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Shan A. Jumper

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IMMEDIATE FEEDBACK USING THE "BUG-IN-THE-EAR" IN COUNSELOR
TRAINING: IMPLICATIONS FOR COUNSELING SELF-EFFICACY, TRAINEE
ANXIETY AND SKILL DEVELOPMENT

by

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A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

Grand Forks, North Dakota
December, 1998



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J95

This dissertation, submitted by Shan A. Jumper in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

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This dissertation meets the standards for appearance, conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

Harvey Kuntz
Dean of the Graduate School 8-18-97

Date

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PERMISSION

Title Immediate Feedback Using the "Bug-in-the-Ear" in Counselor
 Training: Implications for Counseling Self-Efficacy, Trainee
 Anxiety and Skill Development

Department Counseling

Degree Doctor of Philosophy

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ABSTRACT

This investigation examines the delivery of immediate, in-session feedback using the “bug-in-the-ear” (BITE) as an instructional technique in conjunction with live supervision during the counseling practicum. The study was conducted to explore an effective means of supervisor intervention which did not disrupt the counseling session. Few empirical investigations have been conducted in this area, and previous studies on this instructional aid used in models of live supervision were largely narrative in design.

Counseling self-efficacy, trainee anxiety, and counseling performance were examined for twenty graduate student counselor trainees enrolled in the department of counseling at a northern plains university. Ten participants received immediate feedback via the BITE in conjunction with a live supervision model of training during the first half of 10 practicum sessions conducted at a community counseling clinic. Ten participants serving as controls received live supervision without the BITE feedback during their 10 sessions.

Results indicated that participants who received immediate feedback via the BITE demonstrated significantly greater increases in counseling self-efficacy throughout the course of the investigation than did the control group participants. Changes in participant anxiety levels did not differ significantly between groups. BITE or no-BITE feedback condition, changes in counseling self-efficacy and changes in anxiety level combined to account for significant portions of the variance in participants’ scores on two measures of

counseling performance. Participants reported no adverse effects due to the immediate feedback, although problems with the physical equipment were noted. A series of exploratory analyses based on previous BITE investigations were also conducted. Attempts to theoretically explain the benefits of incorporating immediate feedback in live supervision using Bandura's (1977) self-efficacy theory are presented. Implications for the training of graduate students in the counseling practicum and suggestions for future research in this area are discussed.

CHAPTER 1

INTRODUCTION

The clinical supervision of psychologists, psychiatrists, counselors, social workers and related mental health professional has long been an area of concern for all parties involved. Certain constructs related to clinical supervision during the early training of these professionals, which affect the acquisition of therapeutic skills such as counseling self-efficacy and trainee anxiety, have received recent attention in the social sciences research literature. Counselor educators have identified two limitations inherent in the structure of traditional supervision which affect counseling self-efficacy and trainee anxiety and inhibit the amount of learning that can occur for the novice counselor. One such limitation is that the impact of the supervisor's feedback on the counselor trainees future performance is minimized by the time delay which occurs between counseling sessions and supervision. The second limitation of traditional supervision is the supervisor's reliance on the trainee's self-report of counseling sessions. This reduces the amount and accuracy of stimulus information available to the supervisor, thereby limiting the quantity and quality of the supervisor's feedback to the trainee.

Using audio or video tape recordings of the trainee's counseling sessions in supervision increases the amount and accuracy of stimulus material available to the supervisor. However, the effectiveness of supervision and training remains limited even

with the use of audio or video tape recordings. These methods do not address the delayed interval present between both (a) the actual counseling session and the supervision interview when the trainee receives feedback from the supervisor, and (b) the trainee receiving feedback in supervision and the opportunity to implement this feedback in the next counseling session.

Live supervision of counselors in training seeks to address these limitations associated with traditional supervision. A recent survey (Bubenzer, West, & Gold, 1991) found that 51% of 307 responding graduate counselor education programs use live supervision in the training of masters level counselors and counseling psychology doctoral students. Training programs in marriage and family therapy have also long been proponents of live supervision. According to a survey conducted by Kaplan (1987), 80% of 33 responding institutions require live supervision in their training of marriage and family therapists.

The variety of instructional techniques which can be used in conjunction with live supervision have been described in the counseling and marriage and family therapy literature. These include the use of: (a) the "bug-in-the-ear", which is reviewed extensively in the next chapter; (b) "phone-ins" (Bubenzer et al., 1991; Liddle, Davidson, & Barrett, 1987; Liddle & Schwarz, 1983; and Wright, 1986); (c) consultation breaks (Byng-Hall & Campell, 1981; Liddle, Davidson, & Barrett, 1987; and Liddle & Schwarz, 1983); (d) the "reflecting team" (Landis, & Young, 1990) or "consultation group"

(Liddle, Davidson, & Barrett, 1987); and (e) the use of the supervisor as a co-therapist (Bubenzer, et al., 1991; Freeman & McHenry, 1996; and Kaplan, 1987).

Few empirical investigations comparing the effectiveness of these different techniques have been conducted. Research is needed that compares the effectiveness of two or more of these techniques, so that counselor training programs can maximize the use of live supervision in the teaching of appropriate therapeutic skills.

Background of the Study

In live supervision, supervisors observe counseling sessions of beginning trainees as they occur. An observation room equipped with a one way mirror or a television monitor adjoins the therapy room. This allows supervisors to be immediately aware of the trainees performance and the dynamics of the trainee client relationship. Live supervision affords the supervisor the opportunity to intervene in the session if such intervention is needed to protect the welfare of the client (Bubenzer, et al., 1991). Other advantages of live supervision include eliminating the discrepancies between the trainees' self-report and what actually transpired in the counseling session, and the opportunity to provide near immediate feedback enabling the trainee to avoid major difficulties in the session (Montalvo, 1973).

Although most descriptions of live supervision praise its usage and discuss the advantages of live supervision over more traditional supervisory approaches, there appears to have been few empirical investigations of the effectiveness of live supervision. Fenell, Hovestadt, and Harvey (1986) compared delayed feedback and live supervision

models of marriage and family therapy training. This study reported no significant differences in the two models' ability to help trainees develop family therapy skills. Some potentially important limitations of Fenell et al.'s (1986) study were low statistical power and differences in experience level for the supervisees in the delayed feedback and live supervision conditions.

As a result of these conclusions, Kivlighan, Angelone, and Swafford (1991), conducted their own investigation on the effectiveness of live supervision. This investigation compared a group of counseling trainees who received live supervision (N=23) with a cohort group that received videotaped supervision (N=25). They found that trainees who received live supervision used more relationship and support intentions in counseling. In addition, the clients of trainees in the live supervision group reported stronger working alliances with their counselors and less smooth sessions than clients of trainees in the videotaped supervision group. Kivlighan et al., concluded that "live supervision enhanced or sped the learning of an interpersonal-dynamic approach to therapy" (p. 489).

One technique used in conjunction with live supervision involves the delivery of immediate, in-session feedback to counselor trainees using the "bug-in-the-ear". An extensive literature review on the use of the "bug-in-the-ear" (BITE) uncovered relatively few articles on its use in clinical training. Despite the fact that all reports on using the BITE in clinical supervision describe favorable implications with advantages believed to outnumber disadvantages, the majority of the reports discovered were narrative in nature.

The few empirical investigations (six published studies, two doctoral dissertations) have utilized research designs which limited their findings. As a result, it appears that the exact nature of the effect of using the BITE has yet to be determined.

The structure inherent in live supervision models lends itself to several key dimensions of Bandura's (1977) psychological theory of behavior change based on social learning principles. Self-efficacy theory (Bandura, 1977; 1982; 1986) proposes a model to explain how people are able to change their behaviors to achieve more desired outcomes. Self-efficacy theory can and has been applied to the acquisition of counseling skills (Reese, 1993; Johnson, Baker, Kopala, Kiselica & Thompson, 1989; Sipps, Sudgen, & Faiver, 1988, etc.). The literature on self-efficacy theory in relation to counseling is reviewed later in this report. However, a seemingly important area of investigation which has yet to be examined empirically is the relationship between live supervision models and self-efficacy theory. Self-efficacy theory postulates that an individual's likelihood of achieving successful behavior change is based on outcome expectations and efficacy expectations (Bandura, 1977). Efficacy expectations are believed to be influenced in an individual in four ways. Three of the opportunities for influence on an individual's efficacy expectations appear to be inherently provided for by general models of live supervision. The fourth potential influence could potentially be addressed by a specific instructional technique used with live supervision.

According to Bandura (1977) the four dimensions which can influence efficacy expectations are "(1) performance accomplishments; (2) vicarious experiences; (3) verbal

persuasion; and (4) emotional arousal" (p. 191). In the counseling practicum which utilizes a live model of supervision, trainees are provided with the experience of conducting actual counseling sessions with real clients (performance accomplishments), observing their peers conduct counseling sessions (vicarious experiences), and the presence of the supervisor who observes the session, supporting and instructing the student (verbal persuasion). It is the fourth potential influence on efficacy expectations, emotional arousal, which may be particularly problematic in the context of live supervision. In this setting, a trainee's anxiety and emotional arousal is likely to increase, because the trainee's supervisor, practicum instructor (professor) and peers are observing the novice trainee conducting counseling sessions for the first time.

What is clearly needed, then, is an empirical investigation of a specific instructional technique which has the potential for lowering the trainees level of emotional arousal experienced in the context of live supervision in the counseling practicum. Such a technique, in order to be judged effective, will also need to affect increases in the trainee's efficacy expectations for success (self-efficacy), as well as show that trainees receiving this treatment demonstrate significantly higher scores on measures of the desired behavior attempting to be changed, in this case, the execution of appropriate and effective counseling behaviors.

Purpose of the Study

The purpose of the my study was to evaluate the bug-in-the-ear (BITE) process of delivering immediate, in-session feedback during the live supervision of beginning

counselor trainees. Specifically, the BITE technique was examined to determine if its use affected several key dimensions associated with the training of beginning masters' level counselors. These dimensions included counseling self-efficacy, anxiety, and skill development. Subjects who experienced the BITE during the live supervision process were compared with subjects who received live supervision without the BITE.

Differences in trainee anxiety, self-efficacy, and counseling performance were examined.

Despite the results of a recent survey (Bubenzer, et al., 1991) which show that the bug-in-the-ear is used in approximately 25% of counselor education programs, empirical studies of the effectiveness of using the BITE in counselor training are few in number and have generated inconclusive results. In another survey (Freeman & McHenry, 1996), 83% of counselor educators responding felt that live supervision had more than nominal value in supervision, yet only 25% placed the same value on using the BITE as a supervisory tool. I propose that the reason for this is the lack of conclusive empirical data supporting the use of the BITE to deliver immediate, in-session feedback.

In conducting this investigation I sought to contribute to this area of research by providing empirical confirmation of the notion expressed by non-experimental investigators that the BITE is a valuable tool for clinical training and research (Boylston and Tuma, 1972; Cohn, 1973; Gallant, 1989; Korner & Brown, 1952; Salvendy, 1984; Sanders, 1966; and Ward, 1962). In addition, I attempted to improve upon the designs used in previous research endeavors (Carlson, 1974; Crawford, 1993; Golsan, 1976; Mosley, 1982; Reddy, 1969; and Tentoni & Robb, 1977) which examined the

effectiveness of the bug-in-the-ear as an instructional technique in the training of master's level counselors. The improvements included conducting an examination of the BITE technique in a carefully controlled, naturalistic environment, measuring the trainees behaviors in supervision as well as in the counseling session, and providing multiple sources of trainee evaluation. My investigation also examined the use of the bug-in-the-ear to reduce counselor trainee anxiety. This represents another area which has not been specifically tested in previous research on BITE effectiveness. Finally, I propose a theoretical connection which explains the benefits of delivering immediate feedback in the live supervision of counselor trainees.

Since the introduction of self-efficacy theory (Bandura, 1977) numerous independent investigators have attempted to provide empirical support for the applications of this theory to human behavior change in a wide range of settings (Goldfried & Robins, 1982; Lent, Brown, & Larkin, 1984; Maddux, Scherer & Rogers, 1982; Marzillier & Eastman, 1984; Multon, Brown & Lent, 1991; Tryon, 1982; and Wood and Locke, 1987, etc.). Although studies have been conducted which test the applications of self-efficacy theory to counselor training (Dunnewold, 1982; Johnson, Baker, Kopala, Kiselica and Thompson, 1989; Larson, Suzuki, Gillespie, Potenza, Bechtel, & Toulouse, 1992; Reese, 1993; Rezek, 1994; Salmi, 1992; Sipps, Sudgen and Faiver, 1988; and Watson, 1992), the relationship between self-efficacy theory and live supervision in counselor training has not yet been addressed in clinical research.

Research Questions

My study attempted to answer the following research questions:

1. Do increases in counseling self-efficacy significantly differ between counselor trainees who receive BITE feedback in addition to live supervision and counselor trainees who receive only live supervision?

2. Does the delivery of immediate, in-session feedback using the BITE significantly lower anxiety levels of counselor trainees in live supervision?

3. Do counselors in training who receive BITE feedback in addition to live supervision show significantly higher levels of general counseling skill development and higher level counseling behaviors than do counselors in training who receive only live supervision?

4. Does treatment condition (BITE- no-BITE) predict counseling performance? Do increases in counseling self-efficacy and decreases in trainee anxiety add to the ability of treatment condition to predict counseling performance?

Exploratory analyses were also included, to address the following questions:

1. Do discrepancies in counselor trainees' performance ratings exist depending on the source of evaluation; trainee, supervisor, or observer? Do participants in the two experimental conditions differ in the amount of discrepancy between self ratings of performance and ratings of performance provided by supervisors and observers?

2. Do participants in the BITE condition display higher ratings of performance in supervision than participants in the no-BITE condition?

3. Finally, can a specific model of live supervision using the BITE serve to effectively increase trainees' counseling self-efficacy, and subsequently, the trainees' counseling performance?

Delimitations:

1. My study was limited to beginning masters level counselors in training, who had completed the counseling methods class and were beginning in the counseling practicum.

2. Matching of participants and data collection occurred across three semesters.

3. The supervisors who provided immediate feedback were counseling psychology doctoral graduate students from the University of North Dakota.

4. Participants counseled different types of clients who exhibited varying degrees of motivation and resistance.

5. Clients also had different levels of previous exposure to counseling, either at the clinic, or in other settings.

6. Other confounds which could not be controlled.

Assumptions

1. It was assumed that counselor trainees would give consent for participation.

2. It was assumed that clients would give consent for use of final session video tapes for analysis in the study.

3. It was assumed that all participants would complete the semester long practicum training experience.

CHAPTER 2

REVIEW OF THE LITERATURE

Immediate Feedback Using the "Bug-In-The-Ear"

A variety of terms have appeared in the literature used to refer to describe the "Bug-in-the-Ear" (BITE) technique. These include "Mechanical Third Ear (Korner & Brown, 1952), "Absentee-Cueing" (Cohn, 1973; McClure & Vriend, 1976; Vriend, 1973;), "Radio Telemetry" (Miklich, 1975), "Radio Feedback" (Tentoni & Robb, 1977), and "Electronic Preceptoring" (Ward, 1962). This process of delivering immediate feedback to the counselor trainee during live supervision involves the supervisor observing the counseling session through a one way mirror and delivering feedback to the trainee at appropriate times during the session through a microphone located inside the observation room. The microphone is connected to the trainee using various wireless or corded one way communication systems. Only the trainee hears the supervisor's feedback. The client, though generally informed about the uses for this device, is unaware of when the trainee is receiving feedback from the supervisor.

The "bug-in-the-ear": Suggested equipment. The earliest report in the social sciences literature of this technique appeared more than forty years ago. Korner & Brown (1952), described a "Mechanical Third Ear", which consisted of an ear piece worn by the trainee connected by wire to a chest microphone and amplifier. This wire was connected to an extension wire by the student which lead to the observation room.

Eventually, a miniature radio transmitter and receiver were used, eliminating the need for wires and allowing the student greater freedom of movement.

In the descriptions which follow this initial report of BITE feedback the physical apparatus used remains basically the same. Haney, Sewell, Edelstein and Sartin (1974) present a comparison of three types of BITE communication systems, all of which operate on the same general principle as the device described by Korner and Brown (1952). The three systems evaluated were commercially available systems, modified tape recorders, and adapted walkie-talkie systems. These systems were found to differ on three dimensions: cost, conveniences of use, and external interference. Commercially designed systems were the most expensive of the three, modified tape recorders were the least expensive but most restrictive in terms of limiting the trainee's range of movement, and walkie-talkie systems were found to be subject to external monitoring and/or interference by ambient radio transmissions (Haney, et. al, 1974). Other published accounts which describe similar physical equipment used to deliver immediate feedback to trainees include Pierce (1962), Ward (1962), Herold, Ramirez and Newkirk (1971), Stumphauzer (1971), Boylston and Tuma (1972), Cohn (1973), Vriend (1973), Morris, (1974), Golsan (1976), Sloat and Loganbill (1976), and Salvendy (1984).

Uses for the "bug-in-the-ear" in clinical training. The "bug-in-the-ear" (BITE) has been used for clinical training of professionals in a variety of settings. Two of the most common settings for BITE use appear to be the training and supervision of counselors (Crawford, 1993; McClure & Vriend, 1976; Mosley, 1982; Tentoni & Robb, 1977), and the training and supervision of marriage and family therapists (Alderfer, 1983; Gallant,

Thyer & Bailey, 1991; and Whiffen & Byng-Hall, 1982). Clinical psychology training programs have also used BITE feedback in training psychometricians (Korner & Brown, 1952; Sanders, 1966), and to supervise beginning trainees conducting psychotherapy with children and adolescents (Boylston & Tuma, 1972). Salvendy (1984) has used the BITE extensively in diagnostic interviews with psychiatric residents.

The technique has been applied to training in speech and hearing clinics (Brooks & Hannah, 1966; Pierce, 1961), training medical students in beginning psychotherapy (Ward, 1962), the training of group therapists (Cohn, 1973), and in teacher education (Giebelhaus, 1993). Gallant and Thyer (1989) reviewed the literature on using BITE for parental training and child behavior modification, concluding that the earphone was an integral part of training parents in dealing with their children's maladaptive behaviors.

The "bug-in-the-ear": Procedural suggestions. Korner and Brown (1952) found the third-ear device to be most useful in the supervision of projective testing techniques. Supervisors initially attempted to deliver cues during periods of silence but later discovered that students were soon able to divide their hearing between the supervisor and the patient. The number of directions given to trainees ranged from 3 to 30 per testing hour. This first report of a BITE device concluded, based on the experience of the authors, that practice with such a device increases its usefulness, and that students do not acquire an addictive dependence on the device (Korner & Brown, 1952).

Sanders (1966) offered suggestions for using the BITE in the training of clinical psychology interns. Interns conducting patient interviews received the benefit of immediate supervision using the BITE. Supervisors were able to call attention to certain

aspects of trainee interviewing techniques at the moment of their occurrence. Similar procedures were reported for using the BITE during the administration of psychodiagnostic tests. In addition to highlighting specific techniques of test administration, supervisors were able to assist trainees in dealing with difficult patients using the BITE to support and encourage the trainee during testing. In psychotherapy training, Sanders reported that the BITE is extremely valuable in focusing on trainee and patient non-verbal behaviors in session, as well as in the development of trainee therapeutic skills related to specific theoretical orientations.

Two accounts were discovered in the literature which present more detailed suggestions for specific procedures in using the BITE as an aid to the training of counselors and therapists. Although these accounts are not derived from empirical investigations, the authors support their suggestions with specific feedback from trainees and supervisors exposed to the BITE feedback system.

Cohn (1973), in his article describing an absentee-cueing system for group counselors, offers several guidelines for supervisors using this approach. Based on his work with the device, Cohn suggests:

1. The counselor and supervisor should agree on the theoretical approach to be used in the counseling process.
2. The counselor should know the goals of each segment of the counseling process.
3. The counselor should be well versed in the use of techniques.
4. There should be practice sessions to acquaint the counselor with the phraseology of terms used by the supervisor in describing techniques and pursuing goals.

5. The supervisor, in communicating with the counselor, should pay particular attention to making clear, concise and precise statements, with no qualifying adjectives or adverbs and without "rehashing".
6. In making his (sic) suggestions and recommendations, the supervisor should wait for a time when the group members are talking to each other or when they have reached the point at which the counselor can share attention between the group and the supervisor's comments.
7. The supervisor should restrict his (sic) comments, questions, and suggestions to counseling techniques.
8. The supervisor should stifle those questions or comments directed at satisfying his (sic) curiosity. (p. 62)

Whiffen and Byng-Hall (1982) describes his experiences with using the earphone in the clinical supervision of marriage and family therapists at the Tavistock Clinic in London, England. Whiffen and Byng-Hall suggests that trainees be given an opportunity to discuss their experience with the earphone and be given the right to remove it if necessary. Supervisors using the BITE technique are cautioned that the frequency of cues may need to be decreased if the trainee begins to blindly implement the supervisors comments without first translating the cues into their own words. If this "parroting" occurs, supervisors should not give any further cues or perhaps consider calling the trainee out of the session for a consultation. An additional drawback to BITE noted here is that supervisors can easily be drawn into over-functioning because interventions are so easy to make. Whiffen and Byng-Hall cautions against using the instrument too frequently or too soon, in order to leave room for the trainees to autonomously develop their own skills.

Based on his use of the earphone in supervision Whiffen and Byng-Hall put forth several dimensions along which supervisors may wish to frame their cues to the trainees during the session. These include delivering specific instructions, suggesting strategies,

drawing attention to something, offering encouragement or complimenting trainees, increasing intensity, decreasing intensity, and rescuing the trainee from the family system. He also recommends that supervisors adapt their style of using the earphone in supervision to the individual trainee, and feel that role play with this device prior to using this technique in supervision is essential. He suggests that the earphone can only provide one small part of a future clinician's training, and should thus be used in conjunction with other supervisory and educational techniques. This author concludes by adding that using the BITE is optimal with novice clinicians and with trainees who are stuck and in need of immediate feedback to learn a new way of working.

Advantages and disadvantages of the "bug-in-the-ear". Boylston and Tuma (1972), in another descriptive report of experiences using the BITE in the training of child/adolescent therapists, review several advantages and disadvantages of this unique educational device. They feel that the BITE lowers the initial encounter anxiety of the novice therapist, allowing the trainee more freedom to focus on the anxieties of the patient. They found that trainees, knowing that a supervisor is immediately available to them, experience significant support and are more relaxed, spontaneous, and communicative in their initial encounters with clients. They also found that the BITE helps the therapist to be more effective in the initial psychotherapy session and in structuring subsequent sessions.

Boylston and Tuma (1972) go on to describe additional advantages of using the BITE as a tool in clinical supervision. The immediate availability of the supervisor helps beginning therapists to deal with difficult situations which arise in session which they

might mishandle to the detriment of the patient or themselves. Citing examples from their clinical experiences with using the BITE in supervision which illustrate these advantages, Boylston and Tuma (1972) reported several other benefits: (a) BITE helps the therapist to shift stances in the session, especially when the therapist is operating under the assumption of a different diagnostic picture than may actually be indicated, (b) the Bug increases the therapist's ability to recognize his/her own contribution to the child's anxiety, allowing the trainee to respond to the child's anxiety meaningfully and immediately; and (c) metaphorical interpretation offered to the trainee via the BITE can help her/him to gain perspective on the therapeutic process and recognize the theme of the session.

Boylston and Tuma, (1972) also list several disadvantages discovered in their use of the BITE. They found that the demand for supervisory time is increased, as additional time outside of the session is needed to discuss the process of BITE use with the trainee. In addition, the trainee must have confidence in the supervisor so as to avoid following the cues delivered altogether, or implementing the cues in a robot-like manner. Another disadvantage which can potentially occur with BITE use is that of the supervisor's disruptive counter-transference reactions to the patient which can interfere with the trainees in-session supervision.

Concern is also expressed that the trainee may tend to emulate the supervisor instead of developing his or her own personal style. It was felt, however, that this disadvantage decreases and trainees become less dependent on the supervisor as the trainees become more comfortable with the therapeutic process. Boylston and Tuma

(1972) stressed the importance of trainee feedback in evaluating the usefulness of this technique. The feedback these authors received from their trainees included: (a) a tendency of the supervisor to become the therapist, e.g., some trainees reported relying too much on the supervisors and feeling that the sessions were not their own, (b) trainees felt at times that the supervisors injected unfamiliar concepts into the therapy, and (c) several trainees reported feeling that some supervisors were too quick to intervene with cues delivered in this manner, highlighting exhibitionist tendencies of the supervisors.

Salvendy (1984) combined results of a survey of psychiatric residency training programs in North America with his own experiences using the BITE in training psychiatric residents to conduct diagnostic interviews. The advantages presented in this report include; (a) the use of BITE technology makes supervision more direct and close to the reality of the "here-and-now" of the interview process; (b) allowing supervisors to be aware of the nuances of the interview' and (c) guiding and encouraging the student at crucial times. Salvendy also states that the BITE technology allows mental health specialists to foster a more empathic approach to patient interviews, believing the immediacy of the supervisor's response to the diagnostic-therapeutic process to be of paramount importance.

The potential disadvantages discovered in this survey (Salvendy, 1984) include the interviewer's fear of losing control of the interview or becoming dependent on the supervisor, the interviewer not being able to learn from the experience, the demands on the supervisor's time, and the potential for patient distraction. Salvendy reports that, contrary to the findings of his survey of American and Canadian psychiatric residency

training programs, supervisors and students under his direction have not found that residents become dependent on their supervisors in using this technique, and no noticeable distractions occurred for the patients.

In a literature review conducted on the use of the bug-in-the-ear in clinical supervision, Gallant and Thayer (1989) concluded that the BITE is one of the most valuable tools for training therapists to work with families. In addition, they note that the BITE system has received favorable reports as a tool for clinical supervision by researchers in psychiatry, psychology, counseling, speech therapy, and marriage and family therapy. The use of this technique for supervision and training has also steadily increased in Europe. The earliest accounts of the procedures used to deliver in session feedback are descriptive in nature. It was not until nearly 25 years after the first publications of the BITE procedure that the first empirical investigation of the procedures for using this technique as a tool for clinical supervision was conducted (McClure and Vriend, 1976).

"Bug-in-the-ear" procedures: Empirical investigation. Twenty-four years after the first published account of the use of the BITE technology (Koyner and Brown, 1952), the first empirical investigation of specific procedures for using this training device appeared in the literature (McClure and Vriend, 1976). This account, based on the first author's doctoral dissertation (McClure, 1973), presents an extensive analysis of the process for in-session cueing of trainees in a counseling practicum utilizing a live supervision context. Fourteen counselors were cued by a counselor trainer using a wireless microphone. Each trainee was exposed to six sessions using this system of

immediate feedback. Data from the resulting 84 sessions was analyzed in terms of cue frequency, length, and formulation, trainee resistance to or dependency on cues, affect of cueing on clients, and effectiveness of cues from trainers of differing supervisory styles. The issues addressed in this investigation were based on descriptive reports in the literature which suggested specific procedures for using absentee-cueing.

A specific protocol for training counselors using an absentee-cueing system was developed through two separate pilot studies conducted prior to the formal investigation. This protocol included specific instructions for the trainers (supervisors) and trainees to follow when using the absentee-cueing system. It was determined that trainers would deliver cues during silent periods in the session, or when the client was talking. When cues were delivered while the clients were talking, trainees unable to absorb the simultaneous communications of the client and trainer were instructed to attend to the trainer's intervention and then to ask the client to summarize what had been said. The participants used in this study were masters' degree students in counselor education participating in a regular counselor training practicum with actual counseling center clients. Participants were assigned to one of three treatment groups according to the length of cues to be employed; abbreviated cues only, extended cues only, and a combination of abbreviated and extended cues. In addition, an elaborate training schedule was developed for use with the trainees in the combined length of cues condition incorporating random combinations of cue length, trainer vs. trainee phrased cues, and visibility/explanation of the absentee cueing system to clients.

Upon completion of each counseling session using the absentee cueing system, trainees were administered the Trainee Value of Cues Scale (TVCS; McClure and Vriend, 1976), an instrument developed by the authors for use in this study. The TVCS gathered data from the trainees regarding the timing of trainer interventions, length and formulation of cues, and the frequency of interventions. Trainees were also asked to write out as many of the cues given during the session as accurately as possible. Finally, respondents were asked to estimate the total number of cues received and to describe the behavior of the client in relation to the cues implemented in the session.

A Trainer's Log, also developed for use in this study (McClure and Vriend, 1976) was completed by the trainers following each counseling session using the absentee cueing system. Using this log, trainers were required to rate the effectiveness of the cues delivered during each session. Dimensions addressed included types of cues, ability of trainees to translate various types of cues to clients, amount and nature of trainee resistance or dependence on cues observed, and affects of cues on clients during the session.

The results of this investigation (McClure and Vriend, 1976) contradicted many of the narrative reports previously published which offered specific suggestions for the procedures involved in using this type of immediate feedback system in counselor training (e.g., Boylston & Tuma, 1972; Korner & Brown, 1952). Analysis of data collected in this investigation clearly indicated both abbreviated and extended cues were effective. Trainees were able to incorporate brief cues and extended cues with equal facility, though results showed that more care in timing insertions of extended cues was

required, while brief cues could be delivered at any time. All participants in this study agreed that the length of cues was relatively unimportant. Cues delivered to the trainee ranged from consisting of a few words to cues exceeding 30 seconds in length.

Regardless of length, all cues were effectively translated to the client.

Findings regarding the formulation of cues were less conclusive. Participants reported that trainer-phrased cues, those cues which were to be repeated verbatim to the client, were more helpful during the early portion of the training experience. Trainees reported that cues used by the trainers which had no imperative regarding verbal exchanges with the client were perceived as particularly helpful. These cues were more suggestive in nature, often beginning with "You may want to..... " etc.

Additional conclusions of this investigation contradicted earlier suggestions regarding the frequency of cues. The researchers found the participants did not perceive the frequency of cues as a factor in determining the effectiveness of the absentee-cueing system. In fact, in some instances, as many as fifty cues were given and incorporated effectively by the trainees during sessions.

Data from this investigation also revealed no important reluctance or resistance to the absentee-cueing. The authors attributed this lack of resistance to the comprehensive orientation to the cueing system which addressed trainee's concerns. Adverse effects on clients in response to the use of the absentee-cueing system were also found to be almost negligible. Of the 84 sessions analyzed, only 5 were reported by trainees where clients seemed inhibited by the presence of the system. These five accounts were not corroborated by reports in the Trainer Logs, which were completed by the supervisors.

The authors concluded that whether or not the clients were exposed to the physical components of the system and the presence or absence of an explanation for the system's use made no difference in the counseling process.

McClure and Vriend (1976) report the principal conclusion reached in this study is that the absentee-cueing system is a viable and extremely useful technological counselor training aid which has many advantages when judiciously employed. In addition, the authors list specific conclusions regarding this adjunct to training. They believe that the absentee-cueing system (BITE): "1) heightens supervisory involvement; 2) allows for effective immediate reinforcement of positive trainee behaviors; 3) closes the distance between trainee-felt incompetency and trainer expertise as both endeavor to help a client together; 4) is an excellent means of helping trainees to work on particular counseling skills and 5) can be used with particular trainees and/or clients at particular times for particular purposes" (McClure and Vriend, 1976, p. 125).

Empirical investigations on the effectiveness of BITE feedback. A thorough search of the published literature and Dissertation Abstracts International uncovered a total of seven experimental studies which attempted to evaluate the effectiveness of the BITE feedback system in counselor training. The first of these to appear in the literature (Reddy, 1969) involved a study of 36 counselor trainees, who were instructed to respond empathically at pre-determined junctures in simulated psychotherapy films. Responses were rated on a five point empathy scale. An immediate feedback group heard an empathy rating for each of their responses along with an example of a highly rated response for that segment through the BITE. A delayed feedback group received

feedback on their performance after the films, and a third group of participants received no feedback. Measures of empathy were taken pre and post instruction on the use of empathic responses.

Analyses revealed that a significantly higher level of empathy was displayed by the trainees who received immediate feedback via the BITE. The range of counseling skills in the Reddy (1969) study was limited to empathic reflection. In addition, this study was completed in an analogue environment, as the counselor trainees who served as participants were responding to films rather than actual, or even simulated, counseling sessions.

Carlson (1974) also evaluated the effectiveness of using BITE feedback to increase levels of empathic responding among masters level counselor trainees. Results of this study were also significant, in that trainees who received immediate feedback during role plays consisting of reinforcement and instructions displayed higher levels of empathic responding than did the trainees who received reinforcement only and those who received no feedback (controls).

Gallant, Thyer, and Bailey (1991) describe three single-subject studies evaluating the efficacy of BITE feedback in promoting the therapist behaviors of facilitation and support in the training of marriage and family therapists. They discovered, through the use of multiple-baseline designs along with prompting and immediate reinforcement of desired behaviors, that BITE feedback can produce specific and immediate improvements in therapists' clinical skills. These authors also reported that their single system studies provided evidence that BITE feedback produces relatively immediate and obvious effects

in altering therapist behaviors specific to the behaviors that such feedback is made contingent upon.

The four remaining investigations in this arena of research (Crawford, 1993; Golsan, 1976; Mosley, 1982; Tentoni and Robb, 1977) have attempted to establish empirical support for using the BITE to increase counselor trainee effectiveness by measuring a range of specific counselor behaviors which extended beyond empathic responding. The results of these investigations, however, are incongruent. This may in part be accounted for by the methodological designs selected by the investigators.

The most promising results which support the use of BITE to increase overall counselor effectiveness appear to have been generated by an investigation conducted by Tentoni and Robb (1977). These authors conducted a study using masters level counselor trainees in practicum classes seeing actual clients as participants. One group of counselor trainees received immediate radio feedback during counseling sessions, with another group of trainees serving as controls who received traditional delayed feedback.

Although overall counseling effectiveness of trainees served as the dependent variable in this study, the authors restricted the use of the feedback delivered to trainees in session via the BITE to immediate reinforcement (the spoken word "good") when trainees correctly perceived their clients emotions and communicated their perceptions to clients during the session.

Tentoni and Robb (1977) designed their study to evaluate general counseling behaviors as an outcome of treatment effectiveness using the BITE. Counselor behaviors were measured pre (4th session in practicum) and post (13th session) using the items

dealing specifically with counseling behaviors on the Counselor Evaluation Rating Scale (CERS; Myrick and Kelly, 1971). Although the feedback delivered to trainees with the BITE was limited to positive reinforcement of appropriate behaviors, comparison of counseling effectiveness scores found the experimental participants scored significantly higher than the control participants. The effect of using immediate feedback to target other in-session trainee behaviors was not addressed in this investigation.

In a study similar to Tentoni and Robb (1977), Golsan (1976) compared changes in counseling performance of trainees who experienced direct supervisory intervention through the BITE with trainees who did not experience direct supervisory intervention. The type of feedback used with the BITE in this study was left to the discretion of the supervisors and may have varied across trainees. Feedback used by supervisors included short reinforcing statements (most frequently used type of feedback), controlling the pace of trainee responses to the client, modeling appropriate statements, and suggesting directions for trainees.

The measures of counseling performance used in this study (Golsan, 1976) were the Counselor Evaluation Rating Scale (CERS; Myrick & Kelly, 1971), and the Carkhuff Scales of Interpersonal Functioning (Carkhuff, 1969). These measures were compared from pre to post (after six sessions). The BITE was found to influence trainees' performance of four of the Carkhuff scales; empathy, concreteness, confrontation, and immediacy. No significant differences were obtained in trainees' scores on the CERS. The analyses were conducted using the Mann-Whitney U test of statistical significance

comparing trainee pre and post rankings on the dependent measures. Golsan (1976) concluded that the BITE aided in counselor trainee growth.

Mosley (1982) compared the effectiveness of three types of supervisory feedback administered using BITE. Counselor trainees were randomly assigned to one of three feedback conditions: (1) simple reinforcement; (2) directions or observations; and (3) reinforcement and directions or observations. A no-treatment control group was not included in this study. This is the only study which assesses the impact of the BITE on counseling outcome as measured by clients' self-ratings of change in addition to evaluating trainee behaviors. Clients completed a checklist based on Dymond's (1954) Q-Sort measure of maladjustment. Clients and counselor trainees both completed the Counselor Evaluation Inventory (Linden, Stone, and Shertzer, 1965), and the Session Evaluation Questionnaire (Stiles, 1980) for four different sessions over the course of counseling. Bugged sessions were spread throughout the course of counseling, and two bugged and two non-bugged sessions were rated for each counselor trainee.

Analysis of Q-Sort (Dymond, 1954) maladjustment scores obtained from clients pre and post counseling failed to yield significant differences for the three counselor trainee feedback conditions. There were no significant differences in counselor effectiveness between conditions as measured by the Counselor Evaluation Inventory. Significant differences were found, however, between feedback conditions as measured by administration of the final Session Evaluation Questionnaire. Feedback conditions with directions or observations resulted in significantly higher ratings here than did the simple reinforcement condition.

Crawford (1993) evaluated trainees' perceptions of the effectiveness of supervision styles, comparing two types of BITE feedback with traditional videotaped review. This author reports that trainees perceived in-session feedback as more effective than post-session video-taped review, but found no significant differences in perceived effectiveness between BITE feedback directed at specific counseling skills and BITE feedback addressing global client conceptualization. The lack of differences in feedback presentation may be explained by the subjective vs. objective evaluative focus of the study, or the fact that measures of the trainees' perceptions were adapted from related measures for the purpose of this study, calling in to question the validity of the instruments.

Related procedures for delivering in-session feedback. Dowd and Blocher (1974) designed an alternative procedure for delivering immediate feedback to trainees. These authors conducted an investigation of the effects of immediate reinforcement and awareness of response class on trainees' ability to display complex verbal behaviors during counseling sessions. Sixteen beginning graduate level counselor trainees served as participants in this study, and undergraduate student volunteers served as clients. Seven counseling sessions were conducted in interview rooms equipped with one-way mirrors, allowing for live observations by the experimenter. Reinforcement was delivered to the trainees in the appropriate experimental conditions via a reinforcement box containing a red and a green light.

Participants (counselor trainees) assigned to two of the experimental conditions (reinforcement without prior knowledge of target behavior, reinforcement with prior

knowledge of target behavior) were reinforced for making statements categorized as relationship-speculative, personal-confrontive, and relationship-confrontive (Hill, 1971). The reinforcement box was placed on a table between the client and the counselor, with the lights on the reinforcement box visible to the counselor only. The red light was flashed when the trainee exhibited the desired behavior during the interview, and the green light was flashed during the session when the trainee approximated the desired response. In this manner, both immediate reinforcement and shaping of behavior were provided for.

Results of this investigation supported the initial hypothesis that the largest amount of conditioning effect will occur when awareness is combined with immediate reinforcement of desired behavior. The effect of reinforcement with awareness was found to be greater than the effect of either alone. These results suggest that immediate reinforcement when combined with awareness can lead to an increase in the exhibition of desired complex counseling behaviors.

Klitzke and Lombardo (1991) described an alternative to bug-in-the-ear which provides visual on-line feedback for therapist skill training. This device, referred to as "bug-in-the-eye", is a teleprompter technique for providing immediate feedback to the trainee during the counseling session. This system is described as resembling broadcast journalism teleprompters. Using the "bug-in-the-eye" technique, supervisors key in messages on a computer keyboard. Instructions to the trainee then appear on an additional monitor inside the therapy room directly above the client, where they can be reviewed at appropriate times by the trainee.

Klitzke and Lombardo (1991) indicated that the bug-in-the-eye system offers the same benefits as the bug-in-the-ear system, with fewer drawbacks to clinical use. These authors reported that utilizing visual technology offers several advantages over previously employed auditory technology in providing immediate feedback to trainees during the counseling session. They believe that their bug-in-the-eye system minimizes trainee distraction and timing limitations, and permits longer messages and listing of points for the trainee to consider.

Summary. Although a number of descriptive reports regarding bug-in-the-ear have appeared in the literature since 1952, substantially fewer empirical investigations of the technique for providing immediate feedback to counselor trainees have been conducted. The methodology and results of the seven studies reviewed here which tested the effectiveness of the BITE are shown in Table 1.

In sum, several conclusions of this literature review on the use of BITE feedback can be drawn. All of the earliest published accounts, though descriptive in nature, report that the BITE is an extremely powerful and effective tool for supervision and counselor education and emphasize a general sense of satisfaction in using the BITE in counselor training. The most common advantage in using the BITE discussed by authors of the reports reviewed here appears to be the magnitude of the learning potential for trainees who use this system. Specific facets of the BITE which maximize the trainee's learning potential include the immediate availability of the supervisor to the trainee and the immediacy of the feedback received by the trainee, as compared to more traditional forms of supervision which are retrospective in nature (Boylston and Tuma, 1972; Korner and

Brown, 1952; McClure and Vriend, 1976; Salvendy, 1984; and Tentoni and Robb, 1977).

The relatively few empirical studies evaluating the use of this technique have generated inconclusive results regarding the nature of its effectiveness. The limitations of these studies, specifically the analogue design employed in many, further contribute to the lack of consensus among the study findings.

Counseling Self-Efficacy

Tenets of self-efficacy theory. Bandura (1977) proposed a theoretical framework to explain and predict psychological changes. His self-efficacy theory attempts to explain how changes in behavior result from different modes of treatment. In this approach, successful performance replaces symbolically based experiences as the principle vehicle of behavior change, with the notion that successful performance accomplishments achieved by different means stem from a common cognitive mechanism. This cognitive mechanism can be defined as consisting of two sets of related cognitive processes referred to as efficacy expectations and outcome expectations.

Although efficacy and outcome expectations are related, important distinctions between the two have been made. Outcome expectations refer to the degree of a person's expectation that a specific behavior or set of behaviors will lead to specific outcomes. An efficacy expectation, then, is defined as "the conviction that one can successfully execute the behavior required to produce the outcomes" (Bandura, 1977, p.192). This distinction between outcome and efficacy expectations is important because people may have the sense that a certain outcome can be obtained by performing certain behaviors. If individuals are unsure about whether or not they can actually perform these behaviors

Table 1. Empirical Investigations on the Effectiveness of “Bug-in-the-Ear” Feedback

<u>Investigator</u>	<u>Subjects</u>	<u>Outcome Examined</u>	<u>Setting</u>	<u>BITE Feedback</u>	<u>Outcome Measure</u>	<u>Findings</u>
Reddy (1969)	36 counselor trainees	Empathic responding	Analogue	Rating of subject response and example of highly rated response	Five point empathic response scale (derived from Truax 1961 Empathic response scale)	Analysis of pre and post measures showed statistically significant higher level of empathic responding displayed by immediate feedback group as compared to delayed feedback group and controls
Carlson (1974)	24 masters level counselors	Empathic responding	Natural (actual counseling sessions)	“Excellent response” vs. random BITE communication of feedback and instructions vs. BITE with no feedback	Judges ratings of empathic responding from session tapes using Carkhuff’s rating scales	Analysis of pre and post measures showed statistically significant differences between all three groups, with instructions and feedback group scoring highest on post empathy measures, followed by positive reinforcement group. All 3 groups, showed pre-post improvements in empathic responding.
Gallant, Thyer, & Bailey (1991)	4 Ph.D. trainees	Specific counseling behaviors (facilitation and support)	University marriage and family therapy center	BITE prompting and reinforcement for use of supportive and facilitative behaviors	Frequency of desired behaviors measured at baseline and treatment (single subject multiple baseline design)	Authors conclude that consistent use of BITE feedback promotes trainee’s use of supportive and facilitative behaviors
Tentoni and Robb (1977)	20 masters level counselor trainees	In session counseling behaviors as outcome of treatment effectiveness	Counseling practicum (actual counseling sessions)	The spoken word “good” as immediate reinforcement	Counselor Evaluation Rating Scale (Myrick & Kelly, 1971) revised, pre and post	BITE group showed significantly higher levels of counseling effectiveness than did controls, as measured by CERS

Table 1 cont.

Mosley (1982)	49 masters, specialist, and doctoral level students	Client change, counselor skills, session impact	Volunteer clients	Reinforcement vs. directions or observations vs. reinforcement <u>and</u> directions or observations	Q-Sort (Dymond, 1954), Counselor Evaluation Inventory (Linden, Stone & Schertzer), & Session Evaluation Questionnaire (1980)	No significant differences in client adjustment between groups were found. No significant differences between conditions on the Counselor Evaluation Inventory. Feedback condition with directions or observations resulted in significantly higher ratings on final Session Evaluation Questionnaire
Crawford (1993)	59 masters students enrolled in prepracticum or introductory counseling classes	Trainees' perceived effectiveness of supervision styles	counseling laboratory	BITE feedback for cues on specific counseling skills vs. BITE feedback for global client conceptual issues vs. no BITE (review)	4 Likert scales used to measure effectiveness on dimensions of credibility, desirability, impact and helpfulness	Results indicated that trainees perceived in-session BITE feedback more effective than supervision with delayed video tape review. No significant differences in perceived effectiveness between global and specific BITE directives
Golsan (1976)	Graduate students in counseling, psychology, and guidance	general and higher level counseling skills	counseling practicum	cues for reinforcement, pace of trainee responses, model appropriate responses, suggesting direction	CERS, Carkhuff Scales of Interpersonal Functioning	No differences between groups on the CERS. BITE group higher on 4 Carkhuff Scales: empathy, concreteness, confrontation, and immediacy

however, outcome expectations do not influence their behavior. According to self-efficacy theory, both outcome expectations and efficacy expectations are required before an individual's behavior can change. Figure 1 further illustrates the difference between outcome expectations and efficacy expectations.

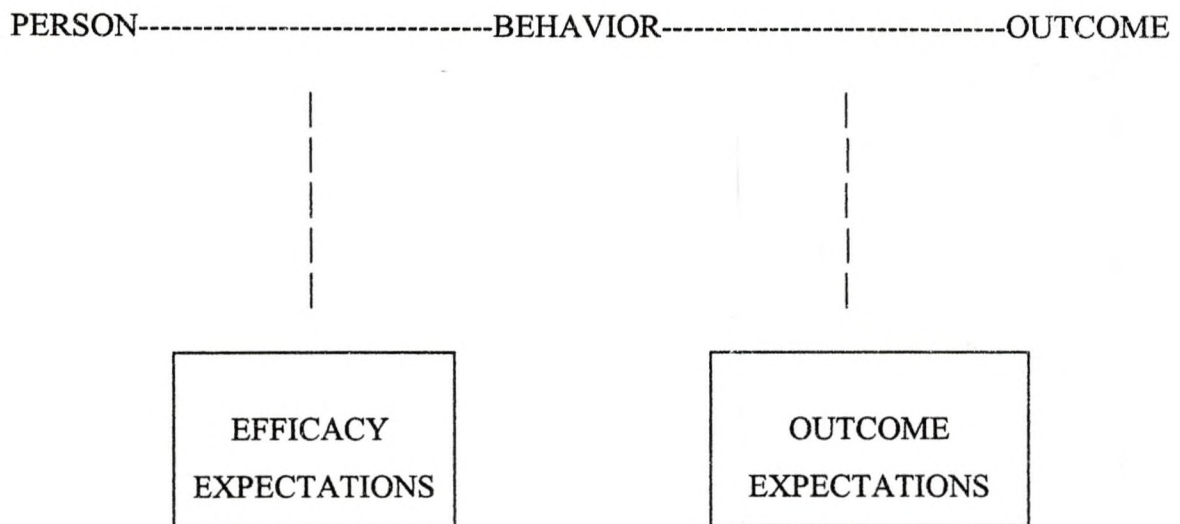


Figure 1. Efficacy and Outcome expectations. (Bandura, 1977, p 193).

Efficacy expectations are crucial to the essence of this theory. These expectations determine whether the behavior will be initiated, how much effort will be put forth by the individual, and the amount of time the behavior will be maintained when obstacles and aversive experiences are encountered. Bandura (1982) further breaks down the construct of efficacy expectations into the dimensions of level or magnitude of expectation, and the strength of efficacy expectation.

Bandura's (1977; 1982; 1986) model proposes that efficacy expectations are stronger than outcome expectations, in that efficacy expectations are better predictors of behavior, because outcome expectations are based upon efficacy expectations. In application of self-efficacy theory to counseling behavior, for example, the counselor's expectations regarding the consequence of a specific counseling behavior displayed in the counseling session (outcome expectation) will be largely determined by degree to which the counselor believes s/he will be able to perform that behavior.

The postulate that efficacy expectations serve as the best predictor of behavior has yet to be empirically confirmed by independent investigators. Support for this hypothesis was offered by a study which examined the differences between efficacy expectations and outcome expectations in predicting counseling outcome (Reese, 1993). Reese (1993) found efficacy expectations and outcome expectations for counseling outcome to be very highly correlated ($r=.94$), and concluded that outcome expectations did not add to the prediction of behavior beyond the variance in counseling outcome which was accounted for by efficacy expectations. Results of an earlier study by Maddux, Shere, and Rogers (1982), however, present a contradiction to Bandura's (1977) contention that outcome expectations add little to the predictive power of efficacy expectations. Both of these investigations were conducted in artificial settings, which may fail to capture the essence of accurate efficacy expectations. Clearly, this area of self-efficacy theory warrants further empirical clarification.

Perhaps the most crucial aspect of this social learning analysis of self-efficacy theory as it relates to the current investigation has to do with the proposed dimensions of

efficacy expectations. Bandura hypothesized that individuals base their sense of personal self-efficacy on four major sources of information: performance accomplishments, vicarious experience, verbal persuasions, and emotional arousal. Each of these sources of efficacy information will be briefly discussed and then summarized in terms of their relationship to the design and hypotheses of the present investigation.

Performance accomplishments are believed to be induced by participant modeling, performance desensitization and exposure, and self-instructed performance. Bandura (1982) suggested that performance accomplishments are the most powerful influences on an individual's perceptions of self-efficacy, because they are based on personal mastery experiences, with successful performance accomplishments raising mastery expectations, and failed performance accomplishments lowering them.

Vicarious experiences, influenced by live and symbolic modeling, provide an additional source of influence concerning a person's level of self-efficacy. Watching others perform threatening behaviors is believed to persuade people that if others can successfully carry out the threatening behaviors, they should be able to achieve at least some improvement in their own performance of that threatening behavior (Bandura & Barab, 1973). Vicarious experiences are likely to be weaker and more vulnerable to change because they rely on inferences from social comparison. Efficacy expectations generated through vicarious experiences are less dependable than efficacy expectations generated through successful performance accomplishments.

Verbal persuasion serves as another source of influence in the individual's development of efficacy expectations. The availability of verbal persuasion offers

individuals another source of input regarding the formulation of efficacy expectations. This occurs through suggestion, self-instruction, and interpretive treatments. Verbal persuasion, or simply telling people what to expect, is also less effective in generating expectations of self-efficacy than experiences based on personal mastery.

A final influence of efficacy expectation as postulated by Bandura's self-efficacy theory is emotional arousal. Bandura suggested people base their perceptions of anxiety and vulnerability to stress on their current level of physiological arousal, with high arousal believed to impede performance. Self-efficacy expectations, then, would be higher when individuals experience low levels of autonomic arousal and visceral agitation. Bandura suggests that an individual's perception of their own arousal when facing threatening behavior can be influenced through attribution, relaxation and biofeedback, and symbolic exposure and desensitization.

Counseling self-efficacy and counseling performance. Sipps, Sudgen, and Faiver (1988) examined the relationship between graduate training level and counselor trainees' self-efficacy and outcome expectations, linking those expectations to verbal response type. Seventy-eight trainees enrolled in graduate counseling programs at two midwestern universities participated in the study. Participants were divided into groups according to first, second, third, or fourth year of graduate training. This study used a video tape of a counseling session as a standard stimulus, with participants instructed to make a response from a required response category after each of 19 video-taped segments of a mock counseling session. The response type categories included minimal encourager,

information, probe, restatement, reflection, self-disclosure, interpretation, and confrontation.

After responding to each segment of the video-tape, participants completed one outcome expectation item and one efficacy expectation item, both of which were direct questions posed to participants about their expectations for their responses to lead to the desired outcome, and their expectations about the likelihood of following through on the original response. A level of graduate training (4) by type of response (8) factorial design was used to evaluate the differences in outcome and efficacy expectations between the groups. An estimate of the number of clients seen by each participant prior to participating in the study was covaried to control for the effects of prior counseling experience.

Results showed several significant main effects occurred with respect to the differences between groups. These included main effects for both level of graduate training and response category on efficacy expectations and outcome expectations. No significant interaction effects were found in these analyses. Efficacy expectations for second year students were found to be significantly lower than those of first, third, or fourth year graduate students. In addition, first year student were shown to have lower efficacy expectations than third or fourth year students. Outcome expectations of fourth year graduate students were significantly higher than were those of first and second year students.

Post-hoc analyses for expectations for response type revealed that trainees felt they would be more likely to follow through (efficacy expectations) on their original

reflection responses, as compared to either interpretation or self-disclosure responses. Participants also perceived their interpretation responses to be significantly less likely to achieve the desired outcomes than their restatement or probe responses (outcome expectations). In general, students expressed greater confidence in making reflections and probes than they did in making interpretations, regardless of year of graduate training.

Though results of this study are promising, it is important to note that Sipps, et al. did not compare the relationship between efficacy and outcome expectations for specific counseling behaviors with objective measures of outcome and counseling skill. Also, the design of this study did not include the variable of client contact, but instead used a simulated counseling situation produced on videotape as a stimulus for participant participation. Contact with actual clients is an important part of counselor training programs, and removing this influence does not allow for adequate representation of the level of graduate training employed as an important independent variable in this study. One of the main tenets of self-efficacy theory is that the actual performing of the desired behavior is the largest influence on the perceptions of an individual's self-efficacy for that behavior (Bandura, (1982).

Johnson, Baker, Kopala, Kiselica and Thompson (1989) conducted a study on counseling self-efficacy which appears to be more closely aligned with self-efficacy theory. These authors examined the relationship between counseling self-efficacy and counseling skills in 50 graduate trainees in a masters level prepracticum class. Johnson and colleagues (1989) sought to assess the relationship between efficacy expectations and

the quality of counseling skill performance. These authors also hypothesized that experience as a client (receiving counseling) would facilitate the development of self-efficacy.

Using self-efficacy strength as a pre-test covariate and receiving personal counseling as a treatment variable, these authors divided the participants into four groups: participants with low self-efficacy at pretest who did not receive counseling (LNC); participants with high self-efficacy at pretest who did not receive counseling (HNC); participants with low self-efficacy who did receive counseling (LC); and participants with high self-efficacy who received counseling (HC). Participants receiving counseling were told that the counseling was part of the course work but would be ungraded, and could deal with issues of their choice. Participants in this study were counseled by first year doctoral students in counseling psychology.

Self-efficacy measures were achieved using the Counselor Self-Efficacy Scale (Johnson, et al.), which was specifically designed by the authors for the purposes of this study. This instrument measures two aspects of counseling efficacy: level and strength. Level of self-efficacy refers to the number of behaviors from a list of 26 counseling skills that participants indicated they could perform. Strength of self-efficacy refers to the degree of confidence participants placed in their ability to perform those counseling behaviors. The authors present favorable measures of internal consistency for this instrument from study, with test-retest correlations of .78 for level and .88 for strength, and alpha coefficients of .95 for the first administration and .97 for the second.

Participant self-efficacy measures were taken at pre-training, after training in basic skills (post-training 1), and after training in intermediate skills (post-training 2). Efficacy measurements at both post-training points were achieved by having participants complete the Counselor Self-Efficacy Scale immediately prior to videotaped role plays conducted at each post-training point. The role plays were conducted following each training period, with the same client paired with each participant during both role plays. Immediately following each role play, students again completed the efficacy measure as a means of assessing their efficacy expectations for counseling a real client in the future.

Johnson et al. used two measures of counseling skill performance. The Responding Proficiency Index (Baker, Scofield, Munson, & Clayton, 1983) assesses competence in basic skills such as paraphrases and open questions by categorizing all counselor verbal leads except minimal encouragers. The Challenging Skills Rating Form, developed by Johnson, et al. for use in this study evaluates the use of "higher-order" skills of advanced accurate empathy, self-disclosure, confrontation, immediacy, and information giving. This instrument was modeled after the Counselor Behavior Evaluation Form (Wallace, Horan, Baker, & Hudson, 1975). Higher scores on both of these outcome measures indicate greater performance of desired counseling skills.

Results of this investigation showed that all four groups of participants displayed significant increases in efficacy expectations following training, with efficacy ratings of student participants in the high self-efficacy conditions higher than efficacy scores for student participants in the low self-efficacy conditions at each point of assessment. Participants in the high initial efficacy conditions increased in efficacy strength at the first

post-training assessment while participants in the low initial efficacy condition increased in efficacy expectations at both post-training assessments. For all participants, efficacy for counseling an actual client did not differ significantly from the efficacy for the role-plays at either post-training assessment.

In regards to measures of counseling skill, Johnson et al. found that students with low efficacy prior to training received significantly lower counseling skill ratings than students with high pre-training efficacy. After training no significant differences were detected between students' efficacy expectations and ratings of their counseling skills. In contrast to the authors' original hypothesis, a counseling vs. no-counseling effect was not found, indicating that experience as a client did not affect counselor self-efficacy.

The settings in which the Sipps, et al. and Johnson, et al. studies have been conducted may limit the ability of these investigations to reflect the true nature of the relationship between counseling self-efficacy and the performance of desired counseling behaviors. By employing an analogue design, it would appear that the study by Sipps et al. may not accurately reflect the spirit of self-efficacy theory. Johnson et. al.'s use of videotaped role plays as a setting for the measurement of counselor behaviors more closely approximates a naturalistic counseling environment, but may still fail to address important influential factors specific to a realistic counseling relationship crucial to assessing the construct of counselor self-efficacy. Another important potential limitation of both of these studies (Sipps, et al, 1988; Johnson, et al., 1989) is that the self-efficacy measures used in both cases were designed for the purposes of the studies. These

measures of self-efficacy had minimal validity and reliability information to substantiate their use.

These two limitations inspired an attempt to develop a reliable and valid measure of counselor trainees' judgments of their capabilities to counsel successfully in actual counseling situations, or their expectancies for success in actual counseling situations. Five studies were conducted which provide information on the development and validation of the Counseling Self-Estimate Inventory (Larson, Suzuki, Gillespie, Potenza, Bechtel, & Toulouse, 1992). The instrument is thus named because the authors expanded Bandura's (1982) definition of self-efficacy as a strict reference of micro-behaviors to include additional salient counseling activities and to capture some of the interactive nature of the counseling session (Larson, et al, 1992).

The Counseling Self-Estimate Inventory (COSE: Larson, et al., 1992) was developed and normed on master's level counselor trainees who had completed their prepracticum course work in counseling methods and were about to counsel their first real client in a counseling practicum. This is in contrast to the study by Johnson, et al. (1989), who designed the Counseling Self-Efficacy Scale (1989) for use with students prior to and during initial training received in an introductory prepracticum counseling methods course.

In addition to establishing reliability and validity of the COSE, the test developers also report studies which demonstrate that this instrument is sensitive to change across counseling professionals with level of training, years of experience, semesters of supervision, gender and theoretical orientation used to differentiate between counseling

professionals. Larson et al, administered the COSE to a group of 213 participants representing counseling trainees with a bachelors degree, masters degree counselors, and doctoral level counseling psychologists. They found that the counseling trainees scored significantly lower on the COSE than either the masters degree counselors or the doctoral level counseling psychologists.

This study also examined differences in COSE scores according to years of experience, with participants who had either two to eight years of counseling experience or nine to 39 years of counseling experience being more likely than those participants who had no counseling experience to indicate stronger precepts of counseling self-efficacy.

Larson, et al. also reported that subsets of participants who had received one to three semesters, four to six semesters, and seven to 17 semesters of supervision each reported significantly stronger precepts of counseling self-efficacy than did participants who had not been supervised. Finally, no significant differences in counseling self-efficacy were detected between participants grouped according to gender or theoretical orientation.

In an examination of the relationship between self-efficacy as measured by the COSE and outcome expectations and skill performance, Larson et al. reported that although students' COSE scores before and after a mock counseling interview did not change, COSE scores were positively correlated with a measure of mock interview outcome expectations ($r=.75$) and a measure of satisfaction with course performance ($r=.55$). In additional support of self-efficacy theory, COSE total pretest scores and trait

anxiety significantly predicted counseling performance, accounting for 26% of the variance in participants scores on the performance measures.

In one final study with the COSE, Larson, et al. (1992) attempted to show that COSE scores would increase over the course of a semester of masters' practicum. Live supervision was provided to counselor trainees during the practicum experience. This increase was expected because of the inherent aspects of the counseling practicum which resembled many of the central tents of self-efficacy theory, namely, exposure to performance accomplishments (counseling clients), vicarious learning (observing others counsel clients), and verbal persuasion (supervision). Due to the low number of participants used in this study no statistical analyses were performed. The authors do report a mean increase in COSE scores from beginning to the end of practicum of 30.4 points, or 1.4 standard deviations.

Since the publication of the landmark article entitled "Self-Efficacy Mechanism in Human Agency" (Bandura, 1982) the concept of counseling self-efficacy has been investigated in a number of doctoral dissertations in counseling psychology. Most recently Reese (1993) examined the influence of counselor self-efficacy, experience, and gender on counseling response quality and counseling response type. 171 participants with varying degrees of experience wrote responses to client stimulus statements from a simulated counseling session. Response efficacy and outcome expectations for each response were rated, and participants completed two measures of counseling self-efficacy.

Findings of the Reese (1993) investigation indicated that women received higher response quality ratings than men. Counselors with moderate experience received higher counseling response quality scores than did counselors at low and high levels of experience, and were more accurate in their beliefs about their ability to perform counseling skills and to respond to clients effectively. Also, gender, experience, and general counseling skill efficacy significantly predicted counseling response quality. In this study, response quality was used as measure of counseling performance. Therefore, only the content of the participants' verbal responses were examined. Possible influential counseling process variables related to non-verbal counselor behaviors were not included in this investigation.

Watson (1992) examined differences between counseling self-efficacy, amount of training, and counseling competence between counseling and clergy students in training. Results showed significant differences between the clergy and counseling groups of students on counseling self-efficacy strength and counseling competence, with counseling students scoring higher. Watson also reported that counseling self-efficacy strength and level was best predicted by counseling related course work attained, and counseling related experience was retained as a significant predictor of counseling self-efficacy strength.

Further support for the relationship between counseling self-efficacy and counseling performance has been found in similarly designed analogue studies. Dunnewold (1982) reports a positive relationship between self-efficacy and client ratings of counselor expertness. In a similar study, Rezek (1994) found that counselor trainees in

a beginning counseling methods course showed increases in their beliefs of their abilities to perform counseling skills. Increases in skill ratings were found to be related to increases in self-efficacy, and to the occurrence of certain types of inner experiences. Finally, Salmi (1992), reports a positive correlation between counselor self-efficacy and self-ratings of performance.

Constructs related to self-efficacy and counseling skill performance. Prior to the development of Bandura's self-efficacy theory, certain counselor characteristics related to self-efficacy were examined for their relationship to counseling skill performance. These include the counselor characteristics of self-esteem, self-actualization and self-confidence. Although Bandura (1984; 1986) argues that such trait-oriented constructs are general and too removed from behavior to be strong predictors of behavior change, he does contend that these constructs are related to self-efficacy. A brief mention of research reports in this area is included for the purpose of highlighting the relationship between counselor characteristics related to self-efficacy and counseling skill performance.

McClure (1973), in his empirical investigation of the specific procedures for using the bug-in-the-ear in counselor training, also measured participants' levels of self-actualization prior to training with the bug-in-the-ear, and again after training. McClure (1973) found that all trainees were considered self-actualized. Increases in self-actualization was reported for all participants. Although these differences were not significant, McClure concluded that the bug-in-the-ear produced no deleterious effects on trainees' levels of self-actualization.

Two investigations (Lin, 1973; Maskin, 1974) compared client ratings of counselor competence with different levels of counselor self-reported estimates of self-confidence. Both of these investigations report findings which indicated that clients perceived those counselors with higher levels of self-confidence to be more effective than counselors with lower levels of self-confidence. **Selfridge and Vander Kolk (1976)**, in their empirical investigation of school counselors, found a strong positive relationship between counselor levels of self-actualization and counselor effectiveness as perceived by clients. Finally, Wiggins and Giles (1984) report that counselors with high levels of self-esteem in their study were perceived as more effective on post counseling measures of empathy by child clients with both high and low levels of self-esteem.

These studies provide support for the notion that counselor trait constructs related to self-efficacy can influence client's perceptions of counselor effectiveness. Although most of these studies (Lin, 1973; Maskin, 1974; & Wiggins and Giles, 1984) used relatively small sample sizes and restricted measures of counseling outcome, the results are promising. More carefully designed studies with larger sample sizes and more objective and reliable measurements of counseling effectiveness are needed to fully understand the relationship between these counselor traits and counseling skill performance.

Summary. Perhaps the most prevalent trend discovered in this literature review of research on counseling self-efficacy is the use of analogue designs such as simulated counseling sessions, role plays, or other artificial counseling environments to study the construct of counseling self-efficacy. One has to question the validity of these studies,

despite their claims of providing support for Bandura's (1977; 1982) theory of self-efficacy for two important reasons. The analogue designs of these studies provide participant modeling experiences as opposed to actual personal mastery experiences. Also, according to Bandura emotional arousal, e.g., anxiety serves to decrease or inhibit one's perception of self-efficacy. The absence of anxiety inherent in the nature of the analogue research design, or at the very least a greatly reduced level of anxiety in artificial vs. naturalistic counseling environments, would seem to limit the generalizability of the studies reviewed here to actual, realistic counseling environments.

Anxiety in Counselor Training

Observation, evaluation apprehension and trainee anxiety. Schauer, Seymour, and Geen (1985) discuss the effects of observation and evaluation on anxiety in counselor trainees from a social facilitation paradigm. These authors contended that "observation by supervisors, teaching assistants, and peers accounts for much of the oft noted physiological arousal and self-reported anxiety and that this anxiety often interferes with effectiveness in therapy" (p. 279). According to these authors (Schauer et al., 1985) the drive theory of social facilitation accounts for the effects of observation on beginning counselors in training. Observation by someone in an evaluative role causes the trainee to operate from an increased drive state due to evaluation apprehension. The result of operating from this increased drive state is that the trainee, who has not yet mastered the task of displaying appropriate counseling behaviors, tends to show more inappropriate behaviors when conducting counseling sessions under supervisory observation conditions. Behaviors which may increase during observed counseling sessions include

the trainee talking excessively, advising, "chatting", and asking too many questions (Schauer, et al., 1985).

The positive relationship between observation by others and counseling anxiety has received extensive empirical evaluation. Bowman, Roberts, and Giesen (1978) evaluated counselor trainees' physiological and subjective reports of anxiety during a simulated counseling interview. These authors compared participants anxiety levels prior to and during stimulus situations of reading an article on counseling and conducting a counseling interview with a confederate client. Physiological anxiety was measured by skin conductance and heart rate measures. Subjective anxiety was assessed by two self report measures developed for this study, the Anticipatory Counseling Anxiety Scale, a measure for predicting anxiety, and the Task Anxiety Scale (Bowman et al., 1978).

Results of this investigation (Bowman et al., 1978) on the physiological measures indicated that participants were significantly more anxious when conducting counseling sessions than during the reading task. Baseline autonomic arousal was related to autonomic arousal during the counseling interview. Participants reported significantly higher levels of subjective anxiety in anticipation of, as well as when conducting the counseling interview, leading these researchers to conclude that techniques aimed at changing an individual's expectations regarding the interview may help to produce a change in anxiety within the actual interview. A later study by two of these authors (Bowman & Roberts, 1979) replicated these results, providing further support for the notion that counseling trainees' predictions for experiencing anxiety during counseling account for much of the anxiety actually experienced during counseling.

In addition to the discussion on social facilitation theory and counselor anxiety by Schauer, et al. (1985), other attempts have been undertaken to assess the effects of anxiety in novice counselors on counseling performance. Although at first glance the nature of this relationship may appear to be obvious, results of the empirical investigations of the effects of counselor trainee anxiety on counseling outcome appear to be mixed. Contrary to what might be expected, some investigations reported that counselor anxiety benefits the counseling process (Kazienko & Neidt, 1962; Wicas & Mahan, 1966; and Wogan, 1970). Negative effects of counselor anxiety on counseling outcome have been discovered (Bandura, 1956; Bergin & Solomon, 1963; Bergin, 1966; and Dodge, 1982), while one report (Pennscott & Brown, 1972) showed no effects of counselor anxiety on counseling outcome for beginning therapists.

Beginning counselors, according to social facilitation theory, tend to operate from an increased drive state due to evaluation apprehension, which is heightened when combined with direct supervisory observation (Schauer, et al., 1985). This increased drive state can serve to effect counseling outcome in positive or negative ways, depending on the novice counselor's outcome anticipations. Cottrell, Wack, Sekerak, & Rittle (1968) have noted that anticipation of negative outcomes leads to fear, anxiety or frustration. Anticipation of positive outcomes acts as an incentive which can affect performance. Schauer, et al. (1985) have suggested that studies examining the effect of anxiety on counseling outcome need to control for differences in novice counselor's outcome expectations.

Reducing trainee anxiety. Kaplan (1991) conducted an experiment on the effectiveness of role-play groups in reducing social work trainees' anxiety experienced during field placement. In this study, students were assigned to one of three conditions: the experimental condition, which used a small group format to role play anxiety-arousing excerpts often experienced by trainees in field placement; two control groups were used for comparison, one of which used a small group experience without role playing, and one which had neither of these types of small-group experiences. The treatment group format consisted of a ten minute role play of field placement situation, followed by 20 minutes of group processing time. Anxiety was measured using the Spielberger (1983) State Anxiety Scale, given at the conclusion of the group program and again following the completion of the sixth week of field placement.

Results indicated that participants in the role-play (experimental) group and the non role-play group demonstrated significantly greater reductions in anxiety than did participants in the control-no treatment condition. There were no significant differences between the role-play and the non role-play groups, indicating that group membership appeared to be more important than role playing in decreasing trainees anxiety for the field placement experience.

In a narrative report, Costa (1992) offers six guidelines for supervisors to follow in reducing anxiety in live supervision. These guidelines are based on a review of the literature and the authors personal supervisory experiences. The first suggestion provided for supervisors is to negotiate a clear training contract to help reduce supervisees' resistance by agreeing on specific learning contracts prior to the supervisory experiences.

Contracts should include the methods and goals of supervision, as well as the responsibilities of the supervisee and supervisor, as well as evaluation criteria and structural arrangements.

The second guideline for reducing trainee anxiety in live supervision is for supervisors to match their method of supervision to the developmental stage of the trainee. According to Costa (1992) this will lower trainee anxiety by offering structured and directive support when needed, as well as allowing for more independence at appropriate times in the supervisory relationship. Directly addressing anxiety and fear is the third way supervisors can reduce anxiety of trainees in live supervision. Normalizing anxiety and feelings of incompetence as part of new learning experiences, as well as giving trainees verbal permission to fail allow supervisees to take risks in session.

Developing a collaborative supervisory attitude is the fourth recommendation of Costa makes, though she concedes that much controversy exists in the literature around this issue. After briefly reviewing both sides of the issue, Costa states her personal position that collaborative supervisory relationships promote an attitude of respect, empathy, and acceptance, therefore creating a learning atmosphere for trainees which is relationship enhancing as opposed to hierarchical. The fifth suggested guideline for supervisors in live supervision is to create a positive evaluative focus. Feedback is recommended which highlights trainees strengths and provides a positive supervision focus on corrective behavior, as opposed to a negative focus on mistakes.

The sixth guideline offered for supervisors is to encourage independence. This promotes self-directed learning and avoids over-dependence on the supervisor. Although

this may raise trainees' initial anxiety, anxiety is believed to be reduced in the long run, as trainees make the transition from supervisee to counselor. Costa (1992) concludes by suggesting that awareness and understanding of trainee anxiety are crucial precursors to dealing with this aspect of training counselors in a live supervision context.

Ronnestad and Skovholt (1993) discuss strategies for minimizing the impact of anxiety in beginning graduate students in counselor training programs. These authors reported that counselor trainees at this level experience intense anxiety which they further describe as "pervasive anxiety which diminishes markedly over the years for most individuals" (p. 398). Supervisors are encouraged to be consistently aware of and sensitive to the threatening nature inherent in the counseling practicum, which is intensified by the achievement oriented, competitive atmosphere of graduate academic environment.

Graduate student stress can be reduced by supervisors instilling positive values on self-awareness and affective expression in beginning trainees (Ronnestad & Skovholt, 1993). Supervisors should also be open to addressing a variety of learning needs of the student. Although the emphasis of supervision at the beginning level may tend to be on specific counseling techniques, issues related to client dynamics and the phenomenological nature of the therapeutic process are also important. Supervisors are encouraged to create a supervisory relationship characterized by support and understanding, allowing and encouraging the student to try out new behaviors through supervisory tolerance and permissiveness (Ronnestad & Skovholt, 1993).

Anxiety in relation to self-efficacy. The social facilitation theory

position on anxiety in relationship to counseling outcome appears to resemble that of self-efficacy theory (Bandura, 1977). Most notably, perhaps, is that self-efficacy theory addresses the recommendations put forth by Schauer, et al. (1985) by controlling for differences in outcome expectations.

Self-efficacy theory postulates that an individual's outcome expectations for the acquisition of new behaviors are predicted by her/his efficacy expectations. Efficacy expectations, in turn, are influenced by a variety of factors, one of which is emotional arousal. Self-efficacy theory suggests that people base their perceptions of anxiety and vulnerability to stress on their state of physiological arousal, with high arousal believed to debilitate performance. For example, Johnson et al. (1989) found that anxiety due to grading of counseling skills (evaluation apprehension) may interfere with students' efficacy expectations and subsequent skill performance. Beverage (1989) however, found that supervisory evaluation seems to reinforce rather than change counseling self-efficacy.

Bandura (1977; Bandura, Adams, Hardy, & Howells, 1980) argues that, across a variety of means of quantification, a close relationship exists between self-percepts of efficacy and action when efficacy is instated by enactive mastery, vicarious experience, cognitive coping, or elimination of anxiety arousal. Self-efficacy expectations, then, would be higher when individuals experience low levels of autonomic arousal and visceral agitation. Bandura (1977) suggests that an individual's perception of their own arousal when facing threatening behavior can be influenced through attribution, relaxation and biofeedback, and symbolic exposure and desensitization.

Anxiety and immediate feedback using the bug-in-the-ear. Many of the early descriptive reports on the bug-in-the-ear reviewed earlier speak to the relationship between trainee anxiety and use of the BITE as a tool for training and supervision. Opinions on the nature of this relationship are mixed, however. Boylston and Tuma (1972) report that the BITE lowers the initial encounter anxiety of the novice therapist, and Alderfer (1983) states that the supervisee feels more secure when the BITE is used. Cohn (1973) discusses the value of the BITE in allowing the counselor to feel as though he is not alone, which may be particularly important during early counseling experiences.

Korner and Brown (1952), on the other hand, felt that their trainees receiving supervision through the BITE may have experienced some initial anxiety because of the device, though they believed this anxiety dissipated when the benefits of the BITE became apparent to the trainee. Salvendy (1984) reports that receiving information from the supervisor and simultaneously attending to the client can be distracting to the trainee and can increase trainee anxiety. Attempts to incorporate assessing the nature of this relationship in previous BITE empirical investigations are non-existent.

Summary. The fact that counselor trainees experience anxiety when conducting counseling sessions has been well documented (e.g., Bowman, Roberts, & Giesen, 1978; Bowman & Roberts, 1979). Observation and evaluation apprehension are also believed to contribute to the level of anxiety novice counselors experience (Schauer, et al., 1985), especially in the context of the live supervision of counselor trainees (Costa, 1992). Awareness and understanding of trainee anxiety is encouraged, though research efforts to reduce anxiety of counselor trainees is needed.

My study tested Bandura's (1977; Bandura, et al., 1980) hypothesis that efficacy expectations can be enhanced by reducing anxiety arousal, thereby strengthening the relationship between efficacy expectations and outcome. This hypothesis was tested in a counselor training environment. Immediate, in-session feedback using the bug-in-the-ear was used in an attempt to reduce or eliminate anxiety arousal, thereby increasing counselor trainees' self-efficacy for demonstrating appropriate counseling behaviors.

Outcome Evaluation in Supervision

Dimensions of supervision. Relevant literature on two different dimensions of supervision is briefly reviewed. First, supervisory styles and techniques specific to the supervision of beginning counselors in training will be discussed. Following this, results of an investigation of the dimensions that characterize live supervision is presented.

Studies have shown that beginning supervisees prefer supervisors who teach specific skills in addition to providing support and encouragement (Heppner and Roehlke, 1984). In a review of the literature on the supervision of beginning graduate students in counseling, Ronnestad and Skovholt (1993) offered several suggestions for supervisors. Beginning graduate students in counselor training programs are immediately exposed to new theoretical and empirical information and then often expected to integrate this information and perform adequately in the counseling practicum. As a result, supervision at this level of training should be generally directive and instructional in nature. Modeling of specific counseling skills can provide a potent learning process for beginning counselors, though caution is advised. In addition, supervisors of the beginning counseling graduate student should provide much encouragement, support and

feedback, as well as a high degree of structure. Supervisors are also encouraged to be aware of the diverse backgrounds and previous experience of trainees (Ronnestad and Skovholt, 1993).

Worthington and Roehlke (1979) conducted an investigation on beginning counselor trainees' perceptions of effective supervision. These investigators began by generating a list of 42 supervisor behaviors through interviews with experienced supervisors not involved in the study. Sixteen practicum supervisors serving as one group of participants in this study then rated their perceptions of the importance of each of the 42 supervisor behaviors to providing good supervision to beginning counselors. A 5-point Likert scale was used to rate each behavior, ranging from "absolutely crucial for good supervision" (5), to "matters hardly at all for good supervision" (1) (Worthington & Roehlke, 1979, p. 64). A semester of counseling practicum then transpired, with the 16 participants in the supervisory group acting as supervisors for 31 counselor trainees, who served as the second group of participants in this study.

The counselor trainees then rated the behaviors of their supervisors during the practicum experience. A similar 5-point Likert scale was completed for each of the 42 supervisory behaviors by the trainees, ranging from "perfectly descriptive of my supervisor's behavior" (5), to "never/infrequently descriptive of my supervisor's behavior" (1) (p. 65). The counselor trainee group of participants also rated their perceptions of supervision effectiveness in terms of their satisfaction with supervision, competency of their supervisor, and the supervisors' contributions to trainees' improvement in counseling ability.

Results of the analyses of the supervisor and supervisee participant groups' ratings of the 42 supervisor behaviors yielded different perceptions as to which specific supervisor behaviors believed to be essential for effective supervision of beginning counselor trainees. The group of supervisor participants in this study rated behaviors describing specific types of feedback given to trainees regarding their behavior in sessions as most important in supervision. The trainee participant group, in contrast, rated supervision as good if a personal and pleasant supervisor-supervisee relationship existed, and if supervisors provided relatively structured supervision sessions, especially early in the practicum. Also judged as important to the trainee group was that supervisors directly taught them how to counsel by example, by using literature, and by didactic instruction, and then encouraged the trainees to try out their new skills (Worthington & Roehlke, 1979). Factor analysis of the supervisor behaviors revealed two factors, named evaluation and support, which characterize the frequency of supervisor behaviors in the supervision of beginning counselors in training.

A variety of models of clinical supervision have been proposed (e.g., Bernard, 1979; Hogan, 1964; Littrell, Lee-Bordern & Lorenz, 1979; and Stoltenberg, 1981). These models are presented in the context of traditional, delayed supervision. An attempt to categorize the types of supervisory interventions which occur specifically in the context of live supervision has recently been conducted (Heppner, e al., 1994). These authors defined live supervision as the supervisor observing and periodically intervening in an ongoing counseling interview to provide immediate supervision. This investigation was conducted because supervisor interventions in live supervision are believed to be more

specific and time-limited than those which occur in the more typical one to two hour supervisory sessions characteristic of delayed models of supervision (Heppner, et al., 1994).

Interventions from actual supervisory situations were analyzed to describe underlying dimensions which characterized the nature of live supervision interventions. A process conceptually similar to factor analysis, multidimensional scaling (Fitzgerald & Hubert, 1987) was used to examine the interrelatedness of the supervisory interventions and to identify basic dimensions which underlied the actual supervisory interventions taken from live supervision situations (Heppner, et al., 1994).

Sixteen graduate students enrolled in a masters' level counseling methods course were used as counselor trainees in this study. Each trainee conducted four sessions with a volunteer client. The counseling sessions were supervised live by one of eight supervisors. In this setting, supervisors delivered interventions by directly entering the counseling room and providing feedback to the counselor trainee and modeling appropriate interventions for use with the client. Supervisors were instructed to intervene when the counseling session lacked direction, when the counselor was stuck, or when the supervisors were concerned about client welfare (Heppner, et al., 1994).

From these 64 sessions, a total of 27 supervisory interventions were randomly selected and then transcribed for analysis by 26 independent judges. A supervisory intervention was defined as any interaction between supervisor and counselor trainee or supervisor and client that lasted 15 minutes or less. The interventions were then categorized by the judges and analyzed using the multidimensional scaling procedures.

Results of the analyses yielded six dimensions which characterized the live supervisory interventions.

The dimensions identified by this investigation (Heppner, et al, 1994) discussed here are bi-polar, each containing interventions at positive and negative ends of the dimension. The first dimension was labeled "Directing-Instructing Versus Deepening". The positive end of this dimension included interventions which helped the trainee to find a direction for the session. At the negative end of this dimension were interventions that involved the supervisor offering suggestions to deepen the existing emotional process of the session. The second dimension, "Cognitive Clarification Versus Emotional Encouragement", described interventions which focused on helping the trainee and client to clarify the content of the session in terms of specific tasks and goals (positive end). Also included in this dimensions were supervisory interventions which focused on helping the trainee to express emotions they were experiencing in relation to the client (negative end).

Dimension three, "Confronting Versus Encouraging the Client" (Heppner, et al., 1994), was used to describe those interventions in which the supervisor identified how the client may have been impeding the trainee and how this could be altered. The negative end of this dimension depicted interventions where the supervisor helped the client to be more comfortable and more willing to take risks. The fourth dimension, "Didactic-Distant Versus Emotionally Involved", refers to interventions which were categorized by the supervisor giving detailed advice in a detached fashion (positive). On

the negative pole of this dimension, the supervisors were seen as more emotionally connected and invested in the outcome of counseling when intervening in the session.

Dimension five appeared to characterize a confrontive-nonconfrontive style of supervision directed toward the trainee. On the positive end of dimension five, "Joining With Versus Challenging the Trainee", supervisors reinforced what the trainee was saying to the client, in order to help the client to understand what the trainee wanted. The supervisor challenged the trainee to come up with a different approach to solving the problem currently being experienced in the session in interventions at the other end of this dimension. Finally, dimension six, "Providing Direction Versus Resignation" included supervisor interventions on the positive end directed toward helping the counseling process to move forward. The negative end of this dimension involved the supervisor resigning from actively intervening in the session.

Authors of the above investigation (Heppner, et al., 1994) concluded that interventions delivered in the context of live supervision are complex and multidimensional, requiring a variety of dimensions to capture the essence of the type(s) of interventions offered. These dimensions need to address..... "the content or goal of the intervention, the relational context of the intervention, and the immediate effects of the intervention on the supervisor" (p. 232).

Measuring outcome in supervision. A variety of instruments have been used to evaluate the effectiveness of supervision. Opinions expressed by experts in the field as to what types of measures constitute the most accurate representation of supervision effectiveness are mixed. Lambert (1980) conducted a review of the research on the

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effects of supervision in psychotherapy training. The following conclusions were reported in this review: (a) the most useful supervision measures focus on specific, observable counselor behaviors; (b) The Truax and Carkhuff scales are inefficient measures that do not have a strong relationship with psychotherapy outcome, (c) the most convincing research on supervision effectiveness contains data obtained from several sources, including trainees, clients, supervisors, and independent observers; (d) outcome measures in supervision which are based on simulated counseling stimuli are not acceptable substitutes for describing what occurs in actual counseling situations, and (e) supervision research that studies trainee behaviors with actual clients, and includes some measure of the effects of these behaviors on clients, constitute the most persuasive studies on the effects of supervision.

Lambert's (1980) conclusions regarding the measurement of supervision effectiveness has been challenged in a similar review conducted by Holloway (1984). Holloway contends Lambert's opinion, that the most powerful outcome criteria in supervision research includes trainee behaviors and the effects of these behaviors on clients, places restrictions on the nature of supervision research by ignoring other important sources of outcome information. Holloway (1984) identifies two important limiting conditions of this view of supervision research:

1. the relationship between supervisory input variables and outcome measures is difficult to determine because intervening outcomes are not considered: therefore descriptions of supervisory events have tended to be global and imprecise.

2. there are numerous desirable outcome variables that supervisors strive toward other than trainee skill acquisition; these outcomes have been largely ignored in empirical studies. (Holloway, 1984, p. 167).

Holloway goes on to review empirical studies on the effects of supervision presenting these studies according to a framework of sources of outcome data in supervision.

Holloway's framework for sources of supervision outcome is organized around the varying roles of the supervisor and the trainee, and the contexts in which these roles occur. The roles of the supervisor are defined as monitor, instructor, consultant, counselor, and colleague. The corresponding trainee roles include counselor, student, supervisee, client, and colleague. Specific instruments used in supervision research are then presented according to three dimensions: (a) evaluation source, (b) person being evaluated, and (c) context of the evaluation. Evaluation sources in previous supervision research have included the supervisor, trainee, client, and observer. The person being evaluated in supervision research includes the supervisor, trainee, and client. The context of evaluation refers to the supervision interview or the counseling interview.

Forty-eight studies published between 1961 and 1983 were included in Holloway's (1984) review. Studies based on prepracticum or microskills training taught outside of the supervisory relationship were not included. The majority of supervision research appears to have been conducted under the framework of the trainees evaluating supervisors in the context of the supervision interview, and observers rating trainees based on the counseling interview. Although research has been conducted on the evaluation of the trainee in the context of the supervision interview, the majority of these

studies use trainees' self-ratings of their performance in supervision, or independent observers evaluation of the trainees performance in the supervision interview. Two studies were listed however, which involved the supervisor's evaluation of the trainee in the context of the supervision interview (Holloway & Wampold 1983; and Loesch & Rucker, 1977).

Holloway contends that only two instruments exist which are designed to measure the trainee's behavior in supervision, the Trainee Personal Reaction Scale (Holloway & Wampold, 1983), and Blumberg's Interactional Analysis (Blumberg, 1970). Holloway does acknowledge that other instruments, such as the Counselor Evaluation Rating Scale (CERS, Myrick & Kelly, 1971) and the Counselor Rating Form (CRF, Barak & LaCrosse, 1977) have been used to evaluate the trainee in the context of the supervision interview. Holloway states that instruments such as the CERS and the CRF focus on the attractiveness of the counselor as a source of evaluation of the trainee in supervision. This assertion appears to be inaccurate, at least for the CERS.

The CERS contains a separate 13-item sub-scale designed to measure the trainee's behavior in the supervision interview. Examples of some of these items which would seem to contradict Holloway's assertion that the CERS is limited to assessing the attractiveness of the counselor trainee include: (a) "Participates actively and willingly in supervisory sessions", (b) "Is open to self-examination during supervision", and (c) "Can deal with content and feeling during supervision".

There appear to be an additional inconsistency in the Holloway review regarding the CERS. Holloway (1984) cites four studies using the CERS under the framework of

the supervisor evaluating the trainee in the counseling interview (Borman & Ramirez, 1977; Dodenhoff, 1981; Loesch & Rucker, 1977; and Zarski, Bubenzer, & Walter, 1980).

Despite the fact that all four of these studies utilized the CERS in its entirety, which includes the supervision behaviors sub-scale, Holloway included only one study (Loesch & Rucker, 1977) under the framework of the supervisor evaluating the trainee in the context of the supervision interview. The reasons for this inconsistency are unclear.

Disagreements in ratings of counselor performance depending on evaluation source (e.g., self, peer, supervisor, observer/expert) has been well documented (e.g., Borders & Fong, 1989; Bozarth & Grace, 1970; Hansen, Moore, & Carkhuff, 1968). The CERS appears to be no exception. Studies of counseling performance have yielded differences in ratings depending on the source of evaluation. Fuqua, Johnson, Newman, Anderson, and Gade (1986) found that performance ratings on the CERS differed significantly depending on the source of the evaluation. Both self and peer rating were significantly higher than supervisor ratings on the CERS. Borman and Ramirez (1975) also found that students reported significantly higher self-ratings on many CERS items, as compared to practicum assistant (supervisor) and instructor ratings on the same items. Fuqua, et al. (1986) offer two suggestions to address the variability across evaluation sources of CERS scores: (a) relying on supervisory ratings early in training, or (b) focus directly on discrepancies across the rating sources as part of the training process.

Evidence for different factor structures of the CERS depending on rating source has also been presented. The CERS, when completed by supervisors, has a six factor structure. These six factors are: (I) general counseling performance, (II) professional

attitude, (III) counseling behavior, (IV) counseling knowledge, (V) supervision attitude, and (VI) supervision behavior (Myrick & Kelly, 1971; Loesch & Rucker, 1977). It has also been determined that these six factors account for 71% of the total variance in CERS scores (Loesch & Rucker, 1977). Benshoff and Thomas (1992), reporting results of their factor analysis, describe a different factor structure of the CERS when this instrument is self-administered. This factor analysis of the self-administered CERS generated a four factor structure: Purposeful Counseling Performance (I), Non-counseling behaviors (II), Supervision Attitude (III), and Counseling Orientation (IV).

The CERS is one of the most widely used instruments in supervision research (Holloway, 1984). In addition to the four studies cited in the Holloway review of supervision research, three studies published subsequently to this review that used the CERS as a measure of counselor performance were discovered (Benshoff and Thomas, 1992; Fuqua, et al., 1986; and Borders and Fong, 1989). Two studies were located that were published prior to but not included in Holloway's (1984) review (Hansen, Robins, & Grimes, 1982; Loesch, Crane, & Zucker, 1978). One additional study (Tentoni & Robb, 1977) used a modified version of the CERS, client ratings of trainees on the counseling behaviors sub-scale, to measure counselor trainee performance. Golsan (1976) also used the CERS as a measure of counseling performance, and Beverage (1989) has also employed the CERS as a measure of trainee performance in counseling sessions.

Summary. The CERS appears to be an especially appropriate measure of trainee performance in the counseling practicum. The CERS was originally developed for the

specific purpose of evaluating a trainee's total counseling practicum or internship experience, including the trainee's behavior during supervision (Myrick & Kelly, 1971). The majority of studies using the CERS have been conducted in the counseling practicum setting for beginning level masters' trainees. Loesch & Rucker (1977) concluded that the CERS is a useful indicator of a trainees performance during initial closely supervised counseling practicum situations. Results of the study by Heppner, et al., (1994) were used in conjunction with other methods to develop content areas for delivering immediate feedback to the counselor trainees in this study.

Concluding Summary

The literature reviews presented here offer several conclusions which served as the impetus for the research hypotheses investigated in my study. Previous reports have shown that counseling trainees receiving immediate, in-session feedback via the BITE display significantly higher scores on measures of general counseling skills (Golsan, 1976; Tentoni and Robb, 1977), and on measures of higher level counseling skills such as confrontation and immediacy (Golsan, 1976). My investigation expanded the design of these studies to include more recent constructs related to counseling outcome, such as counseling self-efficacy and anxiety.

Positive relationships between counseling self-efficacy and counseling performance have been reported (Dunnewold, 1982; Johnson, et al., 1989; Larson, et al., 1992; Reese, 1993; Rezek, 1994; Salmi, 1992). However, all of these studies have employed analogue designs, either in simulated counseling sessions or laboratory role plays of counseling activities. No empirical investigations of the relationship between

counseling self-efficacy and counseling performance conducted in a naturalistic setting were discovered in the available literature and abstract reporting services. The artificial nature of the previous studies on counseling self-efficacy and counseling outcome would seem to severely limit the generalizability of these results. My investigation examined counseling self-efficacy in a setting where counselor trainees counseled actual clients with real problems and concerns.

Research also exists which shows a negative relationship between anxiety and counseling outcome, especially when counselor trainees are observed and evaluated by supervisors (e.g., Bandura, 1956; Bergin & Solomon, 1963; Dodge, 1982; Schauer, Seymour, & Geen, 1985). Anxiety has also been shown to negatively correlate with counseling self-efficacy (Larson, et al., 1992), as well as self-efficacy in general (Bandura, 1977; Bandura, Reese, & Adams, 1982).

My study examined the effectiveness of using the BITE in counselor training. A specific issue not addressed in previous investigations on this technique was the effect of using the BITE on counseling self-efficacy, anxiety, and subsequently, counseling outcome. My study evaluated these variables, and their usefulness for consideration in the training of beginning counselors.

CHAPTER 3

METHOD

This quasi-experimental field study investigated the use of the bug-in-the-ear (BITE) system as an instructional device for delivering immediate, in-session feedback to beginning, masters level counselors in training. Specifically, the relationship of this immediate feedback to counseling self-efficacy, anxiety, and counseling skill development was tested.

Setting

The setting for the study was the UND-Village Community Counseling Clinic. This clinic was developed through a joint effort of the University of North Dakota Department of Counseling and the administration of the Village Family Services Center in 1991. The purposes of the clinic were: (1) to provide an opportunity for the training of masters level counselors in a naturalistic setting utilizing a live supervision model of counselor education; and (2) to provide low-cost, high quality counseling services to members of the community who might not otherwise have access to counseling, because of the stringent financial demands traditionally associated with counseling services.

Structure of the counseling practicum course. In addition to counseling clients at the UND-Village community counseling clinic, counselor trainees were required to participate in weekly seminars conducted by the practicum instructor. The training

seminars incorporated a variety of didactic and experiential activities designed to teach appropriate counseling skills and foster the development of professional attitudes and behaviors. Students were also instructed and tested on the ethical guidelines for counselors during the seminars. The seminars met weekly throughout the duration of the 16 week semester (fall and spring semesters), or 12 week semester (summer), and attendance was mandatory for participants in both treatment conditions.

Pilot study. Prior to the beginning of data collection a pilot study was conducted during a one semester counseling practicum identical to the practicum experiences described above. Participants in the pilot study were masters level counseling students similar to but independent of the current study participants.

The purpose of the pilot study was to develop standardized procedures for delivering in-session feedback to counseling trainees. Specifically, the frequency of cues delivered in sessions, the timing of cues, and types of feedback cues delivered were developed by implementing counselor trainee feedback regarding their experience with the BITE during the pilot study. Suggestions for cueing trainees offered by McClure and Vriend (1976), were tested and revised during the pilot study. In addition, video tapes of these students conducting counseling sessions were used to train the independent observers for the present investigation.

Participants

Participants. A total of 20 graduate students registered for the masters counseling practicum course at the University of North Dakota Department of Counseling

participated in the study. Students registered for this course after successfully completing the Introduction to Counseling Methods course (COUN 518). Successful completion of the counseling methods course connoted approval by the department to continue in the graduate counseling program.

Eighteen of the participants were actively enrolled in the Masters of Counseling program at the time of the study. Two remaining participants were completing the masters counseling practicum in order to satisfy unfulfilled admission requirements for the Counseling Psychology Doctoral Program. Due to the restrictions on the number of students who could enroll in this course (between six and eight students per semester), participants for this study included students enrolled in the counseling practicum during each of three consecutive semesters.

The participant pool consisted of 15 women and five men, 19 of whom were Caucasian and one of whom was of Native American descent. . Participants ranged in age from 22 to 46 years. The mean age for all participants was 33.25, with a standard deviation of 8.34. Fifteen had matriculated in the masters degree program in counseling with undergraduate majors in psychology, two with undergraduate majors in education, two in social work, and one with a double major of psychology and addiction studies. The mean number of courses being taken by the participants concurrent with the practicum experience was 3.25, with a standard deviation of 1.41. Participants had completed an mean of 5.95 counseling courses prior to beginning their practicum experience ($SD = 2.39$).

Participants were assigned to one of two groups: a treatment group (BITE) which received in-session feedback using the BITE technology in addition to the procedures of live supervision currently used by the UND-Village Community Counseling Clinic; and a supervision as usual control group (no-BITE) which received feedback in accordance with the procedures of live supervision described below. Participants in the control condition did not experience in-session feedback using the BITE. Participants in this study are hereafter referred to as “trainees”.

Supervisors. Two doctoral students in counseling psychology served as immediate supervisors of the trainees during each semester of data collection. A total of four supervisors were involved in the study. Supervisors completed a doctoral level seminar in the principles and techniques of clinical supervision prior to participating in the study. The author of this study supervised trainees during the initial semester of data collection. To control for supervisor effects trainees in both the BITE- and no-BITE groups were supervised by both of the doctoral student supervisors during the course of the study.

For the purposes of analysis, supervisor ratings of trainee performance reflected the average of the two supervisor ratings for each trainee, obtained at the end of each semester. A structured schedule for supervision was followed as closely as possible. Prior to the beginning of each semester, doctoral student supervisors received training in the standardized instructions for supervision of trainees and in techniques associated with using the BITE.

Practicum Instructor(s). Four faculty members from the UND department of counseling psychology served as instructors during the three semesters of the practicum course which comprised the course of the study. All instructors were licensed counseling psychologists who also served as director of the UND-Village Community Counseling Clinic during their tenures as course instructor. The role of the faculty instructor was to provide supervision to the doctoral student supervisors, as well as additional supervision to the counselor trainees. The faculty instructor also led the weekly didactic seminars.

Observers. Three doctoral students unfamiliar with the participating trainees served as independent observers. The observers had no other association with the trainees or the counseling practicum, and were blind to the assignment of participants to treatment/control condition. Observers were trained in the use of the evaluation instruments until acceptable inter-rater reliability estimates were achieved. Observers were trained using confederate tapes of counseling sessions recorded during the pilot study. Independent observer ratings were obtained after all data was collected, at the end of third semester. The rate of inter-observer agreement was .79 for the CERS and .97. for the CSRF.

Instrumentation

The specific variables examined included trainee demographic information, counseling self-efficacy and efficacy expectations, anxiety and anxiety expectations, and counseling outcome.

Demographic questionnaire. Trainees provided information related to general demographic characteristics such as age, gender, ethnic background, etc. In addition, trainees listed the counseling courses completed prior to beginning the counseling practicum, as well as courses taken concurrent with the counseling practicum. Any previous related work experience was also recorded. The demographic questionnaire is presented in Appendix A.

Counseling Self-Efficacy. Participants' counseling self-efficacy was measured by the Counseling Self-Estimate Inventory (COSE, Larson, et. al., 1992), The COSE is a 37 item self-report instrument designed to measure counselor trainees' expectations for success in a counseling situation or judgments of their capabilities to counsel successfully in counseling situations. This instrument was developed and normed on beginning counselor trainees who were enrolled in pre-practicum counseling courses. The items on the COSE reflect both positive and negative statements about counseling self-efficacy. Respondents rate their level of agreement with each statement using a 6-point Likert scale ranging from strongly disagree (1) to strongly agree (6) with self-efficacy statements for counseling activities in actual counseling situations. The COSE is presented in Appendix B.

Factor analysis of the COSE items (Larson, et. al, 1992) yields a five factor structure which defines the instrument as a general measure of counseling self-efficacy. The first factor contains 12 items which reflect fundamental pre-practicum course instructional content. This factor has been labeled Microskills, because the items refer to

a trainees' expected ability to execute specific counseling behaviors. The second factor, containing 10 items, is labeled Process. Items loading on this factor reflect the counselor's actions across a series of responses versus a single response. The third factor, labeled Difficult Client Behaviors, contains seven items which focus on the knowledge and techniques used in dealing with a variety of challenging client behaviors. The fourth factor of the COSE is labeled Cultural Competence, with items pertaining to behaving in culturally competent ways with clients of different cultures, ethnic backgrounds, and social class. Finally, the fifth factor, Awareness of Values, addresses the impact of the counselor trainees' biases or values.

The COSE scores are obtained by summing an individual's responses across the 37 items, with negative items reverse scored prior to summation. The COSE has been designed to focus on nonspecific, or general counseling behaviors and responses that are not tied to a particular theoretical orientation.

Internal consistency reliability estimates for the COSE reported by the authors are quite favorable (Larson, et al, 1992). The internal consistency reliability coefficients for the COSE total score and five factors are as follows: COSE total, $\alpha = .93$; Microskills, $\alpha = .88$; Process, $\alpha = .87$; Difficult Client Behaviors, $\alpha = .80$; Cultural Competence, $\alpha = .78$; and Awareness of Values $\alpha = .62$. In addition to strong support for the internal consistency of this item, positive test-retest reliability is also demonstrated by the test developer. Three-week test-retest estimates of reliability are also acceptable: for COSE total score, $r = .87$; for Microskills, $r = .68$; for Process, r

= .74; for Difficult Client Behaviors, $r = .80$; for Cultural Competence, $r = .71$; and for Awareness of Values, $r = .83$.

Evidence for convergent validity is encouraging. Counselor trainees who reported higher levels of counseling self-efficacy as measured by the COSE also reported higher self-concepts and less state and trait anxiety. In addition, trainees who reported greater self-efficacy also perceived themselves as more effective problem solvers than did trainees reporting lower levels of counseling self-efficacy.

Discriminant validity of the COSE has been demonstrated as well. COSE total and five factor scores have been shown to correlate minimally with measures of defensiveness and faking, as measured by the Social Desirability Scale (Crowne and Marlow, 1960) and Self-Criticism scores on the Tennessee Self-Concept Scale (Fitts, 1988), respectively. The COSE total and five factor scores also correlated minimally with estimates of aptitude as measured by GRE Verbal and Quantitative scores (Educational Testing Services, 1988) and academic performance as measured by undergraduate grade point average, suggesting that the COSE taps in to constructs unrelated to estimates of intellectual functioning. Finally, the COSE does not appear to be measuring personality type, as evidenced by non-significant correlations between the COSE total and five factor scores and scores generated by the Myers-Briggs Type Indicator (Myers, 1962).

Efficacy expectations. Counselor trainee's efficacy expectations for each counseling session scheduled during the practicum was assessed by the following single-

item measure constructed for the purposes of my study: “How confident are you that you will be able to exhibit appropriate counseling behaviors in this session?” Trainees indicated their degree of confidence using a 6-point Likert scale, with potential responses ranging from (1) Not at all confident, to (6) Extremely confident.

Trainee Anxiety. Anxiety was measured by the State-Trait Anxiety Scale (STAI, Spielberger, 1983). This instrument provides a measure of the respondent’s state and trait anxiety. Twenty, 4-point Likert items comprise the State Anxiety scale, and 20 4-point Likert items comprise the Trait Anxiety scale, with higher scores indicating higher levels of anxiety on each scale. Test-retest estimates of reliability for the STAI State Anxiety scale range from .16 to .62, while estimates for test-retest reliability of the STAI Trait Anxiety scale range from .65 to .75 (Spielberger, 1983). The lower estimates of reliability for the State Anxiety scale are expected, as state anxiety is expected to change over time, and are believed to fall within acceptable limits (Spielberger, 1983). The STAI has been frequently used to assess anxiety among counselor trainees (Hungerman, 1985; Kaplan, 1992; Larson, et al., 1992; and Udis, 1990). The STAI is presented in Appendix C.

Subjective anxiety. Counselor trainee's subjective anxiety was assessed by the following single-item measure composed for the purposes of my study: “How anxious are you about your performance in the upcoming session?” Trainees indicated their degree of perceived anxiety using a 6-point Likert scale, with potential responses ranging from (1) Not at all anxious, to (6) Extremely anxious.

Counseling Outcome. The Counselor Evaluation Rating Scale (CERS; Myrick and Kelly, 1971) consists of 27 items which reflect a counselor's performance in both counseling and supervision. This instrument was developed for use in a counseling practicum. The CERS yields three scores: 13 items assess the individual's performance of specific counseling behaviors; 13 items assess the trainee's progress in supervision, and one item ("Can be recommended for a counseling position without reservation") reflects a total score. The composite score (counseling, supervision, and total) is purported to be a measure of an individual's performance in a supervised counseling experience. Testing of the primary hypotheses of this study involved independent observer scores for each trainee on the counseling behaviors sub-scale only. The CERS is presented in Appendix D.

The CERS is designed as both a self-report measure and an evaluative measure completed by a trainee's supervisor, or by independent observers. The factor structure of this instrument appears to differ however, depending on the respondent. Loesch and Rucker (1977) describe a 6-factor structure when the CERS is completed by the supervisor. They define the six primary factors as general counseling performance (I), professional attitude (II), counseling behavior (III), counseling knowledge (IV), supervision attitude (V), and supervision behavior (VI). Loesch and Rucker (1977) also report two second-order factors (primary factors I, III, and IV; primary factors II, V, and VI) which closely approximated the counseling and supervision scales of the CERS as proposed by the original authors (Myrick and Kelly, 1971). Loesch and Rucker (1977)

also report that the total score, overall supervised counseling effectiveness, seems to have the greatest validity.

Benshoff and Thomas (1992), reporting results of their factor analysis, describe a different factor structure of the CERS when this instrument is self-administered. This factor analysis of the self-administered CERS generated a 4-factor structure: Purposeful Counseling Performance (I), Non-counseling behaviors (II), Supervision Attitude (III), and Counseling Orientation (IV). Other studies have reported significant variability in ratings of counselor trainee effectiveness using this measure depending on the source of the rating; self, supervisor, peer or client (Borders & Fong, 1989; Fuqua, Johnson, Newman, Anderson, & Gade, 1986). The CERS has been used extensively in research studies of counselor training (e.g., Borman and Ramirez, 1975; Dodenhoff, 1981; Hansen, Robins, & Grimes, 1982; Zarski, Bubenzer, & Walter, 1980).

Challenging Skills Rating Form. The Challenging Skills Rating Form (CSRFB; Johnson, et. al., 1989) evaluates 19 counselor behaviors believed to represent the 'higher-order' "skills of advanced, accurate empathy, self-disclosure, confrontation, immediacy, and information giving. This instrument is modeled after the Counselor Behavior Evaluation Form (Wallace, Horan, Baker, and Hudson, 1975), which has an internal reliability estimate of $r = .85$. The CSRFB was designed for use in a study evaluating counseling self-efficacy and counseling competence in pre-practicum training (Johnson, et. al., 1989). The 19 behavioral components assessed by this instrument are rated as either (1) fails to display this behavior, (2) slightly displays this behavior, or (3) clearly

displays this behavior. The possible range of scores on this measure is 19 - 57, with higher scores indicating greater performance of desired skills. Appendix E contains the CSRF.

Trainee Value of Cues Scale. (TVCS; McClure & Vriend, 1976). The TVCS was used to assess BITE group trainees' experience of receiving immediate feedback during the counseling sessions. TVCS items use a 6 point Likert Scale, and involve content statements about the perception of the cues delivered in session. Respondents indicate the degree of their agreement with the statements, which are all keyed in the positive direction. The TVCS also contains items which ask trainees to indicate which types of cues they found to be the most and least helpful during each session. An additional TVCS item asks the trainees to list the number of cues they recall receiving during the session. The final section of the TVCS allows respondents to comment on their experience with the bug-in-the-ear during each session. Space is included which allows for discussion of any negative effects of using the BITE on trainees or clients. The TVCS is presented in Appendix F.

Procedures

Pre-test. The first weekly seminar of each semester was held prior to the onset of the practicum counseling sessions. At the beginning of the seminar, counselor trainees completed the consent form for participation in the study, the trainee demographic questionnaire, the Counselor Self-Estimate Inventory (COSE), the State-Trait Anxiety Inventory, and the one item measures of subjective anxiety and efficacy expectations.

Completion of the pre-test measures was followed by an unstructured break in the seminar, during which each trainee's COSE was scored. Trainees were then paired according to the COSE scores. One trainee from each pair was randomly assigned to the (BITE-) treatment condition, with the other trainee in each pair assigned to the supervision as usual (no-BITE) condition. This process allowed for trainee matching across conditions based on pre-test self-efficacy scores. Table 2 depicts the various points of data collection.

Orientation. After random assignment of trainees to the two conditions (BITE- and no-BITE), all trainees assigned to the treatment group received a one hour orientation session designed to familiarize them with the use of the BITE as well as practicum procedures. Trainees in the control group received a one hour orientation to the practicum procedures only. This orientation was led by the doctoral student supervisors and occurred after all pre-test measures were administered, but prior to the beginning of the trainees' initial counseling sessions.

During orientation, trainees in both groups experienced the practicum procedures by acting as counselors in a role play of an actual counseling session (being observed through a one-way mirror, taking a scheduled consultation break, etc.). The orientation session was identical for the trainees in both the BITE- and no-BITE groups, with one exception. Trainees in the BITE condition received immediate feedback using BITE during their role plays, while participants in the no-BITE group did not receive immediate feedback. The role plays allowed the counselor trainees to briefly experience

Table 2. Points of Data Collection, Source and Types of Data Collected.

<u>Pre</u>	<u>Sessions 1-5</u>	<u>Mid - (after session 5)</u>	<u>Sessions 6-10</u>	<u>Post (after session 10)</u>
Trainee Data:				
Consent Form	_____	_____	_____	_____
Demographics	_____	_____	_____	_____
COSE ^a	_____	COSE	_____	COSE
STAI-Trait ^b	_____	_____	_____	_____
STAI-State ^c	_____	STAI-State	_____	STAI-State
_____	_____	_____	_____	CERS ^d
Subjective Anxiety	Subjective Anxiety	Subjective Anxiety	Subjective Anxiety	Subjective Anxiety
Efficacy Expectation	Efficacy Expectation	Efficacy Expectation	Efficacy Expectation	Efficacy Expectation
				Supervisor Data:
_____	_____	_____	_____	CERS ^d
_____	_____	_____	_____	CSRF ^f
				Observer Data:
_____	_____	_____	_____	CERS ^g
_____	_____	_____	_____	CSRF

^aCounseling Self-Estimate Inventory (Larson, et al., 1992)

^bState-Trait Anxiety Inventory - Trait Scale (Spielberger, 1970)

^cState-Trait Anxiety Inventory - State Scale (Spielberger, 1970)

Table 2 cont.

^dCounselor Evaluation Rating Scale (Myrick & Kelly, 1971), all three sub-scales

^eThese measures were completed by trainees 20 minutes prior to each counseling session conducted throughout the practicum experience.

^fChallenging Skills Rating Form (Johnson, et al., 1989)

^gCounselor Evaluation Rating Scale, counseling behaviors sub-scale only.

the structure of the counseling practicum at the UND-Village Community Counseling Clinic.

The rationale for this orientation was based on previous reports which recommend a comprehensive orientation to the BITE provided for trainees to decrease trainee resistance and anxiety (Cohn, 1973; McClure & Vriend, 1976; Korner & Brown, 1952; Mosley, 1982; and Whiffen & Byng-Hall). Trainees in the control condition received a similar orientation experience to balance the amount of time supervisors spent with trainees.

Assignment of supervisory groups and clients. After the first weekly seminar and before the first counseling session, trainees were assigned to one of two supervisory groups. The supervisory groups were referred to as the "blue" group and the "gold" group, based on the color of the furnishings in each of the counseling rooms. One doctoral student supervisor served as primary supervisor for each group, though trainees received supervision from both supervisors according to the schedule described in

Appendix G. Assignment of trainees was counter-balanced across groups according to pre-test self-efficacy scores, so that each group reflected equal ranges of trainee counseling self-efficacy. Table 3 depicts the protocol for assigning trainees to supervision groups.

Table 3. Protocol for assignment of trainees to supervision groups.

<u>BLUE GROUP</u>	<u>GOLD GROUP</u>
T ₁	T ₂
T ₃	T ₄
C ₂	C ₁
C ₄	C ₃

T = Treatment participant (BITE)

C = Control participant (NO-BITE)

1 = participant pair with highest COSE scores

2 = participant pair with second highest COSE scores

3 = participant pair with third highest COSE scores

4 = participant pair with fourth highest COSE scores

Clients were assigned to trainees by the practicum instructor in consultation with the doctoral student supervisors. The following criteria, in order of importance, was followed in the assignment of clients to counselor trainees: (1) client preference for counselor gender or age, if expressed; (2) trainee COSE scores: trainees with high COSE scores will be assigned clients with known history of resistance (e.g., mandated clients), or clients whose intake information suggests challenging therapeutic issues (sexual abuse, suicidal ideation, etc.); (3) scheduled appointment time (consideration of client schedule limitations); and (4) trainees' expressed interest for experience with particular type of client. Clients were randomly assigned to trainees in the treatment or control conditions (e.g., most challenging client randomly assigned to T₁ or C₁).

Phase One. The "Daily Activity Schedule" (see Appendix H) was distributed prior to the initial session and at the beginning of each day the clinic was in operation. This form listed client names and appointment times, counselor trainees assigned to each client, the supervisor supervising each session, and the room in which each session was to be held. Two counseling sessions were scheduled to occur simultaneously, one in each room (blue/gold). Other important information, such as number of trainee sessions conducted and observed and other potential confounds, was also directly recorded on this sheet.

During the first ten minutes of initial counseling sessions with each client, counselor trainees reviewed the UND-Village practicum clinic procedures and statement of understanding form, which described for clients the nature of the supervision and

observation used by the clinic, as well as traditional limits of confidentiality. Counselor trainees also reviewed a client version of the research participation consent form, and obtained client signatures on both forms. For trainees in the treatment condition, clients who inquired about the nature of the BITE device were told by the trainee "I am receiving instructions from my supervisor".

Counseling sessions were 40 minutes long and scheduled one hour apart. This allowed time for trainees to process their performance with the group for 15 minutes. The trainee conducting the next session then had five minutes before the next session was scheduled to begin to discuss last minute concerns with the supervisor. Upon conclusions of the previous session, or approximately 20 minutes before the scheduled starting time of the next session, trainees completed the one-item subjective anxiety and the one-item efficacy expectation measures. Trainees received a video tape of each counseling session conducted to review their performance prior to the next session. Trainees not conducting the counseling session observed the session being conducted in their room. For session one, however, a group with unscheduled appointment slots or client cancellations/no-shows did not have the option of observing the initial session being conducted in the other room, to avoid possible confounds to the analysis of trainee anxiety during the initial counseling session.

For sessions two through five, a group with unscheduled appointment slots or client cancellations/no-shows had the option of observing the session being conducted in the other room. The decision to allow trainees from a different group to observe sessions

was made by the group supervisor and counselor trainee conducting the scheduled session, in consultation with the practicum instructor.

Delivery of feedback. Trainees in both conditions (BITE- and no-BITE) received feedback using the criteria described below. Trainees in the no-BITE group received feedback on their performance during the consultation break that occurred after the first ten minutes of each session, and immediately following the conclusion of each session. Trainees in the BITE group received immediate feedback during the session through the BITE in addition to receiving feedback during the consultation break and immediately following the conclusion of each session.

Timing of in-session feedback. In-session feedback cues were delivered to each trainee in the BITE- condition in a systematic fashion. These specific procedures were based on the one relevant empirical investigation present in the counseling literature (McClure and Vriend, 1976), narrative reports on the BITE (Whiffen & Byng-Hall, 1982; Sanders, 1966), and the pilot study conducted prior to data collection.

Supervisors delivered cues during silent periods in the session, or if this was not possible, when the client was talking. Trainees unable to absorb the simultaneous communications of the client and trainer were instructed to attend to the supervisor's intervention and then to ask the client to summarize what had been said, or reflect back to the client a portion of the client's statement which the trainee was able to perceive while being cued. Feedback from trainees during field testing of these procedures, as well as previously published accounts of the BITE (e.g., Korner & Brown, 1952) highlighted the

fact that trainees were soon able to "split" their hearing between the client and the cue being received via the earphone.

Types of feedback delivered. Supervisors delivered identical types of feedback to trainees in both the BITE- and no-BITE conditions. As described above, no-BITE trainees received feedback during the consultation break and after the session. Treatment trainees received immediate, in-session feedback in addition to receiving feedback during consultation breaks and after sessions.

Content of Cues. Prior to the beginning of each semester, doctoral student supervisors were trained in the use of the BITE technique. To control for supervisory effects, all supervisors were instructed to generate the cues delivered to the trainee along the following dimensions:

1. Reinforcers/encouragers - reinforcement of specific counselor verbalizations delivered appropriately during the session, such as the spoken words "very good". This category also included cues serving as general encouragers, such as "You're doing fine", and "relax".
2. Clarifications - trainee was instructed to clarify content of client verbalization.
3. Timing - these included general session structure issues such as "Take your break now" or "It's time to wrap-up the session", etc.
4. Directives - This category included specific behaviors the trainee is instructed to carry out upon receipt of the cue. These cues were phrased in an unambiguous manner, so that trainees understood that they were required to comply. Examples of these

types of cues included "Ask client about depressive symptoms", or "Probe for more information about...." This category also included clear instructions to the trainee to make process comments or immediacy statements in the session, such as "Share your reactions to what the client is telling you", etc.

5. Suggestions - This category was comprised of cues which were offered when the trainee appeared to be struggling to find a direction in the session. This feedback was phrased in a manner which informed the trainee that implementing these cues was optional, e.g., "You may want to inquire more about client's family background".

6. Feedback specifically requested by trainee - this included specific skills the trainee had chosen to focus on during the current session which were discussed in advance with the supervisor. For example, if the trainee indicated a desire to speak more slowly during the session, the supervisor might offer the cue "Slow down".

The content area descriptors were based on a composite of available information on the BITE, including McClure and Vriend's (1976) study, descriptive reports (Korner and Brown, 1952; Ward, 1962; Cohn, 1973, & Byng-Hall, 1982, etc.), and feedback from trainees the pilot study. In addition, a report on the dimensions which characterize supervisor interventions during live supervision (Heppner, et. al., 1994) was consulted in formulating of the content dimensions for the delivery of cues

Frequency of feedback. A standardized range for the number of cues given per session for each trainee was established based on pilot testing of the BITE device.

Supervisors were instructed to deliver between 11 and 17 cues to trainees during each

session. This range was derived from an examination of the cues delivered to seven counselors during the pilot study. An average number of cues per session was determined ($M=14$), based on a total of 20 counseling sessions using the BITE. The standard deviation of cue frequency ($SD=3$) during this period was then added and subtracted from the mean number of cues delivered to develop a standardized range of cues per session in an attempt to standardize the cueing process and minimize error variance resulting from potential supervisor bias.

Number of sessions cued. Trainees in the BITE condition received in-session BITE feedback for the first five sessions of the counseling practicum. This figure constituted one-half of the number of sessions trainees were required to conduct in order to successfully complete the practicum course requirements. Sessions one through five comprised phase one. The decision to cue trainees only during phase one was based on relevant empirical and descriptive accounts of the BITE. Crawford (1993) suggested cueing at least one-third of the sessions in practicum, allowing time to wean trainees off bug to control for potential dependency effects. Whiffen and Byng-Hall (1982), and Sanders (1966) indicated that the BITE was most useful during the early stages of training.

Post-session processing. All trainees processed each session with their supervisor 10 to 15 minutes immediately following the conclusion of the session. During this time, trainees reviewed their performance in the session with the supervisor and peer group. Trainees also received additional feedback on their performance in session from the

supervisor, and client conceptualization issues were discussed. Trainees in the BITE condition were afforded the opportunity to discuss their experience with the BITE during the session to allow them to process their experience with immediate supervisory cues. Numerous reports on the BITE technique (Boylston and Tuma, 1972; Cohn, 1973; Crawford, 1993; McClure & Vriend, 1976, etc.) stressed the importance of post session processing to ensure the effective use of the BITE. BITE group trainees completed the TVCS after each of their five cued sessions.

Supervision schedule. To control for possible supervisor effects which may confound the results of the proposed study, a strict supervision schedule was followed. This schedule rotated supervisors among trainees in both conditions, so that each participant received supervision from both doctoral student supervisors. The rotation of supervisors was tested during the field study conducted prior to data collection. At that time, trainees reported no ill effects, and many trainees shared favorable impressions of being exposed to different supervisor perspectives.

Appendix E shows the schedule for supervision of all trainees for sessions one through five, when trainees in the BITE condition received in-session feedback. No trainees received in-session feedback during sessions six through ten, which represented phase two of the study. The structure of the supervision schedule allowed trainees in both conditions to be supervised by their primary group supervisor for first and last session of each phase of the study.

All efforts were made to follow the supervisory schedule. When fluctuations in the supervisory schedule were necessary due to scheduling conflicts or other unforeseen circumstances, the following guidelines were implemented: (1) trainees were to have three of their first 5 sessions supervised by their primary supervisor; and (2) trainee's first and fifth session were to be supervised by the primary supervisor.

Phase Two. The second phase of the study involved sessions 6 through 10. After completing the fifth counseling session trainees completed the COSE and the STAI-State. These instruments comprised the mid-point measures. As in phase one, trainees completed the one item anxiety and efficacy estimates approximately 20 minutes prior to each scheduled session during phase two. Supervisors delivered feedback to all trainees during scheduled consultation breaks and post-session only, following the same procedures for this as in phase one.

Post-test measures. Following the completion of session 10, each trainee completed the COSE, STAI-State, and the Counselor Evaluation Rating Scale (CERS), and both doctoral supervisors completed the CERS and the Challenging Skills Rating Form (CSRF). The two supervisor scores on these measures were averaged to determine each participant's final CERS Supervisor, and CSRF Supervisor scores. Each trainee delivered the videotape of session ten (after review) to the experimenter for scoring by independent observers. Independent observers viewed tapes and complete the CERS (counseling behaviors sub-scale only) and the CSRF for each participant.

Theoretical Background. My study examined the use of the BITE to enhance the counseling performance of beginning counselor trainees. Specifically, the application of Bandura's (1977) self-efficacy theory was tested regarding trainee acquisition of appropriate counseling behaviors. Table 4 presents the schematic representation of self-efficacy theory and live supervision using the BITE tested in my investigation.

Analyses of Data and Hypotheses

Data analyses. Descriptive analyses of the data were conducted, with the means and standard deviations of each variable presented for trainees in both treatment conditions as well as a correlation matrix for all independent and dependent measures. Table 5 lists the primary variables used in my study. Other information that may have confounded the study results was collected and examined for differences between trainee groups. This information included variables related to the practicum experience such as (a) number of sessions observed; (b) number of different clients seen in practicum; (c) average number of sessions per client; (d) the number of client no show or cancellations; (e) semester of practicum study (Fall 1995, Spring 1996, or Summer, 1996); (f) primary supervisor; and (g) practicum instructor. Additional information such as counseling course work completed prior to and concurrent with the beginning of practicum and related work experience, was also obtained for trainees in both conditions and tested for significant differences. Because the data collection occurred during three separate semesters, chi-square tests were used to test for differences in all measures across

Table 4. Efficacy Expectations, Live Supervision Activities, and BITE

SOURCE	MODE OF INDUCTION	LIVE SUPERVISION ¹	BITE CUES ²
Performance accomplishments	Participant modeling Performance desensitization Performance exposure Self-instructed Performance	Conducting actual counseling sessions Judgments of success re: performance Post-session processing	In-session reinforcement of success experiences
Vicarious experience	Live modeling Symbolic modeling	Demonstration Sharing personal experiences Video tape review Role-play orientation Live observations	Same as live supervision, and orientation to BITE procedures
Verbal persuasion	Suggestion Exhortation Self-instruction Interpretive treatments	Didactic instruction Encouragement to continue behavior Verbal support to try new behaviors Consultation break	Reinforce/encourage cues Clarification cues Timing cues Directive cues Suggestion cues Specific feedback

Table 4 Cont.

Emotional arousal	Attribution Relaxation, biofeedback Symbolic desensitization Symbolic exposure	Desensitization Pre-session processing Pre-session relaxation	Reinforcers/ encouragers (this includes cues to relax) Immediate avail- ability of supervisor
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¹Includes supervisory activities conducted during practicum seminar

²Trainees in the BITE- group received BITE cues during sessions one through five in addition to all activities of trainees in the no-BITE group

Note: "Source", and "Mode of Induction" from Bandura (1977)

"Live Supervision", adapted from Beverage (1989).

semesters to determine if semester should be entered into the analyses as a covariate.

All hypotheses were tested using multiple regression procedures. Hypothesis 1 and 2 were examined to determine the best prediction of counseling performance, as depicted by observer ratings of trainees' general counseling behaviors and higher level counseling behaviors.

Table 5. Primary Study Variables

<u>Independent Variables</u>	<u>Dependent Variables</u>
Counseling Self-Efficacy, Pre-Test Score	CERS ^a -General
Counseling Self-Efficacy, Post-Test Score	Counseling Skills-
Counseling Self-Efficacy, Residual Change Score (Pre to Post)	Observer (Post)
State Anxiety, Pre-Test Score	CSRFB ^b - Higher Level
State Anxiety, Post-Test Score	Counseling Skills-
State Anxiety Residual Change Score (Pre to Post)	Observer (Post)
<u>Covariate</u>	
Pre-test Counseling Self-Efficacy (Time 1)	

^aCounselor Evaluation Rating Scale (Myrick & Kelly, 1971), counseling behaviors subscale only

^bChallenging Skills Rating Form (Johnson, et al., 1989)

More specifically, hypotheses 1 and 2 were designed to determine the best fit model for predicting counseling performance by first examining treatment condition (BITE, no-BITE), then examining the changes that counseling self-efficacy and trainee anxiety made to that prediction. Residual change scores were used in the analyses for hypotheses 1 and 2, due to the unreliability of simple (post minus pre) change scores resulting from extraneous variance due to pre-test scores as demonstrated by a non-zero correlation between pre-test scores and simple change scores (Cohen & Cohen, 1983). Residual change scores were created by regressing pre-test measures on post-test measures for both counseling self-efficacy and anxiety, thereby partialling out the effect of the pre-score on the post-score.

Hypotheses 3 and 4 employed the logic of covariance procedures within the regression framework (Cohen & Cohen, 1983) to partial out pre-test counseling self-efficacy scores. An alpha level of .05 was used to determine the significance in all analyses.

Hypotheses. The following primary hypotheses were examined:

H_{1a} - Treatment condition (BITE, no-BITE) will account for significant proportions of variance in trainees' scores on the measure of general counseling performance (CERS - observer ratings on counseling behaviors sub-scale).

H_{1b} - Changes in counseling self-efficacy will significantly add to the amount of variance in trainees' scores on the measure of general counseling performance accounted for by treatment condition alone.

H_{1c} - Changes in anxiety level will significantly add to the amount of variance accounted for in trainees' scores on the measure of general counseling performance previously accounted for by treatment condition and changes in counseling self-efficacy.

H_{2a} - Treatment condition (BITE, no-BITE) will account for significant proportions of variance in trainees' scores on the measure of higher level counseling skills (CSRF - observer ratings).

H_{2b} - Changes in counseling self-efficacy will significantly add to the amount of variance in trainees' scores on the measure of higher level counseling skills accounted for by treatment condition alone.

H_{2c} - Changes in anxiety level will significantly add to the amount of variance accounted for in trainees' scores on the measure of higher level counseling skills previously accounted for by treatment condition and changes in counseling self-efficacy.

H₃ - Trainees in the BITE condition will report significantly greater increases in counseling self-efficacy than trainees in the no-BITE condition, from Pre to Post, with trainees' pre-test efficacy scores held statistically constant.

H₄ - Trainees in the BITE condition will report experiencing significantly greater decreases in perceived anxiety (STAI-State) than trainees in the no-BITE condition from Pre to Post, with trainees' pre-test efficacy scores held statistically constant.

Power of analysis. It was predicted by statistical procedures (Kraemer & Theimann, 1987) using a critical effect size of .5, that 20 participants will produce an 80 percent level of power in the proposed analyses. The critical effect size estimate of .5

was obtained by transforming results of the Tentoni and Robb (1977) study on the use of the BITE to improve performance of counselor trainees. This study also used independent observer ratings of the counseling behaviors sub-scale of the CERS as the measure of trainee performance. Procedures outline by Rosenthal (1984) were used to transform the statistics presented in this study into an estimated critical effect size used in this power analysis.

Exploratory analyses. Based on the review of the literature on the BITE, counseling self-efficacy, anxiety, and outcome evaluation in supervision research, a series of exploratory analyses were conducted in the present investigation. Research has demonstrated significant variability in ratings of counselor performance using the CERS depending on the source of evaluation (Borman & Ramirez, 1975; Benschhoff & Thomas, 1992; Fuqua, Johnson, Newman, Anderson, & Gade, 1986). I used analysis of variance methods to further investigate this claim, to determine if differences existed between trainees on CERS scores according to treatment condition (BITE vs. no-BITE) and source of evaluation (self, supervisor, observer). The relationship between supervisor and observer ratings of trainees' performance of higher level counseling skills (CSRF) was also evaluated.

Previous reports on the BITE in counselor training have suggested that the use of the BITE heightens supervisory involvement (Boylston & Tuma, 1972; McClure & Vriend, 1976). This was examined by comparing self and supervisory ratings of trainees'

performance in supervision using the supervisory behaviors sub-scale of the CERS for trainees in both treatment conditions.

The effectiveness of using the BITE to reduce counselor trainees' anxiety for conducting an initial counseling session was also tested. Conflicting evidence on this issue is presented in the literature on the BITE. Boylston and Tuma (1972) found that using the BITE helped trainees to be more relaxed and spontaneous during initial sessions. McClure (1973) suggests an orientation process helps to reduce trainees' initial anxiety for receiving immediate feedback using the BITE. Other narrative reports on the BITE (Korner & Brown, 1952; Salvendy, 1984; Sanders, 1966) have indicated that trainees experience initial anxiety when using the BITE which dissipates after a few sessions.

The relationship between trainees anxiety for conducting an initial counseling session and receiving BITE feedback was assessed in this study by comparing trainees' anxiety expectations at pre-test with anxiety expectations gathered immediately prior to the trainees' second counseling session. This comparison will include self-ratings of anxiety expectations for trainees in both treatment conditions. Further analysis of the relationship between trainees' subjective anxiety and the use of the BITE across the course of the counseling practicum was also conducted. A single-item estimate addressing anxiety expectations for each session was obtained for all trainees. Anxiety expectations for trainees in both treatment conditions were examined to identify patterns of trainee anxiety during the counseling practicum, and the extent to which the BITE

affected trainees' subjective anxiety. To assess the concurrent validity of the single-item anxiety measure, pre-test scores on this instrument were correlated with pre-test STAI-State anxiety scores.

A similar process was used to examine the nature of trainees' efficacy expectations across the course of the counseling practicum. A single item estimate of efficacy expectations was collected for trainees in both treatment conditions at pre-test and immediately prior to each counseling session. To assess the concurrent validity of the single-item measure of efficacy expectations, pre-test scores on this instrument were correlated with pre-test counseling self-efficacy scores. Efficacy expectations for trainees in both treatment conditions were examined, along with counseling self-efficacy measures completed after the last session with the BITE (session 5), to identify changing patterns of trainee efficacy expectations during the counseling practicum, and the extent to which the BITE affected trainees' efficacy expectations.

Finally, exploratory analyses were conducted to develop a preliminary model for explaining the benefits of using the BITE to enhance counselor trainee performance. The model was based on theoretical considerations presented in Table 5. The first two panels of Table 5, "source", and "mode of induction", are taken directly from Bandura's (1977) theory of self-efficacy. The third panel, "live supervision", is adapted from an earlier investigation on counseling self-efficacy (Beverage, 1989), and the fourth panel, "BITE cues", was developed by this author. Data from the TVCS completed by trainees in the BITE- group were used to explore a possible theoretical model which links the delivery

of immediate feedback using the BITE directly to the improvement of counseling self-efficacy among counselor trainees.

CHAPTER 4

RESULTS

Chi-square analyses were used to examine differences on the major study variables for all trainees across the three semesters of data collection, to determine if further data analyses should include semester as a covariate. Results of these analyses failed to indicate any significant differences between trainees across the three semesters of study for pre-test variables including age, counseling self-efficacy score (COSE), state and trait anxiety. There were no significant differences across semesters for the outcome measures of observer ratings of trainee's general or higher level counseling behaviors or supervisor ratings of these variables.

Additional data concerning factors related to the practicum experience was collected to determine if differences in these variables occurred across the three semesters of data collection which might have confounded the study results. None of the following factors were found to differ significantly across semester of study: number of sessions observed, number of different clients seen in practicum, average number of sessions per client, number of client no shows or cancellations, primary supervisor, or practicum instructor.

Significant differences regarding the background information of trainees across semesters were discovered. Specifically, this information was related to counseling coursework completed both prior to and concurrent with the semester of practicum study

in which the study data was collected. Those trainees who participated in the study during the summer semester had completed more counseling courses prior to participating in the study than did trainees participating during the fall or spring semesters ($F = 5.36$, $df = 2$, $p < .05$). However, trainees participating in the study during the summer semester were taking significantly fewer courses concurrent with their practicum experience than were trainees in either the fall or spring semesters of the study ($F = 7.28$, $df = 2$, 17 ; $p < .01$). No significant differences were found regarding total number of courses completed, which combined the number of courses taken prior to and concurrent with the practicum experience for trainees across all three semesters.

These differences in trainee's academic background, while significant, do not appear to have had any prejudicial effect on the outcome measures for trainees across the three semesters of data collection. These differences can most likely be attributed to seasonal influences on the university's academic calendar and will be reviewed in the discussion chapter immediately following. Semester of study therefore was not entered into future data analyses as a covariate, due to the lack of any significant differences across term for the independent and dependent study variables.

Table 6 presents the means and standard deviations of the primary study variables for the treatment and control groups. No significant differences were found between groups on the pre-test measures. Table 7 presents inter-correlations among the primary variables examined for all participants.

Table 6. Means and Standard Deviations for Primary Study Variables

Variable	Mean	SD
1. COSE ¹ Pre-Test Score		
Treatment	153.40	18.06
Control	157.80	17.91
2. COSE ¹ Post-Test Score		
Treatment	171.20	11.06
Control	167.40	18.63
3. State Anxiety Pre-Test Score		
Treatment	31.50	8.32
Control	34.90	6.31
4. State Anxiety Post-Test Score		
Treatment	30.20	9.74
Control	30.10	6.84
5. CERS ² - Observer Ratings, Post-test		
Treatment	54.10	14.95
Control	60.40	11.40
6. CSRF ³ - Observer Ratings, Post-test		
Treatment	33.50	6.70
Control	31.40	9.67

¹COSE = Counseling Self-Estimate Inventory

²CERS = Counselor Evaluation Rating Scale

³CSRF = Challenging Skills Rating Form

Table 7. Correlations for Primary Study Variables.

<u>Measure</u>	2.	3.	4.	5.	6.	7.
1. Pre-COSE ¹	.77***	-.27	-.38	.00	.06	.03
2. Post-COSE	---	-.33	-.48*	.63**	.30	.03
3. Pre-STAI, State ²		---	.50*	-.18	-.06	.07
4. Post-STAI, State			---	-.29	-.34	-.06
5. COSE Change (Residual Score Post-Pre)				---	.40	.01
6. CERS-Observer ³					---	.32
7. CSRF-Observer ⁴						---

*p<.05 **p<.01 ***p<.001

¹COSE = Counseling Self-Estimate Inventory

²STAI = State-Trait Anxiety Inventory (State scale)

³CERS = Counselor Evaluation Rating Scale, Counseling Behaviors Sub-scale

⁴CSRF = Challenging Skills Rating Form

Hypotheses

The primary hypotheses in this investigation were tested using multiple regression procedures. The dependent measure used for Hypothesis 1 was the independent observer ratings of trainees' general counseling skills using the CERS -counseling behaviors scale.

The dependent measure for Hypothesis 2, independent observer ratings of trainees' higher level counseling behaviors using the CSRF.

Hypothesis 1_a stated that treatment condition (BITE, no-BITE) would account for significant proportions of variance in trainees' scores on the measure of general counseling performance. Results of the data analysis failed to support this hypothesis. Treatment condition alone accounted for 6% of the variance in observer ratings of trainees' counseling performance, however, this figure was not significant ($p=.303$).

Hypothesis 1_b predicted that changes in counseling self-efficacy during the course of the study would significantly add to the amount of variance in trainees' scores on the measure of general counseling performance originally accounted for by treatment condition alone. This hypothesis was supported, with treatment condition and changes in counseling self-efficacy (using residual change scores) now accounting for 33% of the variance in observer ratings of trainees' counseling performance ($p < .016$).

Hypothesis 1_c predicted that changes in anxiety level would significantly add to the amount of variance in trainees' scores on the measure of general counseling performance accounted for by treatment condition and changes in counseling self-efficacy. Changes in anxiety accounted for an additional 4% of the variance, though this figure was not significant ($p = .385$). The total variance in observer ratings of trainees' general counseling performance accounted for by the variables in hypothesis 1 was 37%. The results of these analyses are presented in Table 8.

Hypothesis 2 predicted that treatment condition would account for significant proportions of variance in trainees' scores on the measure of higher-order counseling

Table 8. Multiple Regression Analysis of Relationship Between Treatment Group Membership, Changes in Counseling Self-Efficacy, Changes in Anxiety and General Counseling Performance ($N = 20$).

Variable	B	SE B	β	R^2	R^2 Change	t(3,16)	p
Treatment (bug)	6.3	6.945	.242	.06	--	1.06	.303
Self-Eff. Change ^a	.782	.295	.562	.33	.27	2.65	.016
Anxiety Change ^b	-.354	.397	-.188	.37	.04	-.89	..385

R^2 for the Full Model = .37

^aSelf-Eff. Change = Residual change score, counseling self-efficacy, from pre to post.
^bAnxiety Change = Residual change score, STAI-State, from pre to post.

Table 9. Multiple Regression Analysis of Relationship Between Treatment Group Membership, Changes in Counseling Self-Efficacy, Changes in Anxiety and Higher-Order Counseling Skills ($N = 20$).

Variable	B	SE B	β	R^2	R^2 Change	t(3,16)	p
Treatment (bug)	-2.100	3.722	-.131	.02	--	-.564	.579
Self-Eff. Change ^a	-.032	.219	-.037	.02	0	-.146	.885
Anxiety Change ^b	-.186	.298	-.161	.04	.02	-.621	.543

R^2 for the Full Model = .04

^aSelf-Eff. Change = Residual change score, counseling self-efficacy, from pre to post.
^bAnxiety Change = Residual change score, STAI-State, from pre to post.

skills (CSRF - observer ratings), and that changes in counseling self-efficacy and changes in anxiety level would significantly add to the amount of variance accounted for in trainees' scores on this measure. Data analyses failed to support Hypothesis 2, as evidenced by the results presented in Table 9.

Table 10. Treatment and Control Group Differences in Changes of Counseling Self-Efficacy Across Course of Study, Holding Constant Pre-Test COSE^a Scores (ANCOVA).

Source	Sum of Squares	df	Mean Square	F	p<
Treatment (bug)	227.56	1	227.56	2.55	.129
Pre-Test COSE	2709.42	1	2709.42	30.37	.000
Error	1516.58	17	89.21		
Model	2781.62	2	1390.81	15.59	.000
Total	4298.20	19	226.22		

R² for the Full Model = .65

^aCOSE=Counseling Self-Estimate Inventory, Pre-test

Analysis of co-variance procedures were employed to analyze the data for hypotheses 3 and 4, with trainees' pre-test counseling self-efficacy scores held statistically constant. Hypothesis 3 predicted that trainees in the BITE condition would report significantly greater increases in counseling self-efficacy than would trainees in

the control condition from Pre to Post. Data analysis supported this hypothesis ($F = 15.59$, $df = 2, 19$; $p < .001$) The results of this analysis are summarized in Table 10. Figure 2 depicts changes in trainees' counseling self-efficacy at three different data collection points.

Hypothesis 4, however, which purported that trainees in the treatment condition would report greater decreases in perceived anxiety from Pre to Post, was not supported ($F = 93.23$, $df = 2, 19$; $p = .261$). The results of this analysis are presented in Table 11.

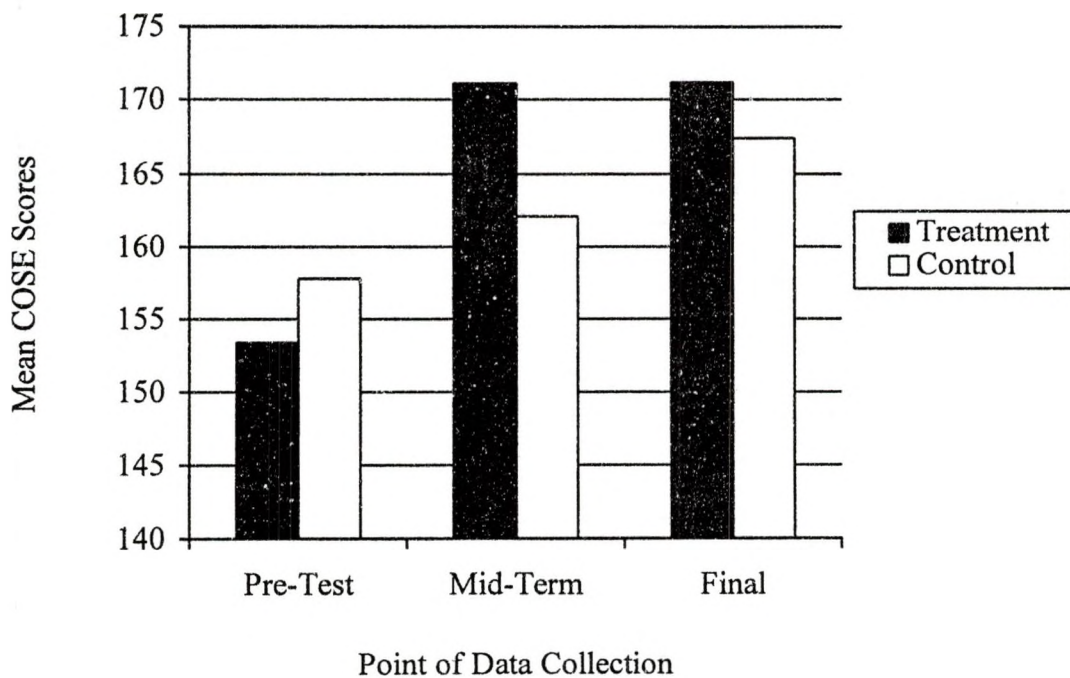


Figure 2. Counseling self-efficacy across course of study.

Exploratory Analyses

Exploratory analyses were also conducted in an attempt to provide further empirical support for propositions in the literature related to my study but which were not central to research hypotheses under investigation. The first of these analyses examined variability in ratings of counselor performance using the CERS depending on

Table 11. Treatment and Control Group Differences in Changes of State Anxiety Across Course of Study, Holding Constant Pre-Test COSE^a Scores (ANCOVA).

Source	Sum of Squares	df	Mean Square	F	p<
Bug	2.32	1	2.32	.04	.851
Pre-Test COSE	186.41	1	186.41	2.91	.106
Error	1088.09	17	64.01		
Model	186.46	2	93.23	1.46	.261
Total	1274355	19	67.08		

R² for the Full Model = .15

^aCOSE=Counseling Self-Estimate Inventory, Pre-test

the source of evaluation. Trainee (self), supervisor, and observer ratings were compared using analysis of variance procedures to determine if significant rating source variability existed. Results of these analyses failed to detect any significant differences between

self, supervisor or observer ratings for trainees' scores on the CERS counseling behaviors sub-scale ($F = 2.66$, $df = 2,57$; $p = \text{NS}$), between self and supervisor ratings on the CERS supervision sub-scale ($F = 1.08$, $df = 1, 38$; $p = \text{NS}$), or between supervisor and observer ratings on the CSRF ($F = .83$, $df = 1, 38$; $p = \text{NS}$).

The second exploratory analysis tested suppositions discussed earlier concerning the relationship between the BITE and supervisory involvement. No significant differences between trainees in the treatment and control conditions on self ratings of the CERS supervision scale were found ($F = .718$, $df = 1, 18$; $p = \text{NS}$). Analysis of supervisor ratings of trainees' supervisory involvement using the CERS supervision scale also failed to produce significant differences ($F = 1.01$, $df = 1, 18$; $p = \text{NS}$).

The third exploratory analysis conducted involved examination of trainees' anxiety for conducting an initial counseling session. In order to determine if the treatment group experienced less anxiety for conducting an initial counseling session, trainees' subjective ratings of anxiety at pretest were compared with subjective ratings of anxiety prior to conducting the first counseling session. Data analysis also failed to support this exploratory hypothesis. There were no significant differences in anxiety for conducting an initial counseling session between trainees in the BITE- and no-BITE conditions ($F = 1.54$, $df = 1, 18$; $p = \text{NS}$). The correlation between the single item measure of subjective anxiety and trainees' scores on the STAI-State Anxiety Scale at pre-test was .82. Therefore, the subjective anxiety estimate can be considered to have adequate concurrent validity.

Data was gathered on trainees' subjective anxiety for conducting counseling sessions throughout the course of the study. Figure 3 depicts anxiety expectations for trainees in the treatment and control groups, for each of the 10 sessions which comprised the course of the study. A review of the raw data for trainees (contained in Appendix I) revealed some different patterns of changes in anxiety across the course of my study, though the group differences were not significant. Seven of the ten trainees in the treatment condition scored higher on the STAI-State Anxiety Scale at post-test than they did on the mid-point measure (after session five) of this instrument, while nine of the 10 trainees in the control condition scored lower on the STAI-State Anxiety Scale at post test than they scored at mid-point. Four of the ten BITE trainees reported higher levels of subjective anxiety for session six than for session five (the first session after the BITE was removed for each trainee), while only one no-BITE trainee reported a higher level of subjective anxiety for session six.

The next exploratory hypothesis concerned trainees' efficacy expectations for conducting counseling sessions across the semester. The correlation between the single item measure of trainees' efficacy expectations and pre-test scores on the COSE was .13. Therefore, this measure cannot be considered a valid estimate of trainees' efficacy expectations. Reconceptualizations of this measure are discussed in the next chapter. Figure 4 represents trainees' efficacy expectations for conducting each of the ten counseling sessions during the study.

The final exploratory analysis I conducted represents an initial attempt to develop a model based on self-efficacy theory that best predicts the components of counseling

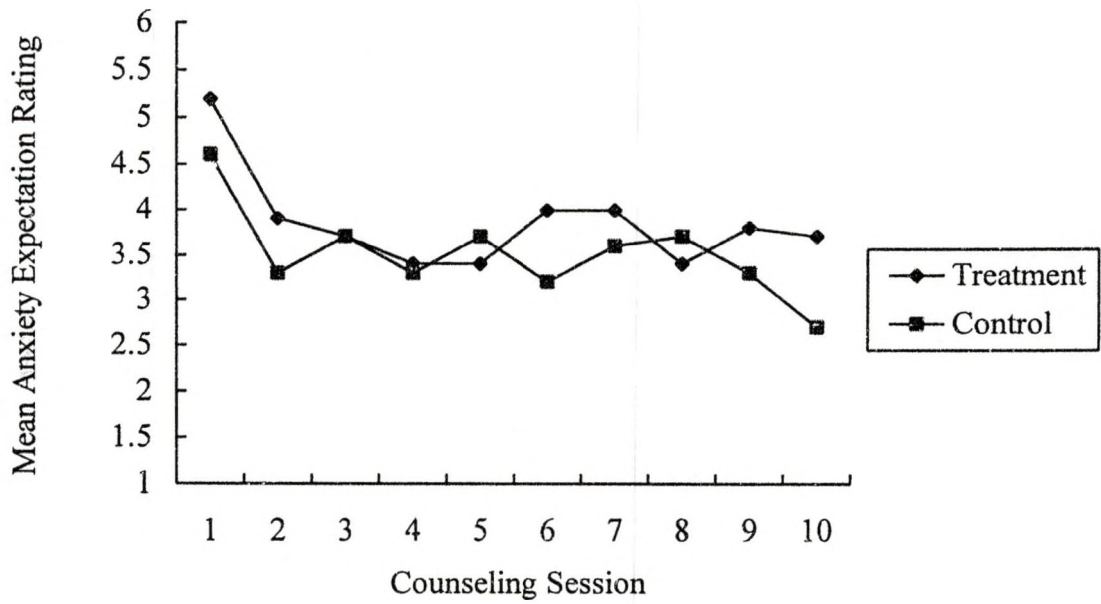


Figure 3. Mean anxiety expectations across course of study.

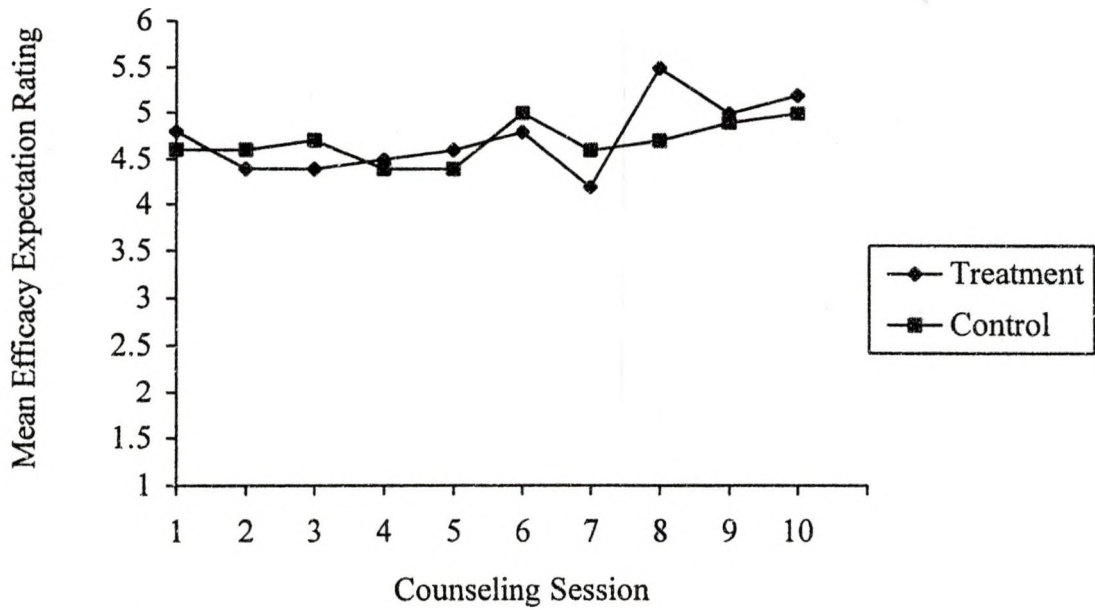


Figure 4. Efficacy expectations across course of study.

self-efficacy which are enhanced by using the BITE in counselor training. This effort incorporates BITE- group trainee data from the Trainee Value of Cues Scale (TVCS; McClure & Vriend, 1976), as well as quantifiable BITE cues transcribed from recordings of cues given during counseling sessions. Technical difficulties limited this transcription data, with tapes from two sessions during each of two of the three semesters of data collection available for transcription and inclusion in this exploratory analysis. Table 12 lists the means and standard deviations for BITE- group responses to the TVCS.

Table 12. Mean Ratings for TVCS Item Contents

Item Content	Mean	Standard Deviation
1. Timing of Cues	5.12	.77
2. Length of Cues	5.12	.77
3. Formulation/Wording of Cues	5.35	.69
4. Frequency of Intervention	5.42	.70
5. Clarity of Cues	5.32	.63
6. Implementation of Feedback	5.32	.63
7. Helpfulness of Feedback	5.32	.69
8. Physical Equipment	3.44	1.66

The TVCS also contains items which asked trainees to indicate which types of cues they found to be the most and least helpful during each session. Many trainees

responded to more than one item as being most or least helpful. Table 13 lists the percentage of most helpful, least helpful and non-responses (neither most nor least helpful) to each type of cue on the TVCS.

Table 13. Trainees Perceptions of Helpfulness of TVCS items.

Type of Cue	% of 'Most Helpful' Responses	% of 'Least Helpful' Responses	% Non-responses
Cues which reinforced or encouraged trainees during the session	69.2	7.7	23.1
Cues instructing trainees to clarify client statements	69.2	11.5	19.3
Cues containing explicit directions for trainees to follow	30.8	46.2	23.0
Cues which provided suggestions which trainees could choose to follow	53.8	11.5	34.7

An additional TVCS item asks the trainees to list the number of cues they recall receiving during the session. Although the study protocol required that supervisors give between 11 and 17 cues during each session, trainees on the average recalled only 9 cues being delivered. The actual mean number of cues given during the course of the study was 13.3 per session.

The BITE group consisted of 10 trainees, each of whom participated in five cued sessions, for a total of 50 cued sessions in the study. In two of these 50 sessions TVCS data suggested that the client displayed adverse effects to the cueing process. Both of these sessions were reported by the same trainee and involved the same client. After one session, the trainee reported that the client could hear the cues and told her they were distracting. Following a second session, the trainee again reported that the client could hear the cues, and that the client grinned or was startled when cues were delivered.

The final section of the TVCS allowed trainees to comment on their experience with the bug-in-the-ear during each session. Most of the comments were positive, reflecting trainees' opinions that the BITE was helpful to them during the session. A significant number of the comments did reflect trainees' frustrations related to the physical equipment used to deliver the immediate feedback. These comments will be reviewed in greater detail in the next chapter.

Transcriptions of the recordings of cues given during four sessions, two from the first semester of data collection and two from the second, show that the following percentages of cues outlined in the study protocol were delivered: (a) 60% of the cues were reinforcers/encouragers; (b) 12% were directives; (c) 16% of the cues were clarifications; and (d) 12% were suggestions. Timing cues and cues regarding feedback requested by the participants on specific counseling behavior were not represented in the feedback given during the sessions which were transcribed.

CHAPTER 5

DISCUSSION

The results of this investigation provide support for the using the BITE technique to deliver immediate feedback to counseling trainees during counseling sessions they conducted in a practicum counseling experience. Three of the four primary hypotheses under investigation were upheld, supporting the application of Bandura's (1977) self-efficacy theory to the acquisition of appropriate beginning counseling behaviors.

Implications of this study for the training and supervision of masters level counselors will be presented. Problems encountered during the investigation, as well as suggestions for improvements in implementing immediate feedback as an instructional aid in the counseling practicum will also be discussed.

In order to obtain an adequate sample size, data were collected during each of three consecutive semesters. Physical space, equipment, university staffing limitations and access to clients restricted the number of students enrolled in the counseling practicum during any given semester. Attempts to control for error effects due to this condition appear to have been successful, as statistical examination of the independent and dependent variables failed to detect differences which may have contaminated the study results.

The only differences detected between semesters was in an extra-test variable, number of classes taken concurrently with the counseling practicum. Trainees who

participated in the study during the summer semester had completed more coursework but took significantly fewer classes while participating in the study. These variables were initially examined as potential confounding variables, in that trainees who had completed more coursework prior to the practicum experience may have been better prepared to learn appropriate counseling behaviors. Also, it was conceivable that trainees who were taking more classes simultaneous with the demanding counseling practicum may have been adversely affected by the extra course load. Neither of these two possibilities seems to have occurred, as no differences between semesters were detected for the principal variables involved in the study.

Based on these results, it would appear that the course load of trainees who participated in the study during the summer term did not affect their practicum experience or study results. This may be due to the fact that courses taken during the 12 week summer term contain subject material identical to courses taken during the 16 week fall/spring semesters. Because summer courses are more condensed, most university students register for fewer courses during this term. A second possibility is that the total number of courses, represented by the sum of courses completed prior to and in conjunction with the counseling practicum, was a more salient influence on trainee performance, and trainees did not differ significantly on this variable.

Hypotheses

My first hypothesis proposed that BITE- no-BITE condition would account for a significant proportion of the variance in trainees' scores on the Counselor Evaluation Rating Scale (CERS; Myrick & Kelly, 1971), and that changes in counseling self-efficacy

and changes in anxiety levels would significantly add to the amount of variance accounted for by treatment condition alone. Although treatment condition alone did not account for a significant amount of variance on the CERS, trainees in the BITE condition demonstrated significantly larger increases in counseling self-efficacy across the course of the study than did trainees in the no-BITE condition (Hypothesis 3). Thus, treatment condition (BITE) appears to have had an indirect effect in determining the best regression equation for predicting variance in observer ratings of trainees' general counseling performance.

Further consideration of the setting and design of my study supports such an indirect effect. The trainees in the no-BITE group do not actually represent a true control condition. The structure of the setting for my study, the masters counseling practicum, requires all trainees to observe counseling sessions conducted by their peers. Thus, some contamination effect caused by the control group trainees observing their peers in the treatment condition receiving immediate feedback via the BITE is likely to have influenced the study results. In retrospect, the only way to correct for this contamination effect would have been to have two observation rooms connected to each counseling room, with the supervisor sitting alone in the second room delivering cues to the trainee in session. This would have prevented the trainees observing the session both from knowing when the counselor was receiving cues from the supervisor and what the content of those cues consisted of. Such an arrangement was not possible due to limitations on physical space of the community counseling clinic where my study was conducted.

The regression equation predicted in Hypothesis 2 also accounted for significant proportions of variance in the trainees' scores on the Challenging Skills Rating Form (CSRFB; Johnson, et. al., 1989). Compared to the effect size observed in hypothesis 1 however, BITE- no-BITE condition, changes in counseling self-efficacy and changes in trainee anxiety accounted for a much smaller amount of variance on this measure of performance. This finding suggests that receiving immediate feedback during the first five counseling sessions of the practicum was less effective for increasing advanced counseling skills among beginning counselors.

This may have been due to a combination of the nature of the trainee population under examination and the goals of the counseling practicum experience. The didactic and supervisory focus of the practicum experience was designed to promote the development of beginning counseling skills. Combining immediate feedback with didactic instruction on specific advanced counseling skills such as confrontation and immediacy may increase these behaviors in trainees who have progressed beyond the beginning stages of counselor development. Staggering the delivery of immediate feedback throughout the practicum experience could allow trainees to rehearse advanced counseling skills in sessions with the aid of immediate feedback later on in the counseling practicum when these skills are introduced. This approach is congruent with McClure and Vriend's (1976) assertion that the BITE is an excellent means of helping trainees to work on particular counseling skills.

Hypothesis 3 correctly predicted that BITE- group trainees would demonstrate significantly greater increases in counseling self-efficacy than the no-BITE trainees. An

examination of BITE- group responses to the Trainee Value of Cues Scale (TVCS; McClure & Vriend, 1976) may provide some explanation for the significant increase in counseling self-efficacy between groups. This significantly greater increase in counseling self-efficacy for the trainees receiving immediate feedback via the BITE may be especially robust, given the probable contamination effects caused by the control group trainees observations of their peers' counseling sessions when immediate feedback was given, as discussed above.

Trainees receiving immediate, in-session feedback believed that cues which reinforced or encouraged during the session were most helpful. According to self-efficacy theory, successful performance accomplishments have the most powerful influences on an individual's perceptions of self-efficacy (Bandura, 1977). The successful performance accomplishments in this study were the trainees' counseling behaviors exhibited in the session. Trainees in both groups experienced successful performance accomplishments during the counseling practicum and received reinforcement for these successes. However, the significant difference in BITE- trainees' changes in counseling self-efficacy provides support for the value of the immediacy of this feedback.

Examination of the trainees' changes in counseling self-efficacy as presented in Figure 2 provides important guidelines for counselor educators planning to incorporate immediate feedback delivered through the BITE into live supervision training models. Almost all of the changes in counseling self-efficacy experienced by the trainees in the BITE condition occurred from sessions one through five, when trainees were receiving

immediate feedback. In contrast to this finding, the no-BITE group trainees demonstrated more steady, incremental increases in counseling self-efficacy over the course of the study. Failure of the treatment group trainees to demonstrate noticeable increases in counseling self-efficacy after immediate feedback was removed from their counseling sessions may reflect a period of adjustment to conducting sessions without immediate feedback.

The design of the current study attempted to allow trainees this period of adjustment following the removal of the BITE in order to facilitate advancement to the next level of counseling training which utilizes more traditional supervision approaches, such as group supervision and audio tape review. The lack of increase in counseling self-efficacy for the BITE- trainees during phase two of my study could be an indication that measures taken to control trainee dependency on the immediate feedback were not entirely successful. Counselor educators are therefore again urged to consider staggering the delivery of immediate feedback during sessions throughout the counseling practicum to counteract this post-BITE adjustment period. This could help further reduce any possible dependency effects counseling trainees experience with regard to BITE feedback.

Hypothesis 4 predicted that immediate feedback delivered through the BITE would lower trainee anxiety. This hypothesis was not supported, as BITE- trainees did not experience significant decreases in anxiety when compared to no-BITE trainees. Although there was notable variability in trainees anxiety change scores within the BITE- condition, it appears that receiving immediate feedback during counseling sessions did

not significantly reduce their emotional arousal over the course of the counseling practicum. This challenges an earlier descriptive report on the advantages of using the BITE. Boylston and Tuma (1982) reported that the BITE lowers the initial encounter anxiety of the novice child/adolescent therapist. This contradiction in findings may be explained by the fact that the earlier report (Boylston & Tuma, 1982) was not an empirical investigation, or by the fact that the novice counselors in my investigation were training almost exclusively with adult clients.

The lack of significant differences in anxiety change scores during the course of this study may be misleading, reflecting limitations of the study's design rather than an absence of a true effect. The anxiety measures used in this investigation asked trainees to estimate their anticipatory anxiety prior to beginning the session. In retrospect, it may have been wiser to obtain a measure of trainees' anxiety during the counseling session, using a physiological measure of anxiety to record the most accurate level of trainees' emotional arousal. Another option would have been to include a physiological measure of anxiety in addition to the measures which were used, in order to understand anxiety from a multidimensional (cognitive-physiological) rather than unitary perspective. Although this may present a significant methodological challenge, future investigations should consider incorporating this adjustment.

Live supervision by its very nature lends itself to increased physiological arousal and self-reported anxiety in counselor trainees, due to observation of the novice counselor's performance by supervisors, instructors and peers (Bowman, Roberts, & Giesen, 1978; Schauer, Seymour, & Green, 1985). Incorporating the use of the BITE in

this setting using cues specifically to address the trainees' emotional arousal may be more effective. Data from the TVCS supports this, as trainees in the treatment condition reported that the most helpful cues were those which reinforced or encouraged during the session, and Cohn (1973) reports the value of the BITE in allowing counselors to feel as though they are not alone. More empirical investigations on the relationship between immediate, in-session feedback and emotional arousal as influences on counseling self-efficacy are warranted.

Although there were no significant group differences with respect to changes in anxiety levels, an examination of each individual trainee's anxiety scores may lead to a better understanding potential anxiety related to receiving immediate feedback via the BITE. Subjective anxiety self-ratings for the sixth session demonstrate some interesting differences between trainees in this regard. The sixth session represented the first session of phase two for each trainee. For trainees in the treatment group, session number six was their first session conducted without the BITE feedback from the supervisor. For trainees in both treatment conditions, session six was the first session following the collection of the mid-point measures. All trainees' sixth session was also supervised by their primary group supervisors. Of particular interest is the fact that nine of the ten trainees in the no-BITE condition reported lower or identical levels of subjective anxiety for session six than they did for session five. In the BITE- condition, only three of the trainees reported lower levels of subjective anxiety for session six compared to session five. Three BITE- trainees reported no difference in subjective anxiety for sessions five and six. Four BITE- trainees reported greater anxiety for session six than for session five,

suggesting that removing the immediate feedback may have contributed to their increased anxiety at this point in the study.

Another interesting difference between trainees in the two conditions is apparent when reviewing individual scores on the STAI-State Anxiety Scale. Nine of the ten trainees in the no-BITE condition demonstrated less state anxiety following session 10 (post) than they did after session five (mid). In comparison, seven of the ten trainees in the BITE condition scored higher on the state anxiety measure at post test than they had scored at mid-point. Though the group differences were not significant on these measures, the individual differences reported by trainees may provide clues about how some people adjust to the removal of the immediate feedback. More research in this area should contribute to our understanding of possible connections between anxiety and using the BITE in counselor training.

Exploratory Analyses

The first of the exploratory analyses conducted sought to confirm previous reports which indicated that significant variability in measures of counseling outcome exist based on the source of evaluation (Borman & Ramirez, 1975; Benshoff & Thomas, 1992; Fuqua, Johnson, Newman, Anderson, & Gade, 1986). My findings failed to confirm this, as no significant differences were found between sources on any of the measures of counseling behaviors. This means that trainees, supervisors and independent observers in this investigation consistently evaluated trainees' counseling performance.

Previous reports indicated that the BITE heightens supervisory involvement for beginning therapists (Boylston & Tuma, 1982; McClure & Vriend, 1976). This assertion

was not supported by the analysis of either self or supervisory ratings on the CERS supervision scale. This may have been due to the fact that reports which claimed heightened supervisory involvement with the BITE were not based on empirical data but rather reflected the authors' perceptions of heightened supervisory involvement which were inaccurate. These previous reports of heightened supervisory involvement may actually apply to supervisors' experience and not counselors' perceptions, as using the BITE obviously requires extra attention, time and effort on the part of the supervisor. Finally, the extensive supervisory involvement for trainees receiving immediate feedback with the BITE may refer to dynamics of the supervisory relationship inadequately assessed by the measure of supervisory involvement used in my study.

The next exploratory analysis discovered no significant differences between BITE- and no-BITE trainees' anxiety for conducting an initial counseling session. Previous reports in the literature regarding this issue were mixed. The results of this investigation conflict with accounts which indicated that the BITE helps trainees to be more relaxed and spontaneous during initial sessions (Boylston & Tuma, 1982; McClure & Vriend, 1976). Other narrative accounts proposing that when using the BITE trainees experience initial anxiety which dissipates after a few sessions (Korner & Brown, 1952; Salvendy, 1984; and Sanders, 1966) were also not confirmed here, as trainee anxiety levels prior to conducting any of the 10 sessions during the course of the investigation did not significantly differ.

One possible explanation for lack of significant differences between BITE- and no-BITE trainee anxiety for conducting an initial counseling session may be that trainees'

anxiety prior to conducting counseling sessions is due to observation effects associated with live supervision (Bowman, Roberts, & Giesen, 1978; Schauer, Seymour, & Green, 1985). My findings indicated that receiving immediate feedback during the session had no noticeable effect on this anxiety. The limitations of my study reported above also would apply to this finding, in that physiological measures of trainees' anxiety during the counseling sessions as opposed to measures of anticipatory anxiety collected prior to the sessions may have produced different results.

The next exploratory analysis concerned trainees' efficacy expectations for conducting counseling sessions across the semester. As was the case with the previous analysis of anxiety expectations, BITE- and no-BITE trainees' efficacy expectations did not significantly differ for any of the 10 sessions conducted during the course of the investigation. The single-item measure of efficacy expectation composed for this study does not appear to represent an abbreviated estimate of trainees' counseling self-efficacy, as evidenced by the low correlation between this measure and the COSE ($r = .17$). This suggests that this one-item measure, "How confident are you that you will be able to exhibit appropriate counseling behaviors during this session", did not adequately capture trainees' perceptions of self-efficacy for counseling skill development. In retrospect, this makes sense theoretically in that "self-efficacy" is not synonymous with "confidence", because the theory suggests that self-efficacy is a multidimensional concept.

Thus it appears that the single-item measure of efficacy expectation is actually measuring a different concept, perhaps "confidence" in one's ability to exhibit appropriate counseling behaviors. Further evidence suggesting that the single-item

efficacy expectation measure and the COSE are measuring different constructs can be found in examination of these two scores throughout the course of the counseling practicum. While trainees' counseling self-efficacy as measured by the COSE did change significantly, trainees' "confidence" remained relatively static across the 10 counseling sessions.

The final exploratory analysis involved an initial attempt to develop a theoretical model which best explained the components of counseling self-efficacy enhanced by using the BITE in conjunction with live supervision in counselor training. Data from the Trainee Value of Cues Scale (TVCS; McClure & Vriend, 1976) which reflects important information about BITE group trainees' experience of receiving immediate feedback during counseling sessions was analyzed to accomplish this.

The counselor trainees in my study do not appear to have experienced any significant adverse effects of receiving immediate feedback during counseling sessions. Data presented in Table 8 show that trainees reported positive experiences with most aspects of the BITE process, including the timing of interventions, length, clarity and formulation of cues, frequency of intervention and the implementation and helpfulness of feedback received. The only exception to this dealt with trainees' experience with the physical equipment used to deliver the in-session feedback. These difficulties do not seem to have negatively affected the trainees' experiences with the BITE, and any negative effects on clients appears to have been minimal, with one trainee reporting session disruption on two occasions with the same client due to equipment difficulties.

The average number of cues delivered to trainees across the course of the study was 13.3, though when asked to recall the number of cues they received the trainees' average response was nine cues. This discrepancy may suggest that trainees did not perceive the immediate feedback as disruptive to conducting counseling sessions as the actual number of cues delivered may have suggested. This is consistent with previous accounts of the BITE (Cohn, 1973; Korner & Brown, 1952), which report that trainees become adept at dividing their attention between events occurring in the session and the feedback they receive via the BITE.

A careful review of Table 9 indicates that trainees believed cues which reinforced or encouraged them during the session were most helpful. This perception is consistent with the theoretical model proposed in Table 5 to explain the benefits of immediate feedback and also provides an important theoretical explanation for the BITE trainees' significantly greater increases in counseling self-efficacy during the study. Cues which reinforced and encouraged the trainee provided immediate enhancement of the trainee's successful performance accomplishments.

According to self-efficacy theory (Bandura, 1982), performance accomplishments are the most powerful influence on an individual's self-efficacy. Performance desensitization and exposure is one means by which performance accomplishments are induced. Cues which reinforced or encouraged appear to have desensitized BITE trainees during their counseling sessions. Receiving immediate reinforcement of appropriate counseling behaviors appears to have strengthened the BITE trainees' mastery expectations more significantly than the delayed reinforcement of appropriate counseling

behaviors strengthened mastery expectations for the no-BITE trainees. Cues which reinforced or encouraged trainees also reflected verbal persuasion, another important influence on an individual's self-efficacy. As was hypothesized, the immediacy of the feedback delivered using the BITE directly enhanced trainees' increases in counseling self-efficacy.

Trainees ranked cues which instructed them to clarify client statements as the next most helpful type of immediate feedback received. From this I conclude that the clarifications then allowed the trainees to better understand what the client was actually saying to them in the session. The supervisor's instruction for the trainee to clarify may have resulted in a correction of the trainees' initial interpretation of client statements, thereby producing a trainee modeling effect, which is another means of inducing performance accomplishments (Bandura, 1982).

Self-instructed performance is the third means by which performance accomplishments are induced according to self-efficacy theory. In my study trainees ranked cues which provided suggestions for them to follow in sessions as the next most helpful type of immediate feedback received. While suggestive cues from the supervisor do not exactly constitute self-instructed performance, a parallel relationship does seem to exist, as reflected in the wording of these cues delivered to trainees. Supervisors delivered all suggestion cues to trainees beginning with the phrase, "You may want to.....(suggestion)". Delivering suggestion cues in this fashion allowed the trainee to make the final decision whether or not to incorporate the supervisor's cue. This provides the connection between suggestion cues and self-instructed performance.

Suggestion cues providing directions for trainees to explore in counseling with their clients also reflected the dimension of verbal persuasion, another influence on self-efficacy. Trainees in a previous investigation of the BITE (McClure & Vriend, 1976) also found suggestion cues as particularly helpful.

Trainees ranked cues containing explicit directions for them to follow as least helpful. This could be reflecting an important dynamic of the supervisory relationship between BITE trainees and supervisors. Previous literature on the BITE has discussed the issue of trainee resistance to immediate feedback from supervisors, though evidence for this is conflicting. McClure & Vriend (1976) report no significant reluctance or resistance in the trainees. However, Boylston & Tuma (1982) and Salvendy (1984) observed trainee resistance to immediate feedback during the early parts of the experience. This is consistent with my findings, as the majority of trainees who ranked directive cues as least helpful appeared to do so after their first or second session receiving immediate feedback, with the majority of responses listing directive cues as most helpful occurring after the fourth or fifth sessions of immediate feedback.

Trainees were exposed to different types of cues during the orientation to the BITE procedures. The wording of directive cues was much more explicit than the wording of the suggestion cues discussed above, in that trainees were required to follow the supervisor's instruction. Thus, the orientation period which was designed to familiarize the BITE trainees with immediate feedback procedures also seems to have somewhat increased initial trainee resistance to using the BITE.

Two other types of cues were also used in delivering immediate feedback. These were timing cues (e.g., cues to take the consultation break or end the session), and cues delivered to trainees consisting of specific feedback they requested on particular counseling skills. These two categories were not included on the TVCS, as they were idiosyncratic to specific situations and not offered to all trainees.

Transcriptions of the immediate feedback delivered to trainees was intended to serve as an additional source of information for developing a theoretical model which best predicts the components of counseling self-efficacy enhanced by using the BITE in conjunction with live supervision in counselor training. Unfortunately, technical difficulties experienced during data collection limited the availability of this information to two immediate feedback sessions conducted during each of the first two semesters of data collection. From these transcriptions, however, it appears that the frequency of the types of cues delivered closely parallels trainees' rankings of helpfulness of cues received. Cues which reinforced or encouraged, ranked by trainees as most helpful, were also the most frequently delivered cues in the sample of transcribed feedback available. Cues which provided clarifications, ranked by trainees as the second most helpful type of cues, occurred with the next most frequency, followed by suggestions cues and direction cues. Any conclusions drawn from this would be limited, however, as no feedback from sessions conducted during the third semester of data collection were available.

Limited availability of transcribed feedback was not the only equipment-related difficulty experienced during the study. The final section of the TVCS allowed trainees to comment on their experience with the bug-in-the-ear during each session. Most of the

comments were positive, reflecting trainees' opinions that the BITE was helpful to them during the session, though problems in one particular aspect of the experience were reported by many of the BITE trainees.

One trainee reported adverse effects of the BITE on a client during two separate sessions. This represents only 4% of the 50 cued sessions where trainees reported negative effects on clients. Both of these complaints represent client distractions and disruptions which occurred following difficulties with the physical equipment used to deliver immediate feedback.

A significant number of the comments reflected several additional participants' frustrations related to the physical equipment. Observations of the supervisors and practicum instructors involved in this study confirmed the equipment difficulties experienced by some trainees in the study. Future investigators examining the BITE to deliver immediate feedback are urged to invest in wireless equipment similar to that described by Salvendy (1984) and Tentoni and Robb (1977).

Summary and Conclusions

Comparison of the present findings with previous research on the effectiveness of using the BITE in counselor training provides mixed results. This could be explained by differences in the design of my study and prior BITE investigations, which did not assess counseling self-efficacy. I used results from the Tentoni and Robb (1977) investigation to determine power of analysis because the trainee population and setting of their investigation, i.e., graduate student counseling practicum, were identical to mine. Also,

both my study and the Tentoni and Robb investigation used independent observer ratings of final counseling sessions using the CERS counseling behaviors sub-scale.

One difference in these two studies is the type of feedback delivered to trainees during sessions. Tentoni and Robb used only the spoken word “good” as reinforcement delivered to trainees when appropriate counseling behaviors were exhibited in the session, while I used six different types of feedback without restricting these to only one word. Tentoni and Robb (1977) found significantly higher scores on the CERS for BITE trainees, compared to no-BITE trainees, while my investigation discovered significantly greater increases in counseling self-efficacy for BITE as opposed to no-BITE trainees. In contrast to Tentoni and Robb, I did not find higher CERS scores for the BITE group, though this was not one of the primary hypotheses investigated.

The results of this investigation are similar in spirit to other previous findings regarding the effectiveness of using the BITE to deliver immediate feedback. These include previous findings that using the BITE to deliver immediate feedback; (a) significantly increases trainees’ empathic responses during simulated counseling interactions (Carlson, 1974; Golsan, 1976; & Reddy 1969); (b) produces relatively immediate and obvious effects in altering the trainee behaviors (Gallant, Thyer, & Bailey, 1991); and (c) allows for effective immediate reinforcement of positive trainee behaviors (McClure & Vriend, 1976).

All of the research to date on counseling self-efficacy, discussed in Chapter 2, has employed designs which involve simulated counseling settings (Friedlander & Snyder, 1983; Johnson, Baker, Kopala, Kiselica & Thompson, 1989; Larson, et. al., 1992;

Melchert, Hays, Wiljanen, & Kolocek, 1996; Reese, 1993; and Sipps, Sudgen, & Faiver, 1988). While the results of these studies support a relationship between counseling self-efficacy and counseling outcome, none have addressed specific techniques to enhance counseling self-efficacy.

The analogue designs employed in these earlier studies of counseling self-efficacy may limit the generalizability of these results to actual counseling situations. The findings I discovered in my study of counseling self-efficacy were very similar to the results of two of the previous investigations listed above. Johnson et al. (1989) found that trainees' efficacy expectations significantly increased following training received during a graduate level prepracticum class. Larson et al. (1992) reported in a validation study of the COSE that trainees' pretest counseling self-efficacy scores and trait anxiety accounted for 26% of the variance in measures of counseling performance. Larson et al. (1992) also reported that trainees' counseling self-efficacy scores increased during a semester of counseling practicum using a live supervision model, though small sample size restricted statistical analysis of this finding. My study found that treatment condition (BITE-, no-BITE), changes in counseling self-efficacy, and changes in trainee anxiety accounted for 37% of the variance on the measure of general counseling behaviors.

I propose that my investigation supports extending the generalizability of the findings of these previous studies on counseling self-efficacy from simulated to actual counseling sessions. I believe the setting for my study, the community counseling clinic of the counseling practicum, more adequately captures the essence of self-efficacy theory as applied to the development of appropriate skills among counselor trainees. My

investigation examined the concept of self-efficacy in actual counseling relationships, as opposed to the hypothetical, video-taped or role-played counseling settings used in prior studies of counseling self-efficacy. In addition, the current investigation supported the BITE as a specific, theoretically consistent technique for enhancing counseling self-efficacy among masters degree counselors in training.

In sum, this investigation supports a theoretical link between self-efficacy theory and the live supervision of masters degree counselors in practicum training using the BITE to deliver immediate, in-session feedback. In this setting, counseling trainees exhibited general counseling behaviors in counseling sessions with real clients, with immediate feedback reinforcing successful performance accomplishments as they occurred. Live supervision allowed trainees to observe their peers conducting actual counseling sessions, an opportunity for vicarious experience which is impossible in traditional models of supervision. Verbal persuasion represented a significant dimension of influence on the trainee's counseling self-efficacy heightened by the immediacy of receiving support, reinforcement, instruction and suggestions from the supervisor through the BITE while in session with the client. Trainee anxiety, or emotional arousal, was also addressed in this context using verbal cues to relax and reinforce the novice counselor during the session.

Future research which focuses specifically on trainee anxiety during the session, as opposed to anticipatory anxiety prior to the start of the session, may provide additional validation for self-efficacy theory as a model which explains the benefits of immediate feedback delivered through the BITE as an instructional aid in live supervision models.

More research is suggested which closely examines specific facets of delivering immediate feedback. Such research could develop techniques for using the BITE to decrease emotional arousal and to target specific counseling skill development such as advanced or higher-order counseling skills and remedial intervention of general counseling behaviors.

APPENDICES

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Appendix A

Demographic Questionnaire

Gender _____

Age _____

Semester enrolled

in practicum _____

Ethnicity _____

Major Field of Study (Bachelor's Degree) _____

Please list all courses taken in the masters in counseling program at UND prior to this semester:

_____	_____
_____	_____
_____	_____
_____	_____

Please list all courses in which you are enrolled this semester:

_____	_____
_____	_____
_____	_____

Please describe any previous counseling related work experience (paid employment and volunteer work):

Dates	Title	Job Duties
-------	-------	------------

_____	_____	_____
_____	_____	_____

Appendix B

Counseling Self-Estimate Inventory

INSTRUCTIONS: On a scale ranging from Strongly disagree (1) to strongly agree (6) please rate the following items according to the extent to which you agree that the item reflects your actual estimate of how you would perform in a 'real' counseling situation at the present time.

- | strongly disagree | | | | | | strongly agree | |
|-------------------|----|---|---|---|---|----------------|--|
| 1 | | 2 | 3 | 4 | 5 | 6 | |
| _____ | 1. | When using responses like reflection of feeling, active listening, clarification, probing, I am confident I will be concise and to the point. | | | | | |
| _____ | 2. | I am likely to impose my values on the client during the interview. | | | | | |
| _____ | 3. | I am confident that I will respond appropriately to the client in view of what the client will express (e.g., my questions will be meaningful and not concerned with trivia and minutia). | | | | | |
| _____ | 4. | I am certain that my interpretation and confrontation responses will be concise and to the point. | | | | | |
| _____ | 5. | I am worried that the wording of my responses like reflection of feeling, clarification, and probing may be confusing and hard to understand. | | | | | |
| _____ | 6. | I feel that I will not be able to respond to the client in a non-judgmental way with respect to the client's values, beliefs, etc... | | | | | |
| _____ | 7. | I feel I will respond to the client in an appropriate length of time (neither interrupting the client or waiting too long to respond). | | | | | |
| _____ | 8. | I am worried that the type of responses I use at a particular time, i.e., reflection of feeling, interpretation, etc., may not be the appropriate response. | | | | | |
| _____ | 9. | I am sure that the content of my responses, i.e., reflection of feeling, clarification, and probing, will be consistent with and not discrepant from what the client is saying. | | | | | |

- _____ 10. I feel confident that I will appear competent and earn the respect of my client.
- _____ 11. I am confident that my interpretation and confrontation responses will be effective in that they will be validated by the client's immediate response.
- _____ 12. I feel confident that I have resolved conflicts in my personal life so that they will not interfere with my counseling abilities.
- _____ 13. I feel that the content of my interpretation and confrontation responses will be consistent with and not discrepant from what the client is saying.
- _____ 14. I feel that I have enough fundamental knowledge to do effective counseling.
- _____ 15. I may not be able to maintain the intensity and energy level needed to produce client confidence and active participation.
- _____ 16. I am confident that the wording of my interpretation and confrontation responses will be clear and easy to understand.
- _____ 17. I am not sure that in a counseling relationship I will express myself in a way that is natural without deliberating over every response or action.
- _____ 18. I am afraid that I may not understand and properly determine probable meanings of the client's non-verbal behaviors.
- _____ 19. I am confident that I will know when to use open or close ended probes, and that these probes will reflect the concerns of the client and not be trivial.
- _____ 20. My assessments of client problems may not be as accurate as I would like them to be.
- _____ 21. I am uncertain as to whether I will be able to appropriately confront and challenge my client in therapy.

- _____ 22. When giving responses, i.e., reflection of feeling, active listening, clarification, probing, I'm afraid that they may not be effective in that they won't be validated by the client's immediate response.
- _____ 23. I do not feel I possess a large enough repertoire of techniques to deal with the different problems my client may present.
- _____ 24. I feel competent regarding my abilities to deal with crisis situations which may arise during the counseling sessions - e.g., suicide, alcoholism, abuse, etc.
- _____ 25. I am uncomfortable about dealing with clients who appear unmotivated to work toward mutually determined goals.
- _____ 26. I may have difficulty dealing with clients who do not verbalize their thoughts during the counseling session.
- _____ 27. I am unsure as to how to deal with clients who appear noncommittal and indecisive.
- _____ 28. When working with ethnic minority clients I am confident that I will be able to bridge cultural differences in the counseling process.
- _____ 29. I will be an effective counselor with clients of a different social class.
- _____ 30. I am worried that my interpretation and confrontation responses may not over time assist the client to be more specific in defining and clarifying the problem.
- _____ 31. I am confident that I will be able to conceptualize my client's problems.
- _____ 32. I am unsure as to how I will lead my client towards the development and selection of concrete goals to work toward.
- _____ 33. I am confident that I can assess my client's readiness and commitment to change.
- _____ 34. I feel I may give advice.

- _____ 35. In working with culturally different clients I may have a difficult time viewing situations from their perspective.
- _____ 36. I am afraid that I may not be able to effectively relate to someone of lower socioeconomic status than me.
- _____ 37. When I initiate the end of a session I am positive it will be in a manner that is not abrupt or brusque and that I will end the session on time.

Appendix C

State-Trait Anxiety Scales

1. State Anxiety

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then circle the number to the right of the statement to indicate how you feel *right now*, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

	<u>Not at all</u>	<u>Somewhat</u>	<u>Moderately so</u>	<u>Very much so</u>
1. I feel calm	1	2	3	4
2. I feel secure	1	2	3	4
3. I am tense	1	2	3	4
4. I feel strained	1	2	3	4
5. I feel at ease	1	2	3	4
6. I feel upset	1	2	3	4
7. I am presently worrying over possible misfortunes	1	2	3	4
8. I feel satisfied	1	2	3	4
9. I feel frightened	1	2	3	4
10. I feel comfortable	1	2	3	4
11. I feel self-confident	1	2	3	4
12. I feel nervous	1	2	3	4
13. I am jittery	1	2	3	4
14. I feel indecisive	1	2	3	4
15. I am relaxed	1	2	3	4
16. I feel content	1	2	3	4
17. I am worried	1	2	3	4
18. I feel confused	1	2	3	4
19. I feel steady	1	2	3	4
20. I feel pleasant	1	2	3	4

2. Trait Anxiety

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then circle the number to the right of the statement to indicate how you *generally* feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

	<u>Not at all</u>	<u>Somewhat</u>	<u>Moderately so</u>	<u>Very much so</u>
21. I feel pleasant	1	2	3	4
22. I feel nervous and restless	1	2	3	4
23. I feel satisfied with myself	1	2	3	4
24. I wish I could be as happy as others seem to be	1	2	3	4
25. I feel like a failure	1	2	3	4
26. I feel rested	1	2	3	4
27. I am "calm, cool, and collected"	1	2	3	4
28. I feel that difficulties are piling up so that I cannot overcome them	1	2	3	4
29. I worry too much over something that really doesn't matter	1	2	3	4
30. I am happy	1	2	3	4
31. I have disturbing thoughts	1	2	3	4
32. I lack self-confidence	1	2	3	4
33. I feel secure	1	2	3	4
34. I make decisions easily	1	2	3	4
35. I feel inadequate	1	2	3	4
36. I am content	1	2	3	4
37. Some unimportant thought runs through my mind and bothers me	1	2	3	4
38. I take disappointments so keenly that I can't put them out of my mind	1	2	3	4
39. I am a steady person	1	2	3	4
40. I get in a state of tension or turmoil as I think over my recent concerns and interests	1	2	3	4

Counselor Evaluation Rating Scale

Below are some statements which are related to evaluation in supervising a counseling experience. Please consider each statement with reference to your knowledge of the counselor rated. Mark each statement in the left hand blank according to how strongly you agree or disagree. Please mark every statement. Write in +3, +2, +1, or -1, -2, -3, only, to represent the following:

- | | | | |
|----|------------------|----|---------------------|
| +3 | I strongly agree | -1 | I slightly disagree |
| +2 | I agree | -2 | I disagree |
| +1 | I slightly agree | -3 | I strongly disagree |

Counseling behaviors sub-scale:

- _____ 1. Demonstrates an interest in client's problems.
- _____ 2. Tends to approach clients in a mechanical way.
- _____ 3. Tends to talk more than client during counseling.
- _____ 4. Is sensitive to dynamics of self in counseling relationships.
- _____ 5. Is genuinely relaxed and comfortable in the counseling session.
- _____ 6. Is aware of both content and feeling in counseling sessions.
- _____ 7. Tends to be rigid in counseling behavior.
- _____ 8. Lectures and moralizes in counseling.
- _____ 9. Can be spontaneous in counseling, yet behavior is relevant.
- _____ 10. Lacks self-confidence in establishing counseling relationships.
- _____ 11. Can express thoughts and feelings clearly in counseling.
- _____ 12. Verbal behavior in counseling is appropriately flexible and varied, according to the situation.

- _____ 13. Applies a consistent rationale of human behavior to counseling.

Supervision behaviors sub-scale:

- _____ 1. Lacks sensitivity to dynamics of self in supervisory relationship.
- _____ 2. Seeks and considers professional opinion of supervisors and other counselors when the need arises.
- _____ 3. Cannot accept constructive criticism.
- _____ 4. Keeps appointments on time and completes supervisory assignments.
- _____ 5. Can deal with content and feeling during supervision.
- _____ 6. Can critique counseling tapes and gain insights with minimum help from supervisor.
- _____ 7. Is genuinely relaxed and comfortable in the supervisory session.
- _____ 8. Works well with other professional personnel.
- _____ 9. Can explain what is involved in counseling and discuss intelligently its objectives.
- _____ 10. Is open to self-examination during supervision.
- _____ 11. Lacks basic knowledge of fundamental counseling principles and methodology.
- _____ 12. Participates actively and willingly in supervisory sessions.
- _____ 13. Is indifferent to personal development and professional growth.

Overall level of functioning:

- _____ 1. Can be recommended for a counseling position without reservation.

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Appendix E

Challenging Skills Rating Form

Skill
Rating

I. Advanced Accurate Empathy

1. Reflective opening lead (e.g., reflection, paraphrase, or summary)..... _____
2. A statement of what was implied by the client..... _____
3. The implied statement was made in a tentative fashion (e.g., counselor said "perhaps," "it seems as if", etc.)..... _____

II. Self-Disclosure

4. Reflective opening lead..... _____
5. Counselor relates an experience that is in some way related to the client's feelings or expressions..... _____
6. Counselor closes with some sort of invitation to the client, to use the self-disclosure therapeutically..... _____

III. Confrontation

7. Reflective opening lead..... _____
8. Counselor describes the client's discrepancies without overloading the client..... _____
9. The description is stated tentatively..... _____

- 9. The description is stated tentatively..... _____
- 10. Counselor closes with an invitation to the client to use the confrontation therapeutically..... _____

IV. Immediacy

- 11. Reflective opening lead..... _____
- 12. Counselor uses "you" and "I" in his/her response..... _____
- 13. Counselor response descriptively relates his/her impressions of what is happening in the relationship..... _____
- 14. Counselor objectively shares his/her feelings about what is happening..... _____
- 15. Counselor invites client to respond..... _____

V. Information Giving

- 16. Counselor summarizes what the client apparently knows..... _____
- 17. Counselor checks out whether client is aware of specific information to which he/she has access (e.g., "are you aware of", "Have you heard about..." (etc.)..... _____
- 18. Counselor objectively shares the information in question without appearing to belittle the client..... _____
- 19. Counselor invites the client to respond to his/her offering (e.g.,

Appendix F

Trainee Value of Cues Scale

Name _____ Session # _____ Client Initials _____
 Date _____ Supervisor (of this session) _____

This form is designed to elicit your impression of the value of the supervisor's cues provided during your last counseling session. For each statement below, please indicate your level of agreement or disagreement.

I. Timing of Interventions: The supervisor's timing for delivering cues effectively minimized distraction for me during the session.

6	5	4	3	2	1
strongly agree					strongly disagree

II. Length of Cues: I feel the supervisor used just the right amount of words in delivering the cues.

6	5	4	3	2	1
strongly agree					strongly disagree

III. Formulation of Cues: The wording of the cues used by the supervisor allowed me to easily understand the purpose of the cues.

6	5	4	3	2	1
strongly agree					strongly disagree

IV. Frequency of Intervention: The number of cues delivered by the supervisor was not disruptive to the counseling session.

6	5	4	3	2	1
strongly agree					strongly disagree

V. Clarity of Interventions: I found the supervisor's cues to be well articulated and easy to understand.

6	5	4	3	2	1
strongly agree					strongly disagree

VI. Implementation of feedback: I feel I was able to implement the supervisor's cues with relative ease during the session.

6	5	4	3	2	1
strongly agree					strongly disagree

VII. Helpfulness of feedback: I found the supervisor's cues to be helpful and non-intrusive.

6	5	4	3	2	1
strongly agree					strongly disagree

VIII. Physical equipment: I found the physical equipment used in the delivery of cues to be comfortable and non-restricting.

6	5	4	3	2	1
strongly agree					strongly disagree

How many separate times did the supervisor intervene with cues? If you cannot remember exactly, give the approximate number.

No. of cues

Did you client display any adverse effects to your receiving cues?

yes

no

If yes, please describe:

Of the six types of cues listed below, please indicate which type you found to be the most and least helpful during this session.

Cues which reinforced or encouraged me during the session	Most helpful	Least helpful
Cues instructing me to clarify client statements	Most helpful	Least helpful
Cues containing explicit directions for me to follow	Most helpful	Least helpful
Cues which provided suggestions which I could choose to follow	Most helpful	Least helpful

Please use the remaining space to comment on your experience with the bug-in-the-ear during this session (positive or negative effects on client, self, etc.)

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Appendix G

Supervision Schedule

Supervisory Schedule by Session

<u>Session 1</u>	<u>Session 2</u>	<u>Session 3</u>	<u>Session 4</u>	<u>Session 5</u>
<u>Blue</u> <u>Gold</u>	<u>Blue</u> <u>Gold</u>	<u>Blue</u> <u>Gold</u>	<u>Blue</u> <u>Gold</u>	<u>Blue</u> <u>Gold</u>
T ₁ =B C ₁ =G	T ₁ =B C ₁ =G	T ₁ =G C ₁ =B	T ₁ =G C ₁ =B	T ₁ =G C ₁ =B
T ₃ =B C ₃ =G	T ₃ =G C ₃ =B	T ₃ =B C ₃ =G	T ₃ =G C ₃ =B	T ₃ =B C ₃ =G
C ₂ =B T ₂ =G	C ₂ =G T ₂ =B	C ₂ =B T ₂ =G	C ₂ =G T ₂ =B	C ₂ =B T ₂ =G
C ₄ =B T ₄ =G	C ₄ =B T ₄ =G	C ₄ =G T ₄ =B	C ₄ =G T ₄ =B	C ₄ =B T ₄ =G

(G=Gold group supervisor, B=Blue Group Supervisor)

Supervisory Schedule by Treatment Condition

<u>BITE</u>		Supervisor/session				
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Blue Group	T ₁	B	B	G	G	B
Blue Group	T ₃	B	G	B	G	B
Gold Group	T ₂	G	B	G	B	G
Gold Group	T ₄	G	G	B	G	B

<u>no-BITE</u>		Supervisor/session				
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Blue Group	C ₁	B	G	B	G	B
Blue Group	C ₃	B	B	G	G	B
Gold Group	C ₂	G	G	B	B	G
Gold Group	C ₄	G	B	G	B	G

Appendix H

DAILY ACTIVITY SCHEDULE

<u>Client</u>	<u>Room</u>	<u>Appt. Time</u>	<u>Counselor Trainee</u>	<u>Super- visor</u>	<u>Session w/ this client</u>	<u>Overall Session #</u>	<u>Sessions Observed</u>
	Blue						
	Gold						
	Blue						
	Gold						
	Blue						
	Gold						

Appendix I

Raw Data Values for Primary Variables, Mid-Point Measures and Anxiety Estimates by Case

Case	Age	Gender	Pre-COS E ¹	Mid-COS E	Post COS E	Pre-Anx ²	Mid-Anx	Post Anx	CER S ³	CSR F ⁴	A ⁵ 1	A2	A3	A4	A5	A6	A7	A8	A9	A10
Treatment Group																				
1	29	F	119	178	157	27	29	39	74	41	5	5	5	4	3	3	6	4	5	5
2	25	F	170	169	175	58	28	29	67	39	7	4	4	3	4	7	5	6	5	6
3	40	F	147	182	181	22	22	20	52	30	4	2	2	2	4	3	5	2	4	2
4	27	F	154	154	169	29	45	21	63	35	5	5	5	4	3	5	4	5	4	4
5	24	M	188	202	194	27	21	23	58	28	5	2	1	4	2	5	1	4	5	3
6	34	F	144	167	171	37	32	22	73	39	6	5	4	2	2	3	4	3	3	5
7	22	M	158	159	160	24	29	32	37	33	5	5	6	5	5	5	4	3	3	3 ¹⁵⁷
8	43	F	146	167	163	50	29	43	39	41	6	5	5	5	5	4	7	3	4	4
9	34	F	160	170	177	33	21	26	35	21	5	3	3	2	2	2	2	2	2	3
10	46	F	148	163	165	38	37	47	44	28	4	3	2	3	4	3	2	2	3	2
Control Group																				
11	42	M	137	144	142	36	40	38	37	25	6	4	5	4	5	3	3	5	3	2
12	24	M	175	182	180	34	32	25	64	34	4	5	6	4	5	5	6	5	6	4
13	41	F	137	133	134	39	32	28	52	34	5	3	3	3	5	3	3	4	3	3
14	26	F	176	174	177	33	33	29	62	56	4	3	2	2	4	2	2	2	3	2
15	45	F	148	144	161	33	36	33	52	23	6	4	4	4	4	4	5	4	4	4
16	44	F	155	181	184	41	31	21	76	35	4	3	5	6	3	2	6	5	3	2
17	28	F	187	173	193	20	25	22	60	28	5	3	4	2	3	3	2	2	2	4
18	37	F	163	162	172	37	36	32	71	29	4	3	3	4	3	3	3	3	2	2
19	23	F	162	172	173	43	35	43	61	25	5	2	2	2	2	5	3	4	4	2
20	31	M	138	156	158	33	33	30	70	25	3	3	3	2	3	2	3	3	3	2

¹COSE = Counseling Self-Estimate Inventory

⁴CSR F = Challenging Skills Rating Form (Johnson, et. al., 1989)

²Anx = State-Trait Anxiety Inventory, State Scale

⁵A = Subjective anxiety estimate (number indicates session)

³CERS - Counselor Evaluation Rating Scale (Myrick & Kelly, 1971), Counseling Behaviors

REFERENCES

- Alderfer, C. (1983). The supervision of the therapeutic system in family therapy. Unpublished manuscript.
- Baker, S. B., Scofield, M. E., Clayton, L. T. & Munson, W. W. (1984). The effects of teaching basic counseling competencies through brief microskills versus mental practice training. Counselor Education and Supervision, 23, 71-82.
- Bandura, A. (1956). Psychotherapist's anxiety level, self-insight, and psychotherapeutic competence. Journal of Abnormal and Social Psychology, 52. 333-337.
- Bandura, A. (1977). Self-efficacy: Toward a Unifying Theory of Behavior Change. Psychological Review, 84(2), 191-215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. American Psychologist, 37(2), 122-147.
- Bandura, A. (1986). Social foundations of thought and action. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.
- Bandura, A., Adams, N. E., Heady, A. B., & Howells, G. N. (1980). Tests of the generality of self-efficacy theory. Cognitive Therapy and Research, 4(1), 39-66.
- Bandura, A. & Barab, P. G. (1973). Processes governing disinhibitory effects through symbolic modeling. Journal of Abnormal Psychology, 82, 1 - 9.
- Barak, A. & LaCrosse, M. B. (1977). Comparative perceptions of practicum counselor behavior. Counselor Education and Supervision, 16. 202-208.

Bauman, W. (1972). Games counselor trainees play: Dealing with trainee resistance. Counselor Education and Supervision, 11, 251-256.

Benshoff, J. M., & Thomas, W. P. (1992). A new look at the Counselor Evaluation Rating Scale. Counselor Education and Supervision, 32(1), 12-22.

Bergin, A. (1966). Some implications of psychotherapy research for therapeutic practice. Journal of Abnormal Psychology, 71, 235-246.

Bergin, A., & Solomon, S. (1963). Personality and performance correlates of empathetic understanding in psychotherapy. American Psychologist, 18, 393.

Bernard, J. M. (1979). Supervisory training: A discrimination model. Counselor Education and Supervision, 19, 60-68.

Beverage, P. (1989/1991). The relationship of evaluation in counseling supervision and counselor self-efficacy. (Doctoral Dissertation, University of Virginia, 1989). Dissertation Abstracts International, 51, 2982A.

Blumberg, A. (1970). A system for analyzing supervisor-teacher interaction. In A. Simon & G. Boyer (Eds.), Mirrors for behavior, (vol. 3). Philadelphia: Research for Better Schools.

Borders, L. D., & Fong, M. L. (1989). Ego development and counseling ability during training. Counselor Education and Supervision, 29(2), 71-83.

Borman, C. A., & Ramirez, C. (1975). Evaluating counseling practicum students. Counselor Education and Supervision, 15, 48-54.

Bowman, J. T., Roberts, G. T., Giesen, J. (1978). Counselor trainee anxiety during the initial counseling interview. Journal of Counseling Psychology, 25 (2), 137-143.

Bowman, J. T., & Roberts, G. T. (1979). Counselor trainee anxiety during counseling. Journal of Counseling Psychology, 26 (1), 137-143.

Bowman, J. T. (1980). Effect of supervisory evaluation on counselor trainees anxiety. Psychological Reports, 46, 754.

Boylston, W. H, and Tuma, J. M. (1982). Training of mental health professionals through the use of the 'bug-in-the-ear". American Journal of Psychiatry, 129 (1), 124-127.

Bozarth, J. D., & Grace, D. P. (1970). Objective ratings and client perceptions of therapeutic conditions with university counseling center clients. Journal of Clinical Psychology, 26, 117-118.

Brooks, R. S., & Hannah, E. P. (1966). A tool for clinical supervision. Journal of Speech and Hearing Disorders, 31, 383-387.

Bubenzer, D. L., West, J. D. & Gold, J. M. (1991). Use of live supervision in counselor preparation. Counselor Education and Supervision, 30(4), 301-308.

Byng-Hall, J., & Campbell, D. (1981). Resolving conflicts in family distance regulation: An integrative approach. Journal of Marital and Family Therapy, 7, 321-330.

Carkhuff, R. R. (1969). Helping and human relations: Practice and research. New York: Holt, Rinehart and Winston.

Carlson, K. W. (1974). Increased verbal empathy as a function of feedback and instruction. Counselor Education and Supervision, 13, 208-213.

Cohn, B. (1973). Absentee-cueing: a technical innovation in the training of group counselors. Educational Technology, 13, 61-62.

Costa, L. (1994). Reducing anxiety in live supervision. Counselor Education and Supervision, 33(2), 30-40.

Crawford, R. W. (1993). Bug-in-the-ear revisited: Type of supervision directives, trainee CPI personality dimensions, and ratings of supervision effectiveness. (Doctoral Dissertation, East Texas State University). Dissertation Abstracts International, 54, 4359A.

Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. Journal of Consulting Psychology, 24, 349-354.

Dodenhoff, J. T. (1981). Interpersonal attraction and direct-indirect supervisor influence as predictors of counselor trainee effectiveness. Journal of Counseling Psychology, 28, 47-52.

Dodge, J. (1982). Reducing supervisee anxiety: a cognitive-behavioral approach. Counselor Education and Supervision, 23, 55-60.

Dowd, D. E., & Blocher, D. H. (1991). Effects of immediate reinforcement and awareness of response on beginning counselor behavior. Counselor Education and Supervision, 13(3), 190-197.

Dunnewold, A. L. (1982). Effect of type of feedback on counselor self-efficacy, self-esteem, anxiety, and performance in a supervision analogue. Dissertation Abstracts International, 43(05), 1611A. (University Microfilms No. AAC 8222079).

Dymond, R. F. (1954). Adjustment changes over therapy from self-sorts. In Rogers, C R. and Dymond, R. F. (Eds.), Psychotherapy and personality change. Chicago: Chicago University Press.

Educational Testing Services (1988). Graduate Record Examination information bulletin. Princeton, NJ: Author.

Ekstein, R., & Wallerstein, R. S. (1972). The teaching and learning of psychotherapy (2nd ed.). New York: International Universities Press.

Emener, W. (1973). A pre-practicum laboratory experience. Counselor Education and Supervision, 11, 213-220.

Fenell, D. L., Hovestadt, A. J., & Harvey, S. J. (1986). A comparison of delayed feedback and live supervision models of marriage and family therapist clinical training. Journal of Marriage and Family Therapy, 12(2), 181-186.

Freeman, B., & McHenry, S. (1996). Clinical supervision of counselors in training: A nation-wide survey of ideal delivery goals and theoretical influences. Counselor Education and Supervision, 36(2).

Friedlander, M. L., & Snyder, J. (1983). Trainees' expectations for the supervisory process: Testing a developmental model. Counselor Education and Supervision, 22, 343-348.

- Fitts, W. H. (1988). Manual: Tennessee Self-Concept Scale. (Rev. ed.). Nashville, TN: Counselor Records and Tests.
- Fitzgerald, L. F., & Hubert, L. J. (1987). Multidimensional scaling: Some possibilities for counseling psychology. Journal of Counseling Psychology, 34, 469-480.
- Fuqua, D., Newman, J. L., Scott, T. B., & Gade, E. M. (1986). Variability across sources of performance ratings: Further evidence. Journal of Counseling Psychology, 31, 249-252.
- Gallant, J. P., & Thyer, B. A. (1989). the 'bug-in-the-ear' in clinical supervision: A review. Clinical Supervisor, 7(2-3), 43-58.
- Gallant, J. P., Thyer, B. A. & Bailey, J. S. (1991). Using bug-in-the-ear feedback in clinical supervision: Preliminary evaluations. Research in Social Work Training, 1(2), 175-187.
- Giebelhaus, C. R. P. (1993). The mechanical third ear device: A student teaching supervision alternative. (Doctoral Dissertation, Ohio State University). Dissertation Abstracts International, 54(6), 2119A.
- Goldfried, M. R., & Robins, C. (1982). On the facilitation of self-efficacy. Cognitive Therapy and Research, 4, 361-380.
- Golsan, W. G. (1976). Study of the utilization of the "bug-in-the-ear" in a counseling training practicum. Behavioral Engineering, 3(3), 76.
- Haney, J. N., Sewell, W. R., Edelstein, B. A., & Sartin, H. H. (1975). A portable, inexpensive walkie-talkie type "bug-in-the-ear". Behavior Research Methods and Instrumentation, 7(1), 19-20.

Hansen, J. C., Moore, G., & Carkhuff, R. (1968). The differential relationships of objective and client perceptions of counseling. Journal of Clinical Psychology, 24, 244-246.

Hansen, J. C., Robins, L. & Grimes, R. (1982). Review of research on practicum supervision. Counselor Education and Supervision, 22(1), 15-24.

Heppner, P. P., Kivlighan, D. M., Burnett, J. W., Berry, T. R., Goedinghaus, M., Doxsee, D. J., Hendricks, F. M., Krull, L. A., Wright, G. E., Bellatin, A., M., Durham, R. J., Tharp, A., Kim, H., Brossart, D. F., Wang, L.F., Witty, T. E., Kinder, M.H., Hertel, J. B., & Wallace, D. L. (1994). Dimensions that characterize supervisor interventions delivered in the context of live supervision of practicum counselors. Journal of Counseling Psychology, 41(2), 227-235.

Heppner, P. P., & Roehlke, H. J. (1984). Differences among supervisees at different levels of training: Implications for a developmental model of supervision. Journal of Counseling Psychology, 30, 252-262.

Hill, W. F. (1971). The Hill Interaction Matrix. Personnel and Guidance Journal, 49, 619-621.

Hogan, R. A. (1964). Issues and approaches in supervision. Psychotherapy: Theory, Research, and Practice, 1, 139-141.

Holloway, E. L. (1984). Outcome evaluation in supervision research. Counseling Psychologist, 12(3-4), 167-174.

Holloway, E. L., & Wampold, B. E. (1983). Patterns of verbal behavior and judgements of satisfaction in the supervision interview. Journal of Counseling Psychology, 30, 227 - 234.

Hungerman, P. W. (1985). The effectiveness of the relaxation response in reducing anxiety and promoting self-actualization in counselor trainees. Dissertation Abstracts International, 46(4), 1324. (University Microfilms No. AAC 8511983).

Johnson, E., Baker, S. B., Kopala, M., Kiselica, M. S., & Thompson, E. C. (1989). Counseling self-efficacy and counseling competence in prepracticum training. Counselor Education and Supervision, 28, 205-218.

Kaplan, R. (1987). The current use of live supervision within marriage and family therapy training programs. The Clinical Supervisor, 5, 43-52.

Kaplan, T. (1991). Reducing student anxiety in field work: Exploratory research and implications. The Clinical Supervisor, 9(2), 105-117.

Kazienko, L., & Neidt, C. (1962). Self descriptions of good and poor counselor trainees Counselor Education and Supervision, 5, 55-60.

Kivlighan, D. M., Angelone, E. O., & Swafford, K. G. (1991). Live supervision in individual psychotherapy: Effects on therapists intention use and client's evaluation of session effect and working alliance. Professional Psychology: Research and Practice, 22(6), 489-495.

Klitzke, M. J., & Lombardo, T. W. (1991). A "bug-in-the-eye" can be better than a "bug-in-the-ear": A teleprompter technique for on-line therapy skills training. Behavior Modification, 15(1), 113-117.

Korner, I. N., & Brown, W. H. (1952). The mechanical third ear. Journal of Consulting and Clinical Psychology, 16, 81-84.

Lambert, M. J. (1980). Research and the supervisory process. In A. K. Hess (Ed.), Psychotherapy supervision: Theory, research, and practice. New York: Wiley & Sons, pp. 423 - 452.

Landis, L. L., & Young, M. F. (1994). The reflecting team in counselor education. Counselor Education and Supervision, 33(3), 210-218.

Larson, L. M., Suzuki, L. A., Gillespie, K. N., Potenza, M. T., Bechtel, M. A., & Toulouse, A. L. (1992). Development and Validation of the Counseling Self-Estimate Inventory. Journal of Counseling Psychology, 39(1), 105-120.

Lent, R. W., Brown, S. D., & Larkin, K. C. (1984). Relation of self-efficacy expectations to academic achievement and persistence. Journal of Counseling Psychology, 31, 356-362.

Liddle, B. J. (1986). Resistance in supervision: A response to perceived threat. Counselor Education and Supervision, 26, 117-127.

Liddle, H. A., Breunlin, D. C., & Schwartz, R. C. (Eds.). (1988). Handbook of family therapy training and supervision. New York: Guilford.

Liddle, H. A., Davidson, G. S., & Barrett, M. J. (1987). Outcomes of live supervision: Trainee perspectives. In Liddle, H. A., Breunlin, D. F., & Schwartz, R. C. (eds.), Handbook of Family Therapy Training and Supervision, pp. 386-398. New York: Guilford Press.

- Liddle, H. L., & Schwartz, R. C. (1983). Live supervision/consultation: Conceptual and pragmatic guidelines for family therapy trainers. Family Process, *22*(4), 477-490.
- Lin, T. T. (1973). Counseling relationship as a function of counselor's self-confidence. Journal of Counseling Psychology, *20*, 293-297.
- Linden, J. D., Stone, S. C., & Shertzer, B. (1965). Development and evaluation of an inventory for rating counseling. Personnel and Guidance Journal, *44*, 267-276.
- Littrell, J. M., Lee-Borden, N., & Lorenz, J. (1979). A developmental framework for counseling supervision. Counselor Education and Supervision, *19*, 129-136.
- Loesch, L. C., & Rucker, B. B. (1977). A factor analysis of the Counselor Evaluation Rating Scale. Counselor Education and Supervision, *16*(3), 209-216.
- Maddux, J. E., Shere, M., & Rogers, R. W. (1982). Self-efficacy expectancy and outcome expectancy: Their relationship and their effects on behavioral intentions. Cognitive Therapy and Research, *6*, 207-211.
- Marzillier, J., & Eastman, C. (1984). Continuing problems with self-efficacy theory: A reply to Bandura. Cognitive Therapy and Research, *8*, 257-262.
- Maskin, M. B. (1974). Differential impact of student counselors' self-concept on clients' perceptions of therapeutic effectiveness. Psychological Reports, *34*, 967-969.
- McClure, W. J. (1973). The absentee-cuing of counselors in training: an evaluation of extended and abbreviated cues and various effects of the system upon clients, counselors and trainers. Unpublished doctoral dissertation, Wayne State University.

McClure, W. J. & Vriend, J. (1976). Training counselors using an absentee-cueing system. Canadian Counsellor, 10, 120-126.

Melchert, T. P., Hays, V. L., Wiljanen, L. M., & Kolocek, A. K. (1996). Models of counselor development with a measure of counseling self-efficacy. Journal of Counseling and Development, 74(6), 640-644.

Miklich, D. R. (1975). Radio telemetry in clinical psychology and related areas. American Psychologist, 30(3), 419-425.

Montalvo, B. (1973). Aspects of live supervision. Family Process, 12, 343-359.

Morris, R. J. (1974). An inexpensive, easily built "bug-in-the-ear"/intercom system for training therapists in behavior modification techniques Behavior Therapy, 5(5), 685-686.

Mosley, D. J. (1982)/1983). A comparison of three feedback conditions using the bug-in-the-ear in counselor supervision. (Doctoral Dissertation, University of Northern Colorado). Dissertation Abstracts International, 43, 3273A.

Multon, K. D., Brown, S. D., & Lent, R. W. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. Journal of Counseling Psychology, 38, 30-38.

Myers, I. B. (1962). The Myers-Briggs Type Indicator. Palo Alto, CA: Consulting Psychologists Press.

Myrick, R. D., & Kelly (1971). A scale for evaluating practicum students in counseling and supervision. Counselor Education and Supervision, 10, 330-336.

Pennscott, W. & Brown, D. (1972). Anxiety and empathy in a counseling and guidance institute. Counselor Education and Supervision, 11, 257-261.

Pierce, R. F. (1961). Supervision of student clinicians by radio. Journal of Counseling Psychology, 8, 281-282.

Reddy, W. B. (1969). The qualitative aspects of feedback in learning empathy. Counselor Education and Supervision, 8, 176-182.

Reese, R. G. M. (1993). The influence of self-efficacy and experience upon counseling skill performance. (Doctoral Dissertation, University of Minnesota). Dissertation Abstracts International, 54, 3350A.

Rezek, P. J. (1994). The development of novice counselors' inner experiences, counseling self-efficacy, and skills. Dissertation Abstracts International, 55(05), 1228A. (University Microfilms No. AAC 9426018).

Ronnestad, M. H., & Skovholt, T. M. (1993). Supervision of beginning and advanced graduate students of counseling and psychotherapy. Journal of Counseling and Development, 71(4), 396-405.

Salmi, S. W. (1992/1993). The effects of supervisor support and client challenge on novice counselors' self-efficacy, performance and anxiety. Dissertation Abstracts International, 54(01), 536A. (University Microfilm No. AAC 9307847).

Salvendy, J. T. (1984). Improving interviewing techniques though the bug-in-the-ear. Canadian Journal of Psychiatry, 29, 302-305.

Sanders, R. A. (1966). The "bug-in-the-ear": A device for training of clinical psychologists. Paper presented at the Midwestern Psychological Association Annual Convention, Chicago, IL.

Schauer, A. H., Seymour, W. P., & Geen, R. G. (1985). Effects of observation and evaluation on anxiety in beginning counselors: A social facilitation analysis. Journal of Counseling and Development, 63, 279-285.

Selfridge, F. F., & Vander-Kolk, C. (1976). correlates of counselor self-actualization and client-perceived facilitativeness. Counselor Education and Supervision, 15(3), 189-194.

Sipps, G. J., Sudgen, G. J., & Faiver, C. M. (1988). Counselor training level and verbal response type: Their relationship to efficacy and outcome expectations. Journal of Counseling Psychology, 35, 397-401.

Sloat, K. C., & Loganbill, L. (1976). A medium-cost, high-quality "bug-in-the-ear" system. Behavior Therapy, 7(3), 409-410.

Spielberger, C. D. (1983). Manual for the State-Trait Anxiety Inventory. Palo Alto, CA: Consulting Psychologists Press.

Stiles, W. B. (1980). Measurement of the impact of psychotherapy sessions. Journal of Consulting and Clinical Psychology, 48(2), 176-185.

Stolenberg, C. (1981). Approaching supervision from a developmental perspective: The counselor complexity model. Journal of Counseling Psychology, 28, 59-65.

Stumphauzer, J. S. (1971). A low cost 'bug-in-the-ear' sound system for modification of therapist, parent, and patient behavior. Behavior Therapy, 2, 249-250.

Tentoni, S. C. & Robb, G. P. (1977). Improving the counseling practicum through immediate radio feedback. College Student Journal, 12, 279-283.

Truax, C. B., & Carkhuff, R. R. (1967). Toward effective counseling and psychotherapy: Training and practice. Chicago: Aldine-Atherton.

Tryon, W. W. (1982). Reinforcement history as possible basis for the relationship between self-percepts of efficacy and responses to treatment. Behavior Therapy and Experimental Psychiatry, 13, 201-202.

Udis, K. J. (1990). The relationship between trainee anxiety and supervision preferences of psychotherapy trainees. Dissertation Abstracts International, 52(5), 2788. (University Microfilms No. AAC 9120622).

Wallace, W. G., Horan, J. J., Baker, S. B., & Hudson, G. R. (1975). Incremental effects of modeling and performance feedback in teaching decision making counseling. Journal of Counseling Psychology, 22(6), 570-572.

Ward, C. H. (1962). Electronic preceptoring in teaching beginning psychotherapy. Journal of Medical Education, 37, 1128-1129.

Watson, D. P. (1992). Counseling self-efficacy and counseling competence: A comparative study of clergy and counselors in training. Dissertation Abstracts International, 54(03), 824A. (University Microfilms No.1 AAC 9314098).

Whiffen, R., & Byng-Hall, J. (1982). Family therapy supervision: Recent developments in practice. London: Academic Press.

- Wicas, E., & Mahan, T. (1966). Characteristics of counselors rated effective by supervisors and peers. Counselor Education and Supervision, 6, 50-56.
- Wiggins, J. D., & Giles, T. A. (1984). The relationship between counselors' and students' self-esteem as related to counseling outcomes. The School Counselor, 32, 18-22.
- Wogan, M. (1970). Effect of therapist-patient personality variables on therapeutic outcome. Journal of Consulting and Clinical Psychology, 35, 356-361.
- Wood, R. E., & Locke, E. A. (1987). The relations of self-efficacy to academic performance. Educational and Psychological Measurement, 47, 1013-1024.
- Worthington, E. L., & Roehlke, H. J. (1979). Effective supervision as perceived by beginning counselors in training. Journal of Counseling Psychology, 26, 64-73.
- Wright, L. M. (1986). An Analysis of live supervision "phone-ins" in family therapy. Journal of Marital and Family Therapy, 12(2), 187-190.
- Zarski, J. J., Bubinzer, D. L., & Walsh, D. A. (1980). Counselor effectiveness and trainee helping qualities: Another view. Counselor Education and Supervision, 20, 15-21.