feeling his way.
* Quite a few of the staff members were new.
* Our pre and post questionnaires caused teachers to feel they were being "tested."
* There was too much individual reading, reading, reading.
* The staff "was pretty well, uh, had become more or less disoriented as a staff team." (Internally divided)

The principal, however, was quite enthusiastic about the program, and wanted to get a fresh start the next fall. General faculty unrest in the fall caused the principal to delay raising the question of continuing the PSS program until November, but at that time
slightly more than half of the faculty elected to take part, and meetings began in December, 1971, starting from the beginning with Activity One.

The faculty at Palm School is currently working on a very big problem which they call "student accountability": how to instill in students a feeling of responsibility for their own learning. It is still too early to tell how successful they will be in solving this problem, but a large number of the faculty are actively involved in working up action plans, and the concerted effort of these participants puts Palm School a long way closer to working as a school team than they were a year ago.
Hudson School is a relatively small K-6 school (about 300 students) in a small middle class suburban district. Hudson began participation in the program in February, 1971 (using third revision materials) and was the first school to stay with the program through a full problem solving cycle. Since the PSS meeting guidelines were still pretty rough at this time, \( |I|D|E|A \) staff members did a good deal of on-site consulting, rather freely modifying the materials to meet the school's particular situation and time requirements as the year drew near its end. With our help, they chose a "do-able" problem (disorder in the student lunch area) and arrived at a solution with which they were quite pleased. In fact, the lunchroom system first implemented in May, 1971 is still in effect and working very well.

Hudson decided to continue working with \( |I|D|E|A \) for the 1971-72 year, using our current PSS kit (fourth revision). However, we didn't detect a great deal of enthusiasm behind this situation. In fact, nothing happened at Hudson in October, then November, then December. By January we had given up on their continued participation with us, when we found to our surprise, that they had resumed school level problem solving activities, and were at work on a new problem. The problem they chose to work on was one which had plenty of potential for conflict: the problem of differential enforcement of playground rules by different teachers. \( |I|D|E|A \) observers attended two meetings, our observers felt that the central difficulty (non-agreement about what the school rules should be) was being avoided, and that the mood of these meetings seemed draggy and depressed, even though the faculty rated these meetings as productive on their post-meeting reactions.
A variety of indicators is contributing to my less than optimistic prognosis for Hudson School: but the root of the problem, as I see it, is the pattern of depressed, issue-avoiding behaviors which has been observed now on at least three different occasions at Hudson. I am unsure, at this point, how or even whether a packaged program like ours can help to loosen up this kind of communication logjam. A skilled consultant might be able to help this group move forward, if some members of the staff were willing to take up the challenge. But the aspects of our program which encourage discussion of process are apparently not potent enough to help resolve this problem.