The purpose of this study was to compare the effectiveness of three instructional approaches to an established and conceptually related approach, microcounseling. The subjects were thirty-two graduate counseling students, randomly assigned to four treatment groups. These were microcounseling, modified microcounseling, self-modeling, and verbal modeling. The procedure involved an initial 5-minute interview, a 20-30 minute instructional period, and a final 5-minute interview. Comparative results revealed that each instructional procedure was equally effective in influencing the dependent variable from the pretest to posttest phases. The author concludes that the four approaches represent a potential for matching modes of instruction to the individual student's type of learning. Further, the existence of a variety of instructional alternatives permits students to employ one or several, as best fits their situation. (Author/BW)
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The Relative Effectiveness of Self-Modeling as a Procedure
for Teaching Basic Interviewing Skills

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Microcounseling (Ivey, 1971) is an established process for teaching basic interviewing skills. A number of researchers have built upon and extended the original model of microcounseling proposed by Ivey and his colleagues (Ivey, Normington, Miller, Morrill and Brave, 1968). Microcounseling incorporates videotaping in a multistep process designed to model specific interviewer behaviors and to reinforce the behaviors as they occur. Recently, Ivey (1974) referred to a number of studies which have furthered the development of microcounseling as an effective instructional procedure.

The extensive development and testing to which microcounseling has been subjected support it as a standard of comparison for other instructional approaches. DiMattia and Arndt (1974) compared the effectiveness of microcounseling with reflective listening procedures in teaching attending behaviors and found similar results for both approaches. In a lengthier study, Moreland, Ivey and Phillips (1973) compared microcounseling and a conventional instructional procedure over six training sessions with students enrolled in an introductory psychiatry course; results generally supported microcounseling as the more effective procedure. Studies such as these begin to respond to Hansen and Warner's (1971) observation that solid experimental investigation is needed to determine the relative effectiveness of methods available to counselor educators.

The success of microcounseling, Ivey's (1974) suggestion that microcounseling serve as a jumping-off place for the development of new models of training, and the need for studies comparing alternative modes of training all provided impetus for the current study. Review of the components of a successful system, microcounseling, contributed to the identification of three alternative teaching procedures: modified microcounseling, self-modeling and verbal modeling.

Why is microcounseling effective? Ivey, et al. (1968) propose that microcounseling owes its potency to several sources. Identification of a specific behavior to be learned, exposure to expert verbal and behavioral models, opportunity to practice, and supervisory differential rewarding of appropriate learner behavior all contribute to the efficacy of the total process. The extent of each component's contribution to the overall result is presently unknown. Ivey (1974) recently observed, however, that the opportunity for learner self-observation might be a major source of potency. Ivey's speculation finds a measure of support in Kazdin's (1974) investigation of the reactive effects of self-monitoring. His subjects learned most when they monitored their own "desirable" behavior, an effect which was further enhanced when subjects were informed of their performance relative to a criterion level. Thus, to capitalize on the effects of self-observation, a modified microcounseling process was devised whose purpose was to focus the learner's attention on his performance of the target skills.
A second instructional alternative involving self-observation was also devised. This alternative is called self-modeling. One important variable influencing the efficacy of a model in observational learning is the similarity of the model and observer. Kagan (1967) has argued that more attention is focused on models who are perceived by the observer as being "like me." Thus, serving as one's own model realizes the maximum potential associated with observer-learner similarity.

To be most effective, however, the self-model may need to be performing the desired response at criterion levels. McFall and Lillesand (1971) suggested that playback and viewing of one's own inept responses may provoke anxiety in the observer associated with the possibilities for negative criticism from oneself or a supervisor. Thus, playback of a self-model with zero levels of inept responding removes one potential source of observer anxiety associated with videotape review. The self modeling procedure therefore was developed which permitted learners to view videotaped models of themselves performing the desired responses at criterion levels.

A third instructional alternative was also defined. Verbal modeling is a common mode of instruction when learners possess adequate language development. Bandura (1969) suggested that verbal modeling as a means of instruction can be both effective and efficient relative to behavioral modeling. Part of the microcounseling process consists of a written portrayal of the target skills. The sole contribution of the text to the overall microcounseling process has not been investigated; therefore, this verbal model was included as a separate alternative instructional procedure.

The major purpose of the present study was to compare the effectiveness of the three aforementioned instructional approaches to an established and conceptually related approach, microcounseling.

Procedures

Subjects

The subjects were 32 male and female graduate students enrolled in a beginning course in counseling and guidance. Subjects were randomly assigned so as to constitute 4 groups of 8 students each. Subjects were informed that the experimenters were interested in developing ways to incorporate videotaping in teaching interviewing.

Treatment Variations

A different treatment procedure was used with each of the 4 groups: microcounseling, modified microcounseling, self-modeling and verbal modeling. For each, the general procedure was:

1. An initial 5 minute videotaped interview during which the subject was instructed to "get to know this person."
2. An instructional period of 20-30 minutes.
3. A final 5 minute videotaped interview during which the subject was instructed to "get to know this same person better."

Interviewees were counseling students from another beginning course. Experimenter effect was controlled by having each of the four doctoral students serving as supervisors administer each of the four treatments.
An "Attending Skills" manual, a six page text essentially similar to those described by Ivey (1971), was prepared for use as the verbal model and as a component of the conventional and modified microcounseling treatments. This text focused upon the desired interviewer skills: looking at the interviewee, pausing before responding, and using brief, following, open responses. Brief was defined as about 5 seconds in duration; following was defined as staying on the topic being discussed; and open was defined as an utterance taking a form requiring more than a one or two word response.

Verbal model. The verbal modeling procedure required that, following the initial five minute interview, the subject be handed the "Attending Skills" text with the instructions, "Read this in Room 214, then come back when you are finished and we will make another videotaped interview."

Microcounseling. The microcounseling procedure followed that described by Ivey (1971). The sequence for each subject involved conducting an initial interview, followed by reading "Attending Skills", viewing with supervision a video model of an expert and the subject's own initial interview, and then conducting a second interview.

Modified microcounseling. The modified microcounseling procedure substituted repeated review of the subject's own initial interview in place of viewing an expert model. Each subject reviewed a three minute segment of his own initial interview three times, each time recording each occurrence of a designated target behavior.

Self-modeling. The self-modeling procedure required that each subject conduct a second interview with a different interviewee immediately following the first interview. The subject was told, "Go in and get to know this next person. During this interview, I would like you to use just those verbal responses that you will hear in your earphone. Remember, use just the responses that I will give you through your earphone. Do you have any questions? Let's practice one or two responses over the earphone before the interview begins." A prompted five minute interview was then conducted during which the subject performed the target behaviors at expert levels. This videotape of the subject then became the expert model which was reviewed and commented upon with the supervisor. Review of the self-as-expert tape was followed by the subject conducting a final five minute interview.

Dependent Variables. Four measures were used as estimates of the effects of the various treatments: duration of pause preceding an interviewer utterance, frequency of interviewer utterance, proportion of open/closed interviewer questions and proportion of interviewer utterances introducing new topics into the dialogue. These measures tap interviewer skills among those identified within the microcounseling paradigm (Ivey, 1974).

Audiotapes were prepared from the total group of 64 videotaped interviews. Each audiotape contained a series of five minute interviews drawn in random order from the total pool of videotaped interviews. Audiotapes were scored by teams of two judges. Judges were post-masters level counselors.
Duration of pause and duration of utterance estimates are essentially timing tasks. Trials among three judges using stopwatches resulted in 98% agreement on estimates of duration of pause and duration of utterance. Training trials across five judges resulted in 89% agreement on discrimination of open and closed interviewer leads and 83% agreement on discrimination of interviewer leads following an old topic or introducing a new one.

Results

A four (treatments) x two (phases) repeated measures analysis of variance (Kirk, 1968) was performed to determine if the instructional strategies differentially influenced subjects' interviewing behaviors. For every comparison made, no significant baseline differences existed among conditions. The comparability of treatment groups at baseline can be seen in Table 1.

Table 1

<table>
<thead>
<tr>
<th>GROUP</th>
<th>Dependent Variables</th>
<th>Pre</th>
<th>Post</th>
<th>Pre</th>
<th>Post</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Duration of Pause*</td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td>Microcounseling</td>
<td>0.45 0.96</td>
<td>15.00</td>
<td>7.38</td>
<td>22 62</td>
<td>77 75</td>
<td></td>
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<tr>
<td>Modified Microcounseling</td>
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<td>17.50</td>
<td>9.75</td>
<td>20 51</td>
<td>78 87</td>
<td></td>
<td></td>
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<tr>
<td>Self-Modeling</td>
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<td>16.88</td>
<td>11.55</td>
<td>26 58</td>
<td>81 91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal Model</td>
<td>0.34 0.80</td>
<td>13.88</td>
<td>8.75</td>
<td>27 41</td>
<td>72 78</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* In seconds

The analysis of variance disclosed a substantial trials effect for the following dependent measures: mean duration of pause (F=16.61, df=1/28, p<.001), frequency of utterance (F=37.63, df=1/28, p<.0001), percentage of open responses (F=40.407, df=1/28, p<.00001), and topic shifts (F=2.90, df=1/28, p<.10). Although the analysis indicated there were no interactions between instructional procedures and any other variables, significant changes occurred from the pretest to the posttest phases. These analyses thus revealed that each instructional procedure was equally effective in influencing the aforementioned parameters from the pretest to the posttest phases.
Discussion

The present study contains two important implications for counselor education; the comparable effectiveness of the instructional approaches and the opportunity for students to engage in self-paced instruction. All the instructional procedures were equally effective as evidenced by the significant pre-to-posttest trials effects. These four approaches represent a potential for matching modes of instruction to individual student's type of learning. The existence of a variety of instructional alternatives permits students to employ one or several, as best fits their situation.

Two of the procedures employed in the present study have potential as student-paced learning devices. Both the text and the self-as-expert tape represent models to which the learner may have repeated access without the need for supervision. Both text and self-as-expert videotaped model incorporate an explicit criterion against which subsequent learner performance can be compared through self-monitoring. Thus, not only do these instructional approaches appear easily adaptable to conventional self-paced instructional procedures, but they also free instructional personnel for other tasks.

This study points to a need for further investigation in several areas. Only indirect evidence exists about the sources of instructional potency associated with such factors as effects related to practice, attentional and retentional processes and feedback conditions. Paraphrased for counselor education, Paul's (1967) question, "Which instructional procedures produce what results with which learners under what conditions?" remains largely unanswered.

The present study, as have similar investigations cited above, assume that the learner will retain and generalize his or her newly acquired interviewing skills beyond the immediate instructional situation. Results of a recent investigation involving a one-week follow-up of instruction in interviewing are not encouraging (Lauver and Brody, 1975). Careful attention to the goal of learner retention and generalization of target skills beyond the instructional situation is needed and overdue.

Perhaps an examination of types and scheduling of learner feedback might disclose some potential means of encouraging generalization of learned responses. Flashing lights, verbal praise and a numerical rating are examples of immediate feedback to learners provided in studies by Dowd and Blocher (1974), Carlson (1974) and Reddy (1969). The above studies demonstrated that awareness of an instrumental relationship between a target behavior and a contingent consequence such as light, supervisor comment or judges' rating could produce a change in learner behavior in the presence of the contingency. In each of these cases, however, the contingent reward is bound to the experimental setting; it is extrinsic to the dyadic relationship in which we intend that the subject employ the behavior. Generalization goals might be better served by procedures which enhance learner awareness of the instrumental relationship between his interview behaviors and the responses of the interviewee.
References


Lauver, P. J. and Brody, G. H. Acquisition and retention of verbal interviewing behaviors as a function of two modeling-based instructional techniques. Paper to be presented at the meeting of The Western Psychological Association, Sacramento, April 25, 1975.


