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**ABSTRACT**

This report summarizes the technical report Outcome Evaluation Report for Preparing Educational Training Consultants: Skills Training (PETC-I) which presents the data collected about the three outcome studies of the PETC-I system. This information is primarily summative in nature and is designed to help those who may be considering the system as a training tool. Upon completion of the system, the PETC-I trainee is expected to be able to work with small groups to assist in improving process skills such as goal setting, problem solving, communicating, influencing, and decision making. The series is based on the rationale that educators with these process abilities can help schools continue to grow in organizational effectiveness by facilitating development of a climate supporting application of the process skills. The materials of the system include training strategies and procedures plus participant instructional materials. The PETC-I training consists of a two-week workshop. The first week is designed to familiarize participants (skills trainers) with the skills, concepts, and knowledge needed for conducting training in group process skills. The skills trainers also are acquainted with the Group Process Skills (GPS) workshop materials and instructional strategies. The second week consists of a 35-hour practicum experience in which teams of skills trainers (usually in groups of three) conduct a GPS workshop. (RC)



**SUMMARY OF OUTCOME  
EVALUATION: REPORT FOR  
PREPARING EDUCATIONAL  
TRAINING CONSULTANTS:  
SKILLS TRAINING (PETC-I)**

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Improving Teaching Competencies Program

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## PREFACE

This publication is one of a series of summary evaluation reports issued by the Northwest Regional Educational Laboratory to document evaluation findings for selected products. The subject of this report is *Preparing Educational Training Consultants: Skills Training (PETC-I)*, an instructional system developed in the Improving Teaching Competencies Program.

This report summarizes the technical report *Summary of Outcome Evaluation Report for Preparing Educational Training Consultants: Skills Training* which presents the data collected about the three outcome studies of the PETC-I system. This information is primarily summative in nature; it is designed to help those who may be considering the system as a training tool.

*Lawrence D. Fish*

Lawrence D. Fish  
Executive Director

## INTRODUCTION

The following is a summary of the *Outcome Evaluation Report for Preparing Educational Training Consultants: Skills Training (PETC-I)*.<sup>1</sup> The Outcome Evaluation Report was prepared for the Improving Teaching Competencies Program (ITCP) of the Northwest Regional Educational Laboratory (NWREL). This summary provides an overview of the evaluation results of three outcome studies of the PETC-I system. The reader is referred to the full technical report for details of the sampling procedures, instrumentation and data analysis procedures.

*Preparing Educational Training Consultants* is a series of three cumulative and sequential instructional systems. Upon completion of the first training system, the PETC-I trainee is expected to be able to work with small groups to assist in improving process skills such as goal setting, problem solving, communicating, influencing and decision making. The PETC series is based on the rationale that educators with these process abilities can help schools continue to grow in organizational effectiveness by facilitating development of a climate supporting application of the process skills.

The materials of the system, designed for mass distribution, include training strategies and procedures plus participant instructional materials. The PETC-I training consists of a two-week workshop. The first week is designed to familiarize PETC-I participants (skills trainers) with the skills, concepts and knowledge needed for conducting training in group

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<sup>1</sup> Arends, Richard I. and David Green. *Outcome Evaluation Report for Preparing Educational Training Consultants: Skills Training (PETC-I)*. Portland, Oregon: Northwest Regional Educational Laboratory, Improving Teaching Competencies Program, 1976.

process skills. The skills trainers also are acquainted with the *Group Process Skills (GPS)* workshop materials and instructional strategies.

The second week consists of a 35-hour practicum experience in which teams of skills trainers (usually in groups of three) conduct a *GPS* workshop.



## EFFECTS OF TREATMENT ON PETC-I SKILLS TRAINERS

This study tested the effects of the PETC-I instructional system on skills trainers in terms of: (a) their satisfaction with their PETC-I experience, (b) their perceptions that PETC-I is relevant, useful, and needed, and (c) their knowledge. The study was designed to compare these effects among three treatment groups. Group A included people who had previously taken both *Interpersonal Communications (IPC)* and *Research Utilizing Problem Solving (RUPS)* but who received only an abbreviated PETC-I treatment. Group B included people who had not taken IPC or RUPS, but who participated in the full PETC-I workshop. Group C included those who had taken both IPC and RUPS and who received a full week of PETC-I training. The abbreviated treatment consisted of a one-day orientation session conducted by the developers of PETC-I. This session included: (a) an overview and discussion of PETC-I, (b) an explanation on how to select, sequence and conduct skill exercises used in QPS workshops, and (c) time for the trios of skills trainers to make initial plans and to discuss these plans with the developers.

### TEST SITE CHARACTERISTICS

The original evaluation design called for using mailed invitations to recruit subjects for five workshops. It was anticipated that at least 30\* subjects would volunteer for each workshop. Constraints in the field caused some deviation from this design. First, instead of five sites only two (Houston, Texas and Vancouver, Washington) could be selected in time to conduct the tests. Second, a lack of response to mailed invitations resulted in fewer participants than the original design had required.

Because it was not possible to recruit enough subjects that had both prerequisites (*IPC* and *RUPS*), subjects were selected for Groups A and C if they met one of the prerequisites. Third, scheduling constraints and participant preferences to work with specific friends or colleagues prevented complete random assignment of subjects to Groups A and C. The amount of bias introduced into the study because of this factor is unknown.

Central office personnel of the Houston Independent School District coordinated recruitment of participants in Houston. Special invitations were extended to persons who were interested in preparing themselves to serve in a cadre of staff development trainers. There were a total of 24 participants: 8 in Group A, 10 in Group B and 6 in Group C.

The Evergreen School District worked together with NWREL to recruit participants for the Vancouver, Washington, site. The school district adapted brochures and application materials developed by NWREL. These were mailed to selected personnel in the district who had been identified as having the *PETC-I* prerequisites. Because Evergreen wanted their school administrators and central office staff trained in *PETC-I*, most of the subjects came from these populations.

The ITCP Office of Field Relations assisted in recruiting persons who did not meet the prerequisites by mailing invitations to all educators in the local county of the Evergreen School District as well as to persons in adjacent areas who had previously expressed an interest in acquiring *PETC-I* training. A total of 24 participants were recruited in Vancouver, 8 in each group.

A background questionnaire was administered to the participants. Group B at Evergreen was found to have a significantly greater percentage of females than did Groups A and C at that site. The combined treatment

groups at Houston showed a significantly greater percentage of females than did the combined Evergreen groups. A significant difference was also found in the educator roles at the two sites: Evergreen participants were predominately administrators (73 percent), while Houston participants were most frequently in the "staff" category (50 percent). Workshop participants did not differ significantly in the other four characteristics: age, years-work experience, education and previous NWREL training.

## RESULTS

A high degree of *satisfaction* was reported by the PETC-I participants on the final questionnaire. At least 80 percent of the subjects in all three treatment groups marked the two most positive points (on 5- and 6-point scales) on the three items assessing satisfaction. Differences between the treatment groups were slight, although Group C (full PETC-I treatment with prerequisites) appeared to result in a slightly higher percentage of satisfied participants.

When rating the *relevance* of the instructional system, over 60 percent of the skill trainers marked each item in the top two positive categories. Some variance was observed between items and groups. Group B (no prerequisites, full PETC-I treatment) produced the highest percentage of skills trainers who perceived the workshop as relevant. Few differences appeared between Group A (abbreviated PETC-I treatment) and Group C (one prerequisite, full PETC-I treatment).

On the three items assessing the skills trainers, *perceptions of the utility* of the training, over 60 percent of the participants responded positively. Differences between Groups A and C were slight; Group B produced the highest percentage of participants who perceived the workshop as useful.

Over 80 percent of skills trainers in all groups reported that there was a "definite" or "some" need for PETC type skills and abilities. Participants felt PETC-I had "excellent" or "good" potential for meeting this need. Groups B and C produced skills trainers who perceived a greater need as well as higher potential of PETC to fulfill it than Group A.

Using the criteria of skills trainer satisfaction and perceptions of relevance, utility and need, the percent of positive response was averaged to obtain a clearer comparison between the three groups. A smaller percentage of skills trainers in Group A responded positively on these criteria than did skills trainers in Groups B and C. On most of the criteria the differences between Groups B and C were slight and probably unimportant. Group B perceived the training as more useful than did Groups A and C. This may be due to the previous training the participants in Group A and C had.

A knowledge test was administered to determine whether different forms of treatment influenced the knowledge outcomes of the skills trainers. A t-test performed on the mean scores for the combined subjects at Houston and Evergreen showed the differences between sites were not statistically significant. Therefore the sites were combined. An analysis of variance between group means showed no significant differences among treatment conditions.

## EFFECTS OF TREATMENT ON GPS PARTICIPANTS

This study compared the effectiveness of skills trainers in Groups A, B and C to produce: (a) satisfaction in GPS trainers, (b) perceptions of relevance, utility of and need for the training in GPS trainees, and (c) knowledge outcomes in GPS trainees.

Prior to the GPS workshops, the skills trainers were grouped into three-person training teams. Each trio was composed of only Groups A, B and C subjects.

### TEST SITE CHARACTERISTICS

The same sites, Houston and Evergreen, were used for this study. Recruitment of GPS participants at Houston was coordinated by school district personnel. Brochures and applications prepared by NWREL were mailed to all teachers in the district. When this resulted in an insufficient response, teachers from the districts' "Magnet School Project" were asked to participate. Subjects' requests to attend workshops with friends or colleagues were honored. The remainder were randomly assigned to workshops over the three training conditions.

The Evergreen School District provided NWREL with a mailing list of educators in their district and the surrounding area. Persons on the list were invited to participate in GPS workshops through mailed invitations. Again, because the response rate was insufficient, informal word-of-mouth recruiting also occurred. As in Houston, subjects were randomly assigned to workshops and some deviations were allowed.

Recruitment at both Houston and Vancouver resulted in fewer subjects than required by the design. Only 17 groups were assembled. In addition, some of these were one or two persons below the recommended working size

of twelve persons. The number of GPS participants receiving training from Group A, B and C skills trainers were 65, 60 and 45 respectively.

There were a significantly greater percentage of female subjects at the Houston site than at Evergreen. No significant differences existed in any of the other characteristics: age, occupation, years of work experience, education and previous training.

## RESULTS

The results of the GPS final questionnaire show that respondents who experienced GPS workshops were highly satisfied and saw the workshop as relevant, useful and needed. The average percent marking the top 2 categories for item clusters showed over 75 percent reporting high satisfaction, over 65 percent reporting high relevance and utility, and over 95 percent responding positively to the need for and the potential of GPS training.

When the percent of participants responding positively were averaged, the following pattern emerged. Group C consistently had the greatest number of participants responding positively; second best was Group A. Group B always did the poorest.

Further analysis was done. Responses for the items that employed a 5- or 6-point scale were summed, the sites were pooled and the differences between the groups were examined. A one-way analysis of variance on responses to the final questionnaire showed significant differences among groups. The major difference found can be attributed to the discrepancy between responses of those in Group B with those in Group C, with Group C scoring higher. Essentially, no differences existed between responses in Groups A and B or between those in Groups A and C.



A knowledge test was administered to determine whether different forms of treatment influenced the knowledge outcomes of the GPS participants. A t-test performed on the mean scores for the combined subjects at Houston and Evergreen showed the differences between sites were not statistically significant. Therefore the sites were combined. An analysis of variance between group means showed no significant differences among conditions.

## EFFECTS OF TREATMENT ON CLASSROOM CLIMATE

This study investigated the impact of *GPS* training on the classroom climate for teachers participating in *GPS* workshops and compared these climates to teachers in a control group. The study was conducted in conjunction with another Improving Teaching Competencies Program product, *Interpersonal Influence (INF)*.

### TEST SITE CHARACTERISTICS

The evaluation design for this study called for the recruitment of 108 upper elementary teachers and their random assignment to one of three treatment groups. These three groups would participate in a one-week *GPS* workshop, a one-week *Interpersonal Influence* workshop or would serve as a member of the control group. Recruitment to this end was initiated in April 1974 with a distribution of brochures to fourth through sixth grade teachers in the Seattle, Washington, metropolitan area.

Constraints in the field caused some deviation from this design. Although a full complement of 36 participants per treatment group were recruited, slightly under two-thirds appeared at the first meeting. Subsequent difficulties in the data collection further decreased the number of participants taking part in this study. It was also decided not to make comparisons between the three groups but to separately compare the control group with each of the two treatment groups receiving training. Of the teachers from whom complete data were collected and used in subsequent analysis, 16 were in *GPS*, and 13 were in the control group.

A background questionnaire was administered to all subjects at the first meeting of each of the groups. Tests for significant differences between the treatment groups were not completed. It should be noted,



however, that most of the subjects were in their thirties and forties and had more than seven years of teaching experience. Few of the subjects had participated in other NWREL workshops.

#### DESIGN, INSTRUMENTATION AND IMPLEMENTATION

A comparison group, pretest, posttest design was used in this study. The treatment and observation schedule had data collection taking place in September and November 1974 with the treatment occurring in October 1974.

A climate inventory was used to detect differences in classroom climate. Intact subscales from existing instruments were put through a screening process, yielding 17 subscales which seemed most appropriate to the study. The instrument was administered in the classroom by colleagues of the teachers participating in the study.

#### RESULTS

Analysis and covariance was performed on the posttest scales of both forms of the climate inventory. The pretest score of the scale being analyzed was used as the covariate.

Inspection of the differences between adjusted mean scores for GPS and control classrooms seems to suggest a slight trend toward more positive climate in GPS classrooms, but these differences are small and statistically insignificant.

These data may reflect a lack of training effects. However, several problems with the study itself may also have contributed to the lack of effect. These include the small number of teachers with usable climate data, selection bias, higher than fourth grade reading level on several scales, the short time period between pretesting and posttesting.