

# Online Learning and the Development of Counseling Self-Efficacy Beliefs



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Joshua C. Watson

**This study examined the relationship between enrollment in online counseling courses and students' counseling self-efficacy beliefs. Results indicate that students enrolled in online courses report statistically significant higher self-efficacy beliefs than students in traditional FTF courses. Implications for research and training instruction are discussed.**

In recent years, the increasing popularity of online instruction has dramatically changed the delivery of college curricula nationwide (Artino & McCoach, 2008). The growing popularity of this medium has led some (Keeton, 2004; Tallent-Runnels et al., 2006) to project that online education will soon become the largest source of higher education in America. According to a recent study conducted at over 2,500 colleges and universities nationwide, approximately 5.6 million students were enrolled in at least one online course during the 2009 fall semester (Allen & Seaman, 2010). This figure, as noted by Allen and Seaman, represents a 21 percent increase over the number reported the previous year, the largest ever year-to-year increase in the number of students studying online. The increased student interest in online course delivery has led more and more institutions to look into adopting online instruction as the next logical step in educational delivery systems (Bejerano, 2008; O'Malley & McCraw, 1999). Highlighting this trend, 66 percent of the 4,160 degree granting postsecondary institutions in the nation offered college-level courses via online instruction during the 2006-07 academic year (National Center for Education Statistics, 2008). Only recently has this trend carried over to the field of counseling and counselor training (Albrecht & Jones, 2001; Benshoff & Gibbons, 2011; Chester & Glass, 2006).

Despite the growing interest from students in online course delivery, counselor educators traditionally have been hesitant to incorporate online learning into the counselor education curriculum (Greenidge & Daire, 2005; Karper, Robinson, & Casado, 2005). Both best practice considerations and the questionable research supporting the effectiveness of online instruction have played a role in explaining the hesitancy to apply components of online learning in counseling education and practice (Granello, 2000; Krieger & Stockton, 2004). According to Murphy, MacFadden, and Mitchell (2008), several educators have questioned whether online education is appropriate for the clinical professions where the development of basic relationship-building skills is a key curricular component. One of the common concerns often voiced has been whether or not "skills-based" or "techniques" courses could be offered sufficiently online (Wantz et al., 2003). The fundamental argument of these counselor educators is that the personal, *high touch* nature of counseling cannot adequately be simulated at a distance. However, this perspective appears to be changing slightly. While most counselor education programs have long espoused traditional, face-to-face (FTF) didactic instruction, Quinn, Hohenshil, and Fortune (2002) noted that a growing number have come to realize that the integration of technology and online instruction into their curriculum is essential in order to remain competitive.

As a result of this shift in thinking, there is now a growing interest in the use and practicality of online instructional approaches in graduate counselor training programs (Benshoff & Gibbons, 2011; Clark & Stone, 2002; Hayes & Robinson, 2000; Patrick, 2005). Several authors describing the effective implementation of online education have begun publishing their work in the counselor training literature. Translating theory into practice, complete online accredited programs have begun emerging nationwide. A review of the Council for the Accreditation of Counseling and Related Programs (CACREP) website indicates online accredited programs existing in a variety of programs including clinical

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Joshua C. Watson is an Associate professor at Mississippi State University-Meridian. Correspondence can be addressed to: [jwatson@meridian.msstate.edu](mailto:jwatson@meridian.msstate.edu).

mental health counseling (Adams State University, Capella University, Wake Forest University, Walden University); community counseling (Regent University); school counseling (Adams State University, Capella University, Regent University, Wake Forest University); marriage, couple, and family counseling (Capella University); and counselor education and supervision (Regent University). Furthermore, many other programs nationwide have begun experimenting with the inclusion of various forms of online education. According to the results of a recent study conducted among CACREP accredited counselor training programs, nearly 50 percent of the programs surveyed had already begun integrating online instruction, either totally or partially, into their existing curriculum (Wantz et al., 2003). In terms of quality of instruction, 38% of the faculty members surveyed reported an increase in program quality as a result of adding online courses to the existing curriculum. These numbers should continue to increase as counselor educators become more familiar with existing and emerging technologies, and their departments and universities provide them with the support needed to effectively offer these courses (Baltimore, 2000; Nelson, Nichter, & Henriksen, 2010; Tyler & Sabella, 2004).

In view of the fact that the use of online technology in the preparation and training of professional counselors is still a relatively new phenomenon it is not surprising that there is currently a general lack of empirical research concerning the effectiveness of using technology as a training tool in counselor education programs (Karper et al., 2005; Myers & Gibson, 1999; Nelson et al., 2010; Wantz et al, 2003). Though limited in the counselor training literature, a growing number of studies in which the effectiveness of online education is compared to traditional FTF instruction have been published in a variety of other disciplines (Ellis, Ginns, & Piggot, 2009; Lim, Kim, Chen, & Ryder, 2008). In these studies, researchers have traditionally assessed the effectiveness of online education by examining a limited set of measureable student characteristics, abilities or strategies thought to be related to either the successful completion of a single course (Waschull, 2005) or the final course grade earned (O'Hanlon, 2001). Although many academic programs evaluate student competence primarily using these outcomes, they may not represent the most salient outcomes for counseling students who must not only acquire the requisite knowledge needed to be a counselor, but also transfer that knowledge to their work with actual clients.

In addition to academic proficiency, a longstanding goal of most counselor education programs has been the fostering of students' confidence in their abilities to effectively work with the clients they intend to serve (Bernard & Goodyear, 2008; Hensley, Smith, & Thompson, 2003). Generally speaking, those counselors who are more confident in their ability to use their clinical skills in real life settings often provide a higher quality of counseling services to the clients they serve (Barnes, 2004; Bradley & Fiorini, 1999). As a result, it might be advantageous for counselor educators to measure effectiveness of various course delivery methods (e.g., FTF, online, or hybrid) by examining the beliefs their students hold in regard to their ability to become effective counselors.

## **Self-Efficacy**

One of the major approaches often used when investigating the process of gaining competence and self-confidence in particular domains of behavior has been self-efficacy theory (Bandura, 1989). Also called perceived ability, self-efficacy refers to the confidence people have in their abilities to successfully perform a particular task (Bandura, 1986; 1997). In other words, an individual may regard him or herself to be quite capable in one area, but much less capable in another. Although self-efficacy is not equivalent to competence, researchers consistently have demonstrated that higher perceived self-efficacy is related to higher performance attainment (Bandura, 1986). Thus, individuals with a strong sense of efficacy are more likely to challenge themselves with difficult tasks and to have a higher level of intrinsic motivation. In addition, these individuals typically put forth a higher degree of effort in order to reach their goals and will attribute failure to things that are in their control rather than blaming external factors.

Although self-efficacy refers to individuals' confidence in their abilities to complete tasks or reach goals, it is not based entirely on actual experience with performing tasks in the past. In addition to personal performance, vicarious learning, verbal persuasion and affective states all help facilitate the development of self-efficacy beliefs (Bandura, 1986). Furthermore, research in this field has shown that the selection of a specific self-efficacy measure that closely matches the desired task performance criteria is often a better predictor of performance outcomes than a more general self-efficacy measure (DeTure, 2004). Consequently, the focus of self-efficacy researchers has broadened in scope in recent years to include investigations of ability perceptions across several domains. Included in this body of research are studies of

counseling self-efficacy among beginning counselors.

## Counseling Self-Efficacy

Counseling self-efficacy (CSE), according to Larson and Daniels (1998), is best described as the beliefs or judgments an individual has about his or her capability to effectively counsel a client in the near future. It is an important factor related to the level of anxiety novice counselors experience as well as the amount of effort they put forth to learn advanced counseling behaviors (Larson, 1998). As a result, some counselor educators and researchers have suggested that increasing counseling trainees' self-efficacy is a worthwhile training goal (Larson et al., 1992) and that examinations of this construct should be included in both the research and evaluation of counselor competency and training effectiveness (Yuen, Chan, Lau, Lam, & Shek, 2004).

In a review of the CSE literature, numerous training interventions such as academic course work, assigned readings, classroom discussions, self-reflection, modeling, supervision and hands on experiences associated with practica and internships all have been found to help improve competency and perceptions of self-efficacy (Easton, Martin, & Wilson, 2008; Larson & Daniels, 1998). These activities provide learning experiences that facilitate task performance and vicarious learning which Bandura (1986) noted as critical to the development of self-efficacy. Although these activities have become commonplace in traditional FTF courses, their effectiveness in developing student competency when employed in online courses is unclear. Given that CSE has been demonstrated to play a central role in counselor trainee development (Stoltenberg, McNeill, & Delworth, 1998) it will be interesting to note how the implementation of new online instructional methods impacts the development of CSE beliefs among student trainees. With this in mind, the purpose of the current study was to compare the counseling self-efficacy beliefs of students enrolled in both traditional FTF and online counselor education programs. In particular, it was hypothesized that students who enrolled in traditional FTF courses would report greater perceptions of counseling self-efficacy than those enrolled in online courses.

## Method

### Participants

To recruit participants, a random sample of 1000 graduate student members of the American Counseling Association (ACA) obtained from ACA Member Services received an invitation to participate in this research study. Overall, 429 individuals responded to the invite resulting in a 42.9% response rate. A total of 56 surveys were discarded from further analysis due to significant missing data or the fact that the participant was no longer a graduate student. This resulted in a final sample size of 373 individuals being used in this study.

Of the 373 sample participants, 307 (82.3%) were women, 63 (16.9%) were males, and 3 participants (0.8%) did not indicate their gender. The average participant was 37.12 years of age (SD = 10.96). When asked to report ethnicity, 45 (12.1%) participants identified as African-American, 5 (1.3%) identified as Asian-Americans, 11 (2.9%) identified as Hispanic, 5 (1.3%) identified as Native American and 307 (82.3%) identified as Caucasian. Two hundred and ninety seven students reported working on their master's degree and 77 reported enrollment in an advanced degree (specialist or doctorate) program. To establish comparison groups, participants were asked to indicate whether or not they had taken their core skill development courses (e.g., helping skills, group counseling, assessment, practicum, internship) required for their graduate counseling program of study online. For this study, an online course was defined as one in which at least 80% of the course content was delivered via the Internet (Allen & Seaman, 2010). Using this criterion, 207 students reported no prior online enrollment and 166 reported previous online enrollment in core skill development courses.

### Instrumentation

To assess the counseling self-efficacy of counselor trainees, participants were asked to complete the *Counseling Self Estimate Inventory (COSE)*. The COSE (Larson et al., 1992) consists of 37 self-report items, most of which are worded as "I" statements, that require trainees to rate the degree to which they estimate how well they will perform as counselors in future counseling sessions. Each of the items are rated on a 6-point Likert scale with values ranging from 1 (strongly disagree) to 6 (strongly agree). To prevent the influence of response set bias, both positively and negatively worded items are included, with the negatively worded items reverse scored so that higher scores would indicate a higher estimate of

one's counseling self-efficacy.

Overall, the COSE provides scores for a single higher order factor and five second order factors which were identified through an initial exploratory factor analysis. However, in a review of the literature, Larson et al. (1992) recommended that researchers use of the single higher order factor score rather than the second order factor scores when assessing overall counseling self-efficacy. Based on their suggestion, only the full scale COSE score was used in this study. An initial report by Larson et al. noted an internal consistency of .93 for the COSE and a three-week test-retest reliability of .87. A reliability analysis conducted to examine the internal consistency of the COSE instrument for the current study yielded an alpha coefficient of .94, suggesting that the COSE was a reliable instrument for the given sample.

### **Procedures**

Following institutional review board approval, electronic invitations to participate in this study were sent to a random sample of graduate students enrolled in counselor training programs nationwide using the contact information made available by ACA member services. Included in the study invitation were a brief overview of the study and a description of what individuals would be asked to do if they chose to participate. To make access to the survey more convenient, an imbedded hyperlink was included in the electronic invitation. All individuals accessing the study site were asked initially to read an informed consent document and indicate their agreement to participate before proceeding. To protect participant anonymity, the survey did not ask for any personally identifying information. Participants were encouraged to answer as honestly as possible. The majority of participants were able to complete the survey in less than 20 minutes.

### **Data Analysis**

An analysis of covariance (ANCOVA) was computed using SPSS 16.0 to compare mean differences in CSE scores by instructional method (online vs. traditional FTF instruction) while controlling for students' previous counseling experience. Previous counseling experience was thought to be related to the dependent variable (DV) because researchers (see Larson et al., 1992) have noted a strong positive relationship between CSE and counseling experience in prior studies. Current student data also indicates that a significant number of students enrolled in online programs are working professionals (Ivey, 2011), thus the likelihood exists that many of the participants in this study may currently be working in the counseling field or have done so previously. Therefore, following Warner's (2008) recommendation that variables strongly correlated with the DV be included as covariates in any statistical model because they produce a smaller error term and a larger *F* ratio for assessing the main effect of the treatment variable, a measure of previous counseling experience (defined as any contact with clients in a professional mental health-related role) was added to the analysis. Finally, a multiple regression analysis was computed to determine the best linear combination of variables among gender, age and degree level (masters or advanced) for predicting COSE scores.

### **Results**

Before running the ANCOVA, a preliminary analysis was conducted to test the homogeneity of slopes assumption by examining the interaction between the treatment variable (instructional method) and the covariate (previous counseling experience). Results indicated that the interaction was not statistically significant,  $F(1, 369) = .498, p = .48$ , and the assumption had been met. Having satisfied the homogeneity of slopes assumption, an ANCOVA was performed to determine whether a difference in counseling self-efficacy existed between students who had completed FTF instruction and online instruction courses after controlling for the variance accounted for by previous counseling experience. The results indicate that there was a significant difference in COSE scores,  $F(1, 370) = 4.61, p = .03, \eta^2 = .02$ . A comparison of the adjusted group means, as displayed in Table 1, reveals that students who enroll in online counselor education courses self-report significantly stronger CSE beliefs. According to Cohen (1988),  $\eta^2$  effect sizes can be interpreted as being either small (.01), medium (.06), or large (.17). Using these benchmarks, the computed effect size of .02 would be categorized as small in terms of the variance accounted for in COSE scores by instructional method.

Table 1

Mean comparisons for COSE scores between the face-to-face and online courses

	N	Unadjusted		Adjusted	
		M	SD	M	SE
Face-to-Face Courses	207	169.13	20.30	169.00	1.34
Online Courses	166	173.67	18.54	173.90	1.49

Results of the multiple regression analysis indicated that the combination of gender, age, and degree level significantly predicted counseling self-efficacy,  $F(3, 369) = 16.36, p < .001$ . The  $R^2$  for this model was .12 and the adjusted  $R^2$  was .11 (see Table 2). This indicates that 12% of the variance in COSE scores was explained by the model. According to Cohen, this would be considered a medium effect.

Table 2

Multiple regression analysis summary for gender, age, and degree level predicting counseling self-efficacy scores ( $N = 373$ )

Variable	B	SE B	$\beta$	$p$
Gender	-1.82	2.57	-.04	.48
Age	.23	.09	.12	.01
Degree level	15.60	2.39	.32	.01

Note. Adjusted  $R^2 = .11$ ;  $F(3, 369) = 16.36, p < .01$ .

## Discussion

The purpose of this exploratory study was to examine whether differences in counseling self-efficacy exist between students enrolled in FTF and online core counseling skill courses after controlling for the effect of previous counseling experience. It was hypothesized that students enrolled in the online courses would self-report lower levels of counseling self-efficacy. To test this hypothesis, students enrolled in both types of courses were administered the *Counseling Self Estimate Inventory* (COSE) and their results compared. The results of an analysis of covariance suggest that students who enrolled in online core counseling skill courses as part of their training program reported stronger counseling self-efficacy beliefs than the students who were trained in traditional FTF courses when prior counseling experience was controlled, thus disproving our research hypothesis.

There are a number of explanations that can be posited for this unexpected result. For one, the results may be a function of the manner in which the data was collected. By design, the COSE is a self-report measure. As such, students are asked to give their perceptions of their abilities as a counselor. According to Kruger & Dunning (1999), there is a natural tendency for individuals to overrate their abilities in the absence of any specific skill demonstration on which to accurately judge their own level of competence. As Lepkowski, Packman, Smaby, and Maddux (2009) note, the unrealistic sense of confidence some individuals have may cause them to attempt counseling tasks for which they are not fully trained nor prepared. One of the biggest criticisms of online instruction in training counselors is that it does not afford students adequate opportunity to develop their basic counseling skills. Typically, online students have fewer structured opportunities to gain practical experience applying the skills and concepts they are learning in their courses. As a result, they may feel confident in their abilities despite the fact they lack the actual hands-on-training and experiences needed to appropriately validate their perceptions.



Another explanation could be that online instructional methods might require students to employ learning strategies that are more conducive to improving self-efficacy. Previous research suggests that both the structure and content of online courses often make them conducive to self-paced learning (Appleton & Orr, 2000; Vrasidas & McIsaac, 2000), allowing students to work at a pace that provides them with the opportunity to develop a deeper understanding of the course content (Biggs, 1999). In addition, the increased autonomy inherent in the online environment has been found to positively relate to a higher sense of intrinsic motivation in many students (Wadsworth, Husman, Duggan, & Pennington, 2007). In other words, those students who enroll in online courses may be more invested in the learning process and thus more likely to put forth the additional effort required to be successful. In so doing, they might experience a greater sense of confidence in their ability to effectively counsel clients in the future.

In terms of the multiple regression analysis performed, it was found that both age and degree level were significant predictors of students' counseling self-efficacy beliefs. Specifically, older students and those who were working on an advanced degree (specialist or doctorate level) appeared to be more confident in their counseling abilities. A possible explanation could be that these students have a greater pool of experiences, both personal and professional, to draw upon when working with clients. Melchert, Hays, Wiljanen, and Kolocek (1996) found that both level of training and clinical experience positively contributed to students reporting significantly higher self-efficacy beliefs for counseling skills. It could be that more advanced students feel increasingly comfortable dealing with a wider variety of issues and client populations than their less experienced colleagues. The fact that gender was not a significant predictor appears to support previous research on gender differences in self-efficacy. As noted by Lepkowski et al. (2009), initial gender differences found early in the training process appear to dissolve as additional experience is gained.

## **Limitations and Recommendations for Future Research**

Limitations and caveats need to be noted. First, although a significant effect for method of instruction was found, the small effect size computed could potentially mitigate the relative importance of this finding. Second, differences in teaching style of the various instructors of the students surveyed may serve as a confounding variable affecting the interpretation of these results. It could be that any differences noted in students' self-efficacy beliefs could be related more to the efforts of the instructor than the instructional platform used to deliver the course material. In this study, faculty status (full-time or part-time/adjunct) was not addressed. For many online programs adjunct faculty are employed. While many are practicing counselors and may possess more current clinical experience than their full-time educator peers, their investment in the total development of their students may be less than that of full-time faculty members who spend significantly more time training and developing students to become counseling professionals. Additionally, while some instructors may be implementing online components to their courses for the first time, others may be more experienced and thus using more advanced technologies that allow them to better simulate actual counseling experiences for students and create a more interactive and dynamic learning environment. Finally, sampling issues need to be addressed. In the current study participants were recruited from a mailing list of current graduate students provided by the American Counseling Association. When they sign up for membership, individuals have the opportunity to make their contact information available or not. Since the participants in this study were limited to students who chose to make their contact information available, complete random sampling was not possible, thus limiting the generalizability of the results.

## **Recommendations for Research and Practice**

The results of this study suggest that students enrolled in online core counseling skills courses report higher perceptions of counseling self-efficacy than those taking traditional FTF courses. While, depending on perspective, this result is encouraging for proponents of online education and suggests that further research is warranted. In particular, future researchers seeking to expand on this initial exploration should consider examining the influence of specific course content as well. In this study, students were separated into groups based on whether or not they enrolled in online core graduate counseling skills courses. There was no control for the content of these courses or the types of learning experiences they would be exposed to for either method. An additional suggestion would be that counselor educators and researchers develop a better understanding of the types of students who choose to enroll in online programs. As noted earlier, many students who enroll in online programs already have experience in their chosen profession and may

feel more comfortable and confident with their abilities as a counselor. Although this logic appears rational, research supporting this belief does not exist and should be addressed in future studies. A final suggestion would be to include students who have completed entire programs online. In this study, the majority of students in the online course group also had completed traditional FTF courses as well. As more universities begin offering complete online programs and these programs gain accreditation status, it will be interesting to note how the counseling self-efficacy beliefs of students in these programs relate to those who are enrolled in more traditional programs.

Without a doubt, the benefits of using online instruction are numerous for both educators and students. When used appropriately, it has the potential to profoundly impact and enhance counselor training and ultimately the counseling services provided to clients (Chandras, 2000). However, those wishing to integrate online elements into their courses are urged to do so cautiously. Not all courses may be suited for total online presentation. Counselor educators are therefore encouraged to be mindful of the ways in which they attempt to integrate elements of online instruction into their courses. As Bentley (2007) notes, “because counselors play a crucial role in helping individuals deal with a vast array of mental health and developmental issues, it is critically important that they are well prepared upon entering the profession to work effectively with clients and provide quality services” (p. 1). As gatekeepers for the profession, counselor educators have an ethical mandate to ensure that the students they train are not entering the profession with a sense of ability that exceeds their skill level so that they do not harm the clients they will serve. Thus, the decision to incorporate online instruction should be based on its ability to provide students with the platform to further develop their clinical skills and not simply on the novelty of the approach. As for students, they are urged to consider their own personal learning style and evaluate whether or not it is in agreement with the structure of an online format. Despite the benefits an online learning environment may provide, the evaluation of its effectiveness still remains not only a personal decision, but one that requires the attention of counselor educators, and accreditation and state licensure boards.

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