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PEER REINFORCEMENT FOR SOCIAL WORK TRAINING: AN EVALUATION

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ABSTRACT

Techniques for peer reinforcement of social work training programs appear to be a promising complement to educational supervision. The authors conducted a quasi-experimental evaluation of its effectiveness for reinforcement of learning of interviewing skills. Subjects were income maintenance workers in a large state public welfare agency. Findings indicated that peer reinforcement may have resulted in knowledge retention and use of skills which were superior overall to those demonstrated among trainees denied access to peer reinforcement techniques. Interpretation of findings and productive areas for future research are suggested.

Even the best of continuing education is only as good as the vehicles available for implementation of learning and for reinforcement of skills acquired. When employees leave the classroom and return to the work environment, what can be done to assist them to retain and apply learning? Supervisors have commonly been viewed as a source of reinforcement. Kadushin (1976:130) has noted that "as a result of educational supervision the worker....learns the difference between good and poor practice and has some criteria by which he can be self-critical." Other writers have similarly stressed the responsibility of the social work supervisor for the ongoing professional growth of the worker (Munson, 1983; Middleman and Rhodes, 1984).

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The fact that supervisors may lack total familiarity with content and methods used in continuing education programs attended by their workers often makes reinforcement activities difficult. In addition, theories of adult learning seem to suggest that peers, based upon their equal status and comparable work experiences, may be potentially as good as or even a better choice for the provision of learning reinforcement than the supervisor. Webster (1971) observed that:

Adult education is more like marriage than child rearing. Despite the parental inclination of teachers, continuing education is even more a mutual education process than is childhood education. Adults learn together and grow older together.

The need for ongoing evaluation that may exceed the time capacity of the supervisee often is stressed. In the process of offering constructive criticism for growth, the supervisor is expected to be involved in the time consuming activities of "offering an explanation in support of the criticism, making the criticism specific, offering clear alternatives that the supervisee might consider and making concrete recommendations for changes" (Kadushin 1976: 176). These activities fall within the scope of follow-up and reinforcement required for adult learning designed to "prevent erosion of the learning experience through the passage of time" (Ingalls 1973: 105). They might also be performed by a peer.

Given the constraints of the supervisory role, those persons most likely to reinforce (or to extinguish) learning are those who have regular formal and informal contact with the employee, her/his peers. The concept of systematic and planned reinforcement for learning by peers is an extremely logical and promising complement to supervisory reinforcement. But can it be demonstrated that peer reinforcement can help a worker to apply learning?

During 1984, the authors designed and implemented a program of peer reinforcement and conducted a comprehensive evaluation of its effectiveness. The results of the research provided
a qualified endorsement of the concept and suggest certain areas where it may be especially beneficial.

Background of the Research

Peer Reinforcement for Continuing Education (PRCE) has been employed at the state Department of Social Services on an informal basis for several years. Social workers have been encouraged to rely on their peers for reinforcement of learning, a phenomenon that has arisen out of both choice and necessity in many social service agencies in recent years as personnel and funding cuts have been absorbed. However, until 1984, no systematic efforts to promote peer learning were implemented.

PRCE was operationally defined as "a system of regular written and verbal critiques of some easily measurable aspect of a workers performance conducted reciprocally by two peers who had simultaneously undergone the same course of continuing education." It was decided that existing training in the use of interviewing skills would lend itself to application of a PRCE program. It was concluded that at least a ten week period of PRCE should be used in order to have reasonable expectations that positive effects could be demonstrated. A clearly identified training component, emphasizing seven discrete interviewing skills was already a part of the "Integrated Casework Skills" training of all new workers. A quasi-experimental research design was employed. It sought answers to three research questions:

1. Do persons who are involved in PRCE activities subsequent to classroom training reflect a different level of retention of classroom knowledge of interviewing from those who are not involved in PRCE?

2. Do persons who are involved in PRCE activities reflect a different level of interviewing skill?

3. Does a comparison of PRCE participants with persons not involved in PRCE provide justification for the regular use of the approach for learning reinforcement among income maintenance workers?
The researchers hypothesized that workers who participate in the PRCE approach would have expanded learning opportunities. They would, therefore, be found to possess greater retention of classroom knowledge and more effective and more appropriate use of interviewing skills than those who did not use the PRCE. In short, they would be more competent workers following participation in the PRCE approach than their non-participating classmates. The hypothesis was based in part on the contention of Bishop (1976: 15) that:

for competency to exist, there must be not only the opportunity to observe, to practice, to experiment, to prepare, to transact, and to evaluate, but also a situation to receive prompt feedback and reinforcement regarding style and effectiveness followed by the opportunity to try again.

Summary of the Methodology

Forty-three new financial assistance workers were scheduled for a six day course of "Integrated Casework Skills" training during the February, 1984 cycle. The new workers had been recently employed in 23 county offices scattered throughout the state. Within the potential subject pool, eight pairs of workers (i.e., 16 persons, each of whom attended training with a peer from their own office) were identified. They constituted the experimental group. Sixteen others were selected at random from among those who did not have a peer from their office attending training with them and, therefore, were denied the planned, structured PRCE experience. They comprised the control group for the research.

Members of both groups completed all phases of training along with other trainees who were not selected for either group. As part of their general orientation, all trainees were told that research of an undisclosed nature was being conducted, and that they might be asked to participate in follow-up evaluation subsequent to training completion.

Following the last training component (a post-test of knowledge designed to measure learning
acquired during training) all but the sixteen members of the experimental group were dismissed. Experimental group members were then given an additional 45 minute orientation session during which they were informed that they were selected for use of the PRCE technique, and that certain activities would be required of them on a weekly basis over the next few months. All were given the opportunity to decline participation, but none elected the opportunity.

The broad concept of the PRCE was explained to group members. They were told that, with previously obtained supervisory concurrence and support, they would be observing one certification or recertification interview of their peer partner per week for ten weeks. They were to evaluate each interview using a Likert-type scale that had been developed. The evaluation instrument addressed both the appropriateness and the skill with which the various interviewing techniques had been employed. The workers were to discuss their evaluation with their partner immediately subsequent to the interview, recommending ways in which her/his interviewing skills might have been improved. Accumulated evaluations were to be mailed to the researchers after five weeks and after the tenth week using stamped, self-addressed envelopes that were provided. Workers were assured that evaluations would not be made available to supervisors, and could in no way constitute a part of performance evaluations.

The PRCE approach was begun the week following training. After five weeks of participation, all 80 evaluation forms were returned; 80 more were mailed back to the researchers after the tenth week.

At the completion of the ten week period, additional evaluation components were implemented with the assistance of both experimental and control group case supervisors. Members of both groups were asked to complete a written examination consisting of the interviewing content items drawn from the training post-test. The examination was administered by their respective supervisors and returned to the researchers. In addition, all 32 participants (experimental and control) were requested to select an initial certification or recertification inter-
view at random, to audio-tape it, and to mail the tape directly to the researchers. Scoring of written examinations was completed by the researchers. The tapes were independently evaluated by three judges using a slightly modified version of the Likert-type scale that had been employed by the experimental group members. The judges were (1) a trainer who had helped teach the interviewing skills component of the training, (2) a second year social work graduate student not employed by the agency who had reviewed videotape and written lesson materials from the training and (3) one of the researchers, a social work professor, who had also reviewed the training materials. Interviews were case numbered by the other researcher; none of the judges knew to which group a worker had been assigned. After all interviews were evaluated, respondents were identified as having been in either the experimental or control group. Comparative data analysis was performed.

All sixteen experimental group members conducted all peer evaluation critiques over the initial ten week period, but three of the sixteen refused to complete the final evaluation phase consisting of the written examination and submission of the audio-taped interview. Review of the peer evaluations of these three subjects submitted after the fifth and tenth weeks revealed that all three had fallen within the middle range of their group; i.e., they had been neither among the best or the worst as judged by their peers.

Fourteen of the original sixteen control group members (those not undergoing weekly PRCE) completed the final evaluation phase. Data analysis compared the indicators of interviewing knowledge and skill of these fourteen control group subjects with those of the thirteen experimental group members who provided completed data.

With a relatively small number of subjects within the two groups and the logistical impossibility of using total randomization in assignment to the groups (the experimental group members were chosen because of the availability of a peer undergoing the same training), the question of beginning comparability needed to be addressed. Specifically,
How comparable were the members of the two groups in regard to knowledge of interviewing skills immediately following training? Analysis of the interviewing subscale of the training post-test revealed that the experimental group had a median score of 21 of a possible 24 correct answers (87.5%) while the median score for the control group was also 21. The two groups were, therefore regarded as comparable in their knowledge of interviewing skills at the time of the completion of the training. Unfortunately, no indicator of competence in use of interviewing skills was available to ascertain comparability in this important area.

Changes in the Experimental Group

If improvement in use of interviewing skills (or, at least retention of skills) occurs as a result of the PRCE approach, this desirable phenomenon should be demonstrable by longitudinal analysis as well as by analysis of outcome data. Peer evaluations of interviews conducted during the five weeks immediately after training (February and March) were compared with later evaluations of those conducted during the subsequent five weeks (April and early May) for each worker in the experimental group.

Group median scores were computed for each skill and comparative analysis was performed. ($T_1$ with $T_2$) Because of the presumed lack of precision of the newly-developed data collection instrument, the data were treated as ordinal level and only the direction of change (rather than the amount of change) was used for analysis. Among the 18 skill categories, seven reflected an improvement in skills and eight were unchanged, while three reflected a decline.
Changes in Interviewing Skill Among Experimental Group Members: \( T_1 \) and \( T_2 \).

### A. Appropriateness

<table>
<thead>
<tr>
<th>Skills</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Nonverbal attending</td>
<td>N/C</td>
</tr>
<tr>
<td>2. Open/closed questions</td>
<td>+</td>
</tr>
<tr>
<td>3. Reflection</td>
<td>+</td>
</tr>
<tr>
<td>4. Information sharing</td>
<td>+</td>
</tr>
<tr>
<td>5. Encouragement</td>
<td>N/C</td>
</tr>
<tr>
<td>6. Directions</td>
<td>+</td>
</tr>
<tr>
<td>7. Self-disclosure</td>
<td>-</td>
</tr>
<tr>
<td>8. Immediacy</td>
<td>-</td>
</tr>
</tbody>
</table>

### B. Effectiveness

<table>
<thead>
<tr>
<th>Skills</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Nonverbal attending</td>
<td>N/C</td>
</tr>
<tr>
<td>2. Open/closed questions</td>
<td>+</td>
</tr>
<tr>
<td>3. Reflection</td>
<td>+</td>
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</tr>
<tr>
<td>7. Self-disclosure</td>
<td>N/C</td>
</tr>
<tr>
<td>8. Immediacy</td>
<td>N/C</td>
</tr>
<tr>
<td>9. Handling of special problems</td>
<td>N/C</td>
</tr>
<tr>
<td>10. Integration of skills</td>
<td>N/C</td>
</tr>
</tbody>
</table>

\[ p = .046 \] (direction predicted)

The conventional .05 level of significance had been preselected for use. Analysis revealed that the overall improvement was statistically significant (sign test) when the frequency of the desired "improvement" or "no change" was compared with the undesirable "decline" in use of skills. Workers in the experimental group were apparently using interviewing skills as well or, usually, better during the latter five week period than during the five week period just subsequent to training. (When the data are broken down and the appropriateness and effectiveness subscales are examined separately, however, the improvement reflected in either subscale is not statistically significant: \( p = \)
.344 and .062 respectively). It is probably safe to conclude that, as a group, at least little decline in skills occurred among the experimental group, and indications of a tendency toward overall retention and improvement can be documented. Many questions, necessarily, remained. Did the desired result occur because of factors such as improvement in self confidence, increased on-the-job experience or good line supervision? Or, was the PRCE the explanation? Did workers not exposed to PRCE experience a similar overall retention or growth in use of skills?

**Principal Findings**

Comparative outcome data from the experimental and control groups provides a more conclusive answer to the research question. Knowledge of interviewing skills may best be reflected in results of the written test consisting of the same interviewing items that had earlier been used to access the comparability of the two groups. Application of knowledge, use of the skills themselves, is probably better reflected in the judges' evaluations of the taped interviews that had been conducted by the workers.

The results of the written examination for the 27 subjects (13 experimental and 14 control) who completed it ranged from a high of 23 correct to a low of 12 (24 multiple choice items). Test scores were rank ordered, and the Mann-Whitney "U" test was employed to compare the rankings of the experimental group members with those of the control group.

A readily noticeable number of the lower scores were achieved by members of the control group. Five of the six lowest scores (including the two lowest) and eight of the eleven lowest scores were achieved by workers who did not participate in PRCE. Statistical analysis revealed that, as a group, the experimental group reflected a statistically significant higher performance on the test (p=<.05, corrected for ties, direction predicted) than did members of the control group.

Evaluations of audio tapes were employed in order to determine whether those workers who parti-
cipated in PRCE (experimental group) might reflect more appropriate and more effective use of interviewing skills than did workers in the control group. After consideration of several ways in which to address the problem of a single very high or very low score if scores were simply averaged, it was decided to score each interview by: (1) using the two judges' scores that reflected the best agreement, discarding the most deviant score (2) taking the average of the two remaining scores. This process resulted in an almost identical number of scores being discarded for each of the three judges (i.e., scores of no one judge were consistently rejected). Worker evaluation scores thus achieved were compiled and analyzed separately for each of the two evaluation subscales (appropriateness and effectiveness). For both subscales, all 27 scores were rank ordered and analyzed using the Mann-Whitney "U".

In the area of appropriateness of use of interviewing skills, those subjects in the experimental group who had undergone PRCE were rated higher as a group than those who were in the control group. They had an average score of 2.88 on a four point scale versus an average of 2.57 for the control group. The had seven of the top ten scores and only three of the bottom nine. Yet statistical significance was not achieved using the Mann-Whitney "U" (p=<.10, corrected for ties, direction predicted). There was judged to be insufficient proof that the members of the experimental group used interviewing skills more appropriately than did members of the control group.

In the area of effectiveness of use of interviewing skills, a similar but statistically significant pattern was observed. The experimental group achieved an average score of 2.85 versus 2.35 for the control group. Seven of the top ten scores were achieved by the experimental group members; seven of the ten lowest scores came from members of the control group. The difference was statistically significant (p=<.05, corrected for ties, direction predicted).
Conclusions and Recommendations

The results of the research provided what might best be described as a qualified endorsement of PRCE as a method of support to reinforce worker training in the use of interviewing skills. The analysis of data revealed that workers who participated in PRCE:

1. showed a pattern of improvement or at least lack of decline in both appropriate and effective use of skills following training.
2. scored significantly higher than the control group on the written test of interviewing skills administered approximately four months post training.
3. scored significantly higher in effective use of skills as judged by outside reviewers.
4. scored somewhat higher overall in appropriate use of skills, but the difference did not achieve statistical significance as judged by outside reviewers.

Why did the experimental group members perform better on the written test and on the effectiveness subscale, but the difference between their performance and those of control group members on the appropriateness subscale was not statistically significant? Several explanations for this inconsistency can be proposed:

1. The peer training method may be more effective for knowledge retention and growth than for broad-based application of the knowledge.
2. A single, taped new eligibility determination or recertification interview may not provide adequate opportunity for appropriate use of interviewing skills, i.e., experimental group members might have demonstrated more appropriate use of
the skills if the opportunities had presented themselves.

3. The nature of the requirements of the income maintenance worker's job may be such that appropriate use of the interviewing skills may not always be a requirement. It may be unrealistic to expect a significant difference in the two groups to emerge because the skills may be only occasionally needed by any worker to conduct the interview.

The impression of the researchers is that some combination of the second and third explanations may provide the best interpretation of the findings. All reviewers of the tapes noted that there were a relatively large number of instances where there was no opportunity to appropriately use a given skill. Appropriate chances to employ, e.g., self disclosure or immediacy, or to handle a special problem were in evidence in only a small percentage of interviews. In addition, many workers in both of the groups tended to follow the form to be completed quite rigidly, reading many of the questions to be asked. They got the job done, did nothing especially poorly, but also tended not to risk using some of the more creative and, perhaps, unnecessary (for the given case) skills that they had been taught. This practice may have tended to minimize skill and knowledge differences.

There was sufficient evidence to indicate that the PRCE approach may have good potential; it should certainly not be dismissed prematurely as ineffective. But, how might future research better determine if it truly accomplishes its objectives? A desirable follow up study would be one that might employ essentially the same design and instrument, but would also employ randomization or planned group assignment to insure interviewing skill comparability of the two groups prior to introduction of the PRCE method. In addition, the research would either:

1. replicate the research using human service workers or workers in another
more treatment oriented agency where traditional social work interviewing skills are required more frequently for job performance or,

2. replicate the research with a similar cohort of workers, but use at least three taped interviews to be evaluated by the reviewers. In the course of the additional interviews, there would be increased opportunity for both experimental and control group members to use desired interviewing skills.

It might also be productive to continue to follow the experimental group subjects of the current research or to conduct longer range research on the PRCE approach to see if informal reinforcement continues after there are no longer any formal requirements for its use. Does a productive peer relationship, once established, continue to serve to stimulate professional growth?

The PRCE approach appears to have promise. It is conceptually sound and, in one short-term evaluation, has been given a tentative endorsement by empirical research. It may be a valuable response to the problem of a lack of skill retention and application following the completion of training and other forms of continuing education.

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