

# Examining Student Classroom Engagement in Flipped and Non-Flipped Counselor Education Courses



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Clare Merlin-Knoblich, Pamela N. Harris, Erin Chase McCarty Mason

Flipped learning is an innovative teaching approach in which students view pre-recorded video lectures outside of class, then engage in activities applying course concepts during class. By removing lecture from face-to-face class time, instructors free up time in class for students to explore and apply course content. Flipped learning is a particularly useful approach in counselor education, given the need for both content and practice in the discipline. In this study, we examined student classroom engagement in flipped and non-flipped counseling courses. Using a causal comparative method, we compared student engagement via the Classroom Engagement Inventory in four counseling theories course sections. Students in the flipped counseling courses ( $n = 30$ ) reported statistically higher classroom engagement than students in the non-flipped courses ( $n = 37$ ). These results lend additional support to the promotion of flipped learning in counselor education.

**Keywords:** flipped learning, classroom engagement, counselor education, flipped counseling courses, student engagement

Counselor educators are tasked with balancing students' need to learn course content and their need to apply that content (Gladding & Ivers, 2012; Sommers-Flanagan & Heck, 2012). In recent decades, a new teaching approach has emerged that supports counselor educators in navigating that balance—*flipped learning*. In flipped learning, students individually view pre-recorded video lectures outside of class so that time spent in class is freed up solely for application-based learning activities (Bishop & Verleger, 2013; Gerstein, 2012; Wallace, Walker, Braseby, & Sweet, 2014). This approach appears especially valuable in counselor education because it allows counseling students to learn critical content relevant to the counseling profession (e.g., counseling theories, techniques), while providing them sufficient in-class time to apply, discuss, or practice content in classroom activities (Merlin, 2016).

Moreover, flipped learning appears worth consideration given its use of both online and face-to-face learning components. Researchers in a variety of disciplines (e.g., communications, political science, social work) have examined student perceptions of online versus face-to-face (F2F) course formats (Bolsen, Evans, & Fleming, 2016; Bristow, Shepherd, Humphreys, & Ziebell, 2011; Okech, Barner, Segoshi, & Carney, 2014; Platt, Yu, & Raile, 2014; Young & Duncan, 2014). Findings from most of the studies suggest that students have positive perceptions of online learning, though a few (Bristow et al., 2011; Young & Duncan, 2014) suggest that more traditional F2F formats are preferred for some subject areas (e.g., communications) and by some types of students (e.g., working vs. non-working). Other studies suggest that blended formats, which contain a mixture of F2F teaching methods and online instruction tools, could be a balanced compromise (Brown, 2016; Nguyen, 2013; Paechter, Kreisler, Luttenberger, Macher, & Wimmer, 2013; Thai, De Wever, & Valcke, 2017). Flipped learning represents one such blended learning approach because it combines teaching and learning

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Clare Merlin-Knoblich, NCC, is an assistant professor at the University of North Carolina at Charlotte. Pamela N. Harris is an assistant professor at the University of North Carolina at Greensboro. Erin Chase McCarty Mason is an assistant professor at Georgia State University. Correspondence can be addressed to Clare Merlin-Knoblich, 9201 University City Blvd., Charlotte, NC 28223, [claremerlin@uncc.edu](mailto:claremerlin@uncc.edu).

efforts in both online spaces (via posted video lectures) and physical classroom spaces (via in-person activities; Brown, 2016).

The prevalence of flipped learning in higher education has increased since 2000, and the teaching approach has recently gained momentum in counselor education in addition to or instead of more traditional, lecture-focused approaches in non-flipped courses (Fulton & Gonzalez, 2015; Merlin, 2016; Merlin-Knoblich & Camp, 2018; Moran & Milsom, 2015). Despite this attention, no researchers have published a comparison of flipped and non-flipped courses in counselor education. In this article, we seek to fill this gap by describing the findings of a causal comparative study comparing one aspect of student experiences in flipped and non-flipped counseling courses—classroom engagement.

## **Classroom Engagement**

Classroom engagement refers to “a student’s active involvement in classroom learning activities” (Wang, Bergin, & Bergin, 2014, p. 1). Researchers have determined that the construct is comprised of three components: affective engagement, behavioral engagement, and cognitive engagement (Archambault, Janosz, Fallu, & Pagani, 2009; Fredricks, Blumenfeld, & Paris, 2004). Since the 1990s, researchers have given substantial attention to student engagement in higher education classrooms (Trowler, 2010). This focus is due in large part to the strong relationships between engagement and positive student outcomes, such as student achievement and graduation rates (Elmaadaway, 2018; Harper & Quaye, 2009; O’Brien & Iannone, 2018; Trowler, 2010). Researchers have acknowledged that student classroom engagement is a multifaceted construct impacted by multiple variables, including instructors’ behaviors with students in the classroom (Krause & Coates, 2008; O’Brien & Iannone, 2018). Thus, we chose to study the potential relationship between instructors’ use of flipped learning and student classroom engagement. In this study, we sought to understand if students reported different perceptions of their classroom engagement levels in flipped and non-flipped counseling courses. Next, we present an overview of the flipped teaching approach and its research base.

## **Flipped Learning Underpinnings**

Flipped learning is a teaching approach in which students view pre-recorded video lectures online outside of class, then meet in class for F2F learning activities in which they apply and explore course content. These activities can include group projects, discussions, skill practice, and experiential activities (Bishop & Verleger, 2013; Gerstein, 2012). Flipped classrooms are different from non-flipped classrooms in that non-flipped classrooms feature in-class lecture for all or part of each F2F class. Thus, students in non-flipped classrooms spend class time listening to an instructor lecture instead of viewing recorded material on course content outside of class and participating in activities in class (McGivney-Burelle & Xue, 2013; Murphy, Chang, & Suaray, 2016). In some non-flipped classrooms, instructors use lecture as the primary instructional approach, whereas in other non-flipped classrooms, instructors pair lecture with experiential activities in class (Cavanagh, 2011; Foldnes, 2016). Given the popularity of experiential learning in counselor education (McAuliffe & Eriksen, 2011), and for the purpose of this study, we define a non-flipped counseling classroom as one in which students engage in both in-class lecture and experiential activities when meeting F2F.

## **Flipped Learning Process**

When designing a flipped classroom, instructors complete two primary tasks. First, they create or select a pre-recorded video lecture with the essential content students need to learn. Instructors can

create such videos using screen capture software like Camtasia ([www.camtasia.com](http://www.camtasia.com)) and Screencast-O-Matic ([www.screencastomatic.com](http://www.screencastomatic.com)). These programs allow users to create videos with audio and video of an instructor explaining a presentation with slides (e.g., a PowerPoint presentation). Because experts recommend that video lectures are no more than 15–20 minutes in length, instructors must carefully select the most essential content that students would benefit from seeing and hearing explained.

After creating video lectures, instructors design a series of in-class F2F activities for their flipped classroom. In these activities, students apply, discuss, and practice the content they learned in the pre-recorded video lecture. Flipped F2F classroom activities can vary by discipline and instructor, but they often include collaborative group activities, shared projects, and practice sessions. Scholars note that although the video lectures associated with flipped learning often receive the most attention, it is actually the in-class activities that are most crucial to the student learning process (Bergmann & Sams, 2014; Merlin, 2016).

## Flipped Learning in Higher Education

As flipped learning has grown in popularity, so too has its research base. Researchers have studied a range of constructs related to the approach, including student and instructor perspectives (Gilboy, Heinerichs, & Pazzaglia, 2015; Hao, 2016; Long, Cummins, & Waugh, 2017; Nouri, 2016; Wanner & Palmer, 2015) and student outcomes (Baepler, Walker, & Driessen, 2014; Davies, Dean, & Ball, 2013; Foldnes, 2016; McLaughlin et al., 2013; Murphy et al., 2016). Researchers also have studied flipped learning in a variety of disciplines, including chemistry (Baepler et al., 2014), engineering (Kim, Kim, Khera, & Getman, 2014), public health (Simpson & Richards, 2015), pharmacy (McLaughlin et al., 2013), and information systems (Davies et al., 2013). As described below, they have consistently found positive outcomes related to flipped learning, with occasional incongruences.

Research on student perceptions of flipped learning has indicated that this teaching approach is generally enjoyed (Gilboy et al., 2015; Hao, 2016; Nouri, 2016). For example, in a sample of 142 nutrition students, 62% of participants reported preferring flipped learning to a traditional lecture format (Gilboy et al., 2015). In a sample of 240 research methods students, 75% of participants reported having positive attitudes toward flipped learning after completing flipped courses (Nouri, 2016). Moreover, in literature reviews of flipped learning research, authors concluded that student perceptions of flipped learning are mostly positive (Bishop & Verleger, 2013; Zainuddin & Halili, 2016).

In general, researchers have found higher student achievement in flipped classrooms compared to non-flipped classrooms (Baepler et al., 2014; Davies et al., 2013; Foldnes, 2016; McLaughlin et al., 2013; Murphy et al., 2016). For example, Foldnes (2016) found that the exam scores of statistics students in a flipped learning course were 12% higher compared to those in a non-flipped course. Murphy and colleagues (2016) also compared test scores in flipped and non-flipped undergraduate algebra classes and found that flipped classroom final exam scores increased 13% compared to non-flipped classroom scores.

Increased achievement in flipped classrooms may be due to increased student engagement (McLaughlin et al., 2013). Researchers have found a perceived increase in engagement in flipped classrooms from both student and instructor perspectives (Faculty Focus, 2015; Lucke, Dunn, & Christie, 2017; Simpson & Richards, 2015; Wanner & Palmer, 2015). For instance, in their study of engineering students who participated in a course before and after it was flipped, Lucke and colleagues (2017) found that students reported an increase in engagement. Instructors also noted “a substantial increase in the level of observed student engagement” after the course was flipped (p. 54). Similarly, Simpson and

Richards (2015) surveyed students who completed a flipped undergraduate health course and found that students reported that the flipped format enhanced their course engagement.

Flipped learning is a valuable instructional approach in counselor education, given its student-focused nature. Despite this relevance, research on flipped learning in counselor education is limited (Merlin, 2016). To date, researchers have published only three studies on flipped learning in counselor education. Moran and Milsom (2015) described flipped learning with 15 graduate students in a school counseling foundations course. They assessed student perceptions of the flipped course using Likert scale ratings, and students reported that in-class activities facilitated their learning more than pre-class activities. Fulton and Gonzalez (2015) studied two flipped career development courses by distributing pre- and posttests to students. They found overall increases in attitudes about career counseling. Lastly, Merlin-Knoblich and Camp (2018) conducted a qualitative case study to explore counseling student experiences in a flipped life span development course. Their participants reported that the flipped course was enjoyable, beneficial, and engaged them in learning inside and outside of the classroom.

## **Purpose and Rationale for the Study**

Previous studies about flipped learning in counselor education are useful in drawing attention to use of the teaching approach in the field (Fulton & Gonzalez, 2015; Merlin-Knoblich & Camp, 2018; Moran & Milsom, 2015). However, across these studies, researchers did not employ a comparison group to examine if flipped learning courses produce different outcomes than non-flipped courses. Given this critical variable in understanding the value of flipped learning, research is needed on the impact the approach has on counseling students compared to non-flipped teaching approaches. To fill this research gap, we chose to compare flipped and non-flipped counseling courses by examining student classroom engagement.

Classroom engagement is the amount of active involvement a student has in learning activities while completing a course (Wang et al., 2014). We chose to study classroom engagement for three reasons. First, due to our interest in comparing flipped and non-flipped counseling courses, it was imperative to measure a construct specific to the individual class setting. Student classroom engagement refers to student involvement at the classroom level, which is more specific than overall school engagement (Wang et al., 2014). Second, given the lack of research on outcomes related to flipped learning in counselor education, we sought to understand if the teaching approach appears to impact classroom engagement, which may contribute to greater student enjoyment and better comprehension of counseling concepts. Lastly, although researchers have studied classroom engagement in previous studies on flipped learning, the topic has not been widely reviewed, and a need exists for a greater understanding of how flipped learning impacts student classroom engagement (Faculty Focus, 2015; Lucke et al., 2017; McLaughlin et al., 2013; Simpson & Richards, 2015; Wanner & Palmer, 2015).

Our research question was: Do significant differences exist between student classroom engagement levels in flipped counseling course sections and non-flipped counseling course sections? We hypothesized that the classroom engagement levels of students in the flipped counseling course sections would be significantly higher statistically than those of students in the non-flipped counseling course sections.



## Method

We used a causal comparative design (Creswell & Creswell, 2018) to study student engagement in flipped and non-flipped counseling courses at a medium-sized public university in the mid-Atlantic region. In a causal comparative study, researchers compare groups by a cause, or independent variable, that has already occurred (Creswell & Creswell, 2018). In this study, the cause was a flipped or non-flipped teaching approach in counseling theories courses.

### Procedures

The university where we conducted this study has a small master's counseling program accredited by the Council for Accreditation of Counseling & Related Educational Programs (CACREP) and holds one class section for every course taught each semester. In order to compare a similar counseling course taught in both a flipped and non-flipped approach, we compared a flipped Theories for Counseling Children and Adolescents course ("experimental group") to a non-flipped Counseling Theories course ("control group") at the same university. Both courses include parallel emphases on counseling theories, as shown in Table 1. To obtain a sample large enough for inferential statistical analysis, we collected data in two subsequent years from students in two flipped Theories for Counseling Children and Adolescents courses and two non-flipped Counseling Theories courses. All courses met weekly across a 15-week fall semester.

Table 1

#### *Course Topics in Flipped and Non-Flipped Courses Studied*

<i>Flipped Theories for Counseling Children and Adolescents</i>	<i>Non-flipped Counseling Theories</i>
Psychoanalytic Counseling	Psychoanalytic Counseling
Person-Centered Counseling	Person-Centered Counseling
Gestalt Therapy	Gestalt Therapy
Adlerian Counseling	Adlerian Counseling
Reality Therapy	Reality Therapy
Cognitive Behavioral Therapy	Cognitive Behavioral Therapy
Behavior Therapy	Behavior Therapy
Solution-Focused Brief Therapy	Postmodern Approaches
Strengths-Based Counseling	Existential Counseling
Motivational Interviewing	Feminist Therapy
Play Therapy	Family Systems Therapy

We did not randomly assign study participants to course sections, but instead recruited participants already in existing groups based on the university's prescribed counseling program of study. Students in the Counseling Theories courses were in their first year and students in Theories for Counseling Children and Adolescents courses were in their second year. No participants were taking both courses at the same time. The flipped Theories for Counseling Children and Adolescents course was the only flipped course in the counseling program at the time of the study.

**Flipped course sections.** The first author taught Theories for Counseling Children and Adolescents during the first year of data collection, and the second author taught the course in the second year of data collection. Although the use of different instructors was not intentional (and instead due to hiring changes), the first and second authors used identical flipped learning approaches in an effort to ensure that the change in instructors did not impact the study results. They both used Bergmann and Sam's (2014) traditional flipped learning model when teaching their courses and each recorded their own video lectures using Screencast-O-Matic software. The instructors assigned these video lectures as homework prior to attending class. Students also were required to read selected book chapters and research articles on the course topics. To ensure compliance, the instructors asked students to answer pre-class questions about the topics online before coming to class. Furthermore, students' answers allowed the instructors to evaluate comprehension of the material prior to class and adjust class activities as needed. For example, pre-class questions often asked students to explain key concepts. If the majority of student answers revealed that they had a vague or incorrect understanding of a counseling theory, the instructor allotted more class time to addressing student misunderstanding.

During class, each instructor facilitated a range of activities to help students explore and apply course content. For example, groups of students were asked to rehearse and demonstrate counseling techniques to the class. Students also engaged in large and small group discussions about course topics. They sometimes analyzed case studies and watched videos of counseling demonstrations. Lastly, instructors frequently hosted guest speakers with expertise in the topics. Table 2 includes an example class lesson plan and corresponding assigned homework from an example flipped class the first author taught in Theories for Counseling Children and Adolescents.

Table 2

*Example Flipped Learning Lesson Plan – Theories for Counseling Children and Adolescents*

Context	Task	Time Required
Out-of-class	<i>Video lecture</i> – Gestalt and Adlerian Counseling Theories	20 minutes
	<i>Textbook chapters</i> – Gestalt Counseling, Adlerian Counseling	80 minutes
In-class	<i>Welcome</i> – Overview and follow-ups	5 minutes
	<i>Viewing Gestalt Counseling</i> – Students view and discuss two YouTube videos of Gestalt counselors.	20 minutes
	<i>Practicing Gestalt techniques</i> – Students rehearse a role-play of a Gestalt technique and show the technique to the class.	45 minutes
	<i>Guest speaker</i> – Adlerian counselor is guest speaker to describe and discuss his counseling approach.	45 minutes
	<i>Case studies</i> – Students analyze case studies from an Adlerian perspective in groups, then discuss analyses with the class.	30 minutes
	<i>Counseling practice</i> – Students form pairs and practice counseling using an Adlerian or Gestalt approach.	30 minutes
	<i>Closing</i> – Questions and review	5 minutes

**Non-flipped course sections.** The non-flipped counseling course in this study was Counseling Theories, taught by the same faculty member for both semesters in which the researchers collected data. This faculty member was not an author on the manuscript. Table 1 shows a comparison of the counseling theories taught in the flipped (experimental) and non-flipped (control) counseling courses studied. Students read textbook chapters for homework prior to attending each class. The instructor spent the first half of each class lecturing about the course material, then the second half engaging students in group discussion and hosting guest speakers who were experts in the topics. In this way, the course was not flipped, but it also was not strictly a lecture course. It was “lecture-based,” and regularly involved in-class student activities, as is often the case in counselor education (Cavanagh, 2011; Foldnes, 2016). Table 3 includes an example lesson plan for a non-flipped class session in Counseling Theories.

Table 3

*Example Non-Flipped Learning Lesson Plan – Counseling Theories*

Context	Task	Time Required
Out-of-class	<i>Textbook chapters</i> – Gestalt Counseling, Adlerian Counseling	80 minutes
In-class	<i>Welcome</i> – Overview and follow-ups	5 minutes
	<i>Lecture</i> – Didactically present information about Gestalt and Adlerian counseling approaches	120 minutes
	<i>Guest speaker</i> – Adlerian counselor is guest speaker to describe and discuss his counseling approach.	45 minutes
	<i>Closing</i> – Questions and review	10 minutes

**Data collection.** After obtaining IRB approval, we recruited participants during the final week of each semester by explaining the study to course participants. We described the purpose of the study as “to examine student engagement in counseling courses” in an attempt to prevent participant bias that could have emerged if students knew we were studying engagement related to flipped or non-flipped teaching approaches. We informed students that study participation was voluntary and anonymous and emphasized that participation had no impact on course grades. We distributed paper-and-pencil questionnaires to students in both sections of Theories for Counseling Children and Adolescents and the first section of Counseling Theories. We distributed the questionnaire electronically to students in the second section of Counseling Theories due to in-person scheduling conflicts. All participants signed an informed consent form prior to participating.

### Participants

Sixty-seven master’s students participated in the study. Thirty participants were in the experimental group, completing the flipped theories course (100% participation rate). Thirty-seven participants were in the control group, completing the non-flipped theories course (93% participation rate). Given the first and second authors’ familiarity with the participants as students, we chose not to collect participants’ individual identifying demographic information (including degree specialty)

because doing so might identify students as participants and cause participant bias. For example, a small number of students in the courses identified as male, African American, or Asian American, and if we asked these students to report their demographic information in the study, this information may have unintentionally identified the participants. We can report, though, that the control group participants included first-year school, clinical mental health, couples and family, and addictions counseling students. The experimental group participants included second-year school counseling and school psychology students. The average number of video lectures reportedly viewed by the experimental group participants was 7.4 (out of eight). Video lectures were not a part of the non-flipped course (control group).

### Instrumentation

We distributed the Classroom Engagement Inventory (CEI; Wang et al., 2014) to participants to measure student classroom engagement because it comprehensively measures affective, behavioral, and cognitive engagement. Moreover, it can be used to measure engagement specific to the classroom level, rather than overall school or program engagement (Wang et al., 2014). Although Wang and colleagues (2014) developed the instrument with students in grades 4 through 12, they found that its factor structure was invariant when used with participants of different ages and grade levels, suggesting its relevance in higher education settings.

The CEI consists of five subscales. They are: Affective Engagement (positive emotions students could encounter in class,  $\omega = .90$ ), Behavioral Engagement–Compliance (students' compliance with classroom norms,  $\omega = .82$ ), Behavioral Engagement–Effortful Class Participation (students' self-directed classroom behaviors,  $\omega = .82$ ), Cognitive Engagement (mental effort expended,  $\omega = .88$ ), and Disengagement (cognitive and behavioral aspects of not engaging in class,  $\omega = .82$ ; Wang et al., 2014). Example items are: "I get really involved in class activities" (Behavioral Engagement–Effortful Class Participation), "I feel excited" (Affective Engagement), and "I go back over things when I don't understand" (Cognitive Engagement; Wang et al., 2014, p. 5).

The instrument has 21 items and a 5-point frequency Likert-type scale ranging from *never* to *hardly ever*, *monthly*, *weekly*, and *each day of class*. We adapted the scale to be a 4-point scale by removing the answer choice *each day of class* because both courses only met once per week, therefore *each day of class* was synonymous with *weekly*.

### Data Analysis

Using SPSS, we first analyzed internal consistency using Cronbach's alpha to ensure that reducing the 5-point scale to a 4-point scale did not weaken reliability to an unacceptable degree. Then we ran independent samples *t*-tests to test for statistical significance at  $p < .05$  in order to determine if experimental and control group scores differed by chance. We also ran Cohen's *d* in SPSS to measure effect size, which quantifies the extent that the control group and experimental group diverged in the study (Thompson, 2006). We followed Cohen's (1969) interpretation guidelines of small (0.2), medium (0.5), and large (0.8) effect sizes. We tested for significance among items grouped by scale, as well as overall measure of classroom engagement.

### Results

The internal consistency for our results was deemed acceptable ( $\alpha = .85$ ). We then compared classroom engagement for students in the flipped counseling courses to students in the non-flipped counseling courses in six ways. Table 4 contains a summary of each of these comparisons.



Table 4

*Statistical and Practical Significance from Experimental and Control Group Comparisons*

CEI Scale	<i>p</i>	Cohen's <i>d</i>
Affective Engagement	.013	0.61
Behavioral Engagement–Compliance	.038	0.50
Behavioral Engagement–Effortful Class Participation	.344	
Cognitive Engagement	.013	0.64
Disengagement	.005	-0.70
Overall Classroom Engagement	.005	0.70

**Affective and Behavioral Engagement**

First, we compared the affective engagement between students in the experimental group (flipped) and the control group (non-flipped) courses. Based on a scale of 1 (*never*) to 4 (*weekly*), scores on the Affective Engagement subscale averaged 3.68 ( $SD = 0.32$ ) for the experimental group and 3.44 ( $SD = 0.48$ ) for the control group. This was a statistically significant difference ( $p = .013$ ) with a medium effect size (Cohen's  $d = 0.61$ ), indicating that students in the flipped course self-reported significantly more affective engagement than students in the non-flipped course. We also compared Behavioral Engagement–Compliance subscale scores among both groups. Experimental group participants had an average Behavioral Engagement–Compliance score of 3.93 ( $SD = 0.18$ ), whereas control group participants had a lower average Behavioral Engagement–Compliance score of 3.79 ( $SD = 0.35$ ). This was a statistically significant difference ( $p = .038$ ) with a medium effect size (Cohen's  $d = 0.50$ ), indicating that students in the flipped course self-reported significantly more behavioral engagement in terms of compliance compared to the students in the non-flipped course. We further compared Behavioral Engagement–Effortful Class Participation subscale scores. Although the average experimental group score for this dimension ( $M = 3.40$ ,  $SD = 0.50$ ) was higher than the average control group score ( $M = 3.28$ ,  $SD = 0.47$ ), the difference was not statistically significant ( $p = .344$ ), indicating the students in the flipped counseling course were not significantly different in regards to their reported effort in class.

**Cognitive Engagement and Disengagement**

Next, we examined cognitive engagement for both groups. Students in the experimental group had an average Cognitive Engagement subscale score of 3.43 ( $SD = 0.38$ ), and those in the control group had a lower average Cognitive Engagement score of 3.13 ( $SD = 0.54$ ). This was a statistically significant difference in cognitive engagement levels ( $p = .013$ ) with a medium effect size (Cohen's  $d = 0.64$ ). Students in the flipped course self-reported significantly more cognitive engagement than students in the non-flipped course. We also compared classroom disengagement among participants in both groups. Experimental group participants had an average Disengagement subscale score of 1.81 ( $SD = 0.50$ ), and control group participants had a higher average Disengagement score of 2.25 ( $SD = 0.68$ ). These scores indicate that experimental group participants had lower perceived levels of disengagement, a difference that was statistically significant ( $p = .005$ ) and had a medium effect size (Cohen's  $d = -0.70$ ). In other words, students in the non-flipped course self-reported significantly more disengagement than those in the flipped course.

**Overall Classroom Engagement**

Lastly, we examined overall classroom engagement between both groups; despite its dimensions, classroom engagement can be considered a single overall construct (Wang et al., 2014). To do so, we

combined and averaged participants' responses for all subscales except Disengagement. This resulted in an Overall Classroom Engagement score of 3.55 ( $SD = 0.24$ ) for the experimental group and 3.34 ( $SD = 0.35$ ) for the control group. These scores represent a statistically significant difference between groups ( $p = .005$ ) with a medium effect size (Cohen's  $d = 0.70$ ). That is to say, students in the flipped course had significantly higher perceptions of overall engagement than did the students in the non-flipped course.

## Discussion

This study represented the first of its kind comparing students' self-reported engagement in related flipped and non-flipped counseling courses. We sought to answer the question: Do significant differences exist between student classroom engagement levels in flipped counseling course sections and non-flipped counseling course sections? Our hypothesis that the classroom engagement levels of participants in the flipped counseling course sections would be significantly higher statistically than those of participants in the non-flipped counseling course sections was confirmed for all but one of the measures we examined.

Average perceived classroom engagement ratings were relatively high across all sections studied, including the non-flipped sections, with engagement levels measured by the CEI ranging from 3.13 to 3.93. These values indicate that participants perceived themselves to be engaged in their classrooms at least monthly if not weekly. Such high engagement ratings suggest that master's counseling and school psychology students in our sample were generally interested and involved in the learning process in their classrooms. When separated, however, findings indicate that students in the flipped learning course sections may have felt even more frequently engaged than their non-flipped course section counterparts. Specifically, in five of the six measures examined (Affective Engagement, Behavioral Engagement–Compliance, Cognitive Engagement, Disengagement, and Overall Classroom Engagement), participants in the flipped counseling course reported significantly greater classroom engagement than in the non-flipped counseling course. This is the first study in which researchers found increased engagement among a sample of students in a flipped counseling course, and it builds a growing case for flipped learning in counselor education.

Participants in the flipped learning course sections may have reported more frequent classroom engagement given differences in the way class time was spent in the flipped and non-flipped courses. In the flipped course sections, participants spent nominal time in class listening to lecture. Instead, their F2F class time consisted of active application-based activities, such as group discussions, skills practice, and guest speakers. Although participants in the non-flipped course sections also engaged in some of these activities during class (i.e., discussion and guest speakers), they only spent part of class engaged in activities, as at least half of class was reserved for lecture by the instructor. Participants' higher reported classroom engagement in the flipped course sections might indicate that they found a full class period of application-based activities more engaging than spending only part of class on these activities.

Although no previous studies have used the CEI to measure student engagement in flipped and non-flipped counseling courses, researchers have studied student and instructor perceptions of student engagement in flipped classrooms. The overall increased student engagement in the flipped course sections aligns with the findings of Simpson and Richards (2015) and Lucke and colleagues (2017), who found that students reported increased classroom engagement in flipped learning courses. Although we only surveyed students about their perceived classroom engagement, findings also reflect previous research on instructor perceptions that flipped classrooms increase student classroom

engagement (Faculty Focus, 2015; Wanner & Palmer, 2015). For example, in a survey of 1,087 Faculty Focus (2015) readers who utilized flipped learning, 75% of participants indicated observing improved student engagement in flipped classrooms compared to those that were not flipped.

Findings also support previous research indicating that hybrid learning approaches like flipped learning may be more appealing to students than courses held solely online or solely through F2F means. Further research is needed to understand if preferences for flipped learning courses vary by student characteristics, such as working or non-working status. These characteristics have been correlated with preferences for online learning instead of F2F learning, and associations between working status and flipped learning preferences have not previously been examined (Brown, 2016; Nguyen, 2013; Paechter et al., 2013; Thai et al., 2017).

One subscale we compared, Behavioral Engagement–Effortful Class Participation, was not significantly different among students in the flipped and non-flipped counseling courses. This construct refers to students' self-directed behavioral engagement in class versus behaviors that are compliant with classroom norms (Fredricks et al., 2004; Wang et al., 2014). Effortful class participation includes self-directed behaviors and efforts to become invested in learning (Wang et al., 2014). It might not have differed among students due to the student population used in this study—graduate counseling and school psychology students. Students were voluntarily pursuing master's degrees in their areas of choice and subsequently had high levels of motivation toward the courses. Students in both sections were likely invested in their coursework, and this investment may not have been affected by whether or not the courses were flipped.

This study's findings add to a growing body of research demonstrating positive findings when flipped courses are compared to non-flipped ones. Researchers have consistently found that students in flipped courses perform better than those in non-flipped courses (Day & Foley, 2006; Foldnes, 2016; Murphy et al., 2016; Thai et al., 2017). Given that higher classroom engagement is associated with better academic performance (O'Brien & Iannone, 2018; Trowler, 2010; Wang et al., 2014), the findings in our study may indicate that flipped learning could lead to enhanced academic performance for counseling students.

In counselor education, our findings provide further tentative support for the use of flipped learning within the discipline. They align with Moran and Milsom's (2015) survey research with school counseling students, Fulton and Gonzalez's (2015) survey research with career counseling students, and Merlin-Knoblich and Camp's (2018) case study with life span students demonstrating positive findings on flipped learning in counselor education. The findings from these studies begin to build a credible case for the positive impact that the flipped learning approach might have on graduate counseling students.

## **Implications for Counselor Education**

### **Pedagogy**

Results of this study beg a larger question about the importance of pedagogy in counselor education. If programs are to graduate competent practitioners into the profession, then they must understand how to optimize students' learning of the counseling discipline. Authors of a journal content analysis of pedagogy in counselor education over a 10-year period revealed that only 14.78% of the articles had a clear basis in learning theory or instructional research (Barrio Minton, Wachter Morris, & Yaites, 2014). Other researchers have called for the need for much more attention to

teaching and learning in counselor education (Baltrinic, Jencius, & McGlothlin, 2016; Brackette, 2014; Malott, Hall, Sheely-Moore, Krell, & Cardaciotto, 2014).

Flipped learning is one type of teaching format that is a recognized practice at both the K–12 and undergraduate levels (Kurt, 2017; Sezer, 2016; Zainuddin & Halili, 2016). As students progress in their education, counselor educators need to be aware of how teaching practices must evolve in order to meet the expectations of students at the graduate level. Findings from this study suggest that it is worthwhile to consider flipped learning as a way to engage future students. Furthermore, the significance of findings related to the affective, behavioral, and cognitive engagement in flipped learning might be especially important because the practice of counseling requires simultaneous use of emotional, behavioral, and cognitive skills. The opportunity to preview lecture content before a class allows students to engage in initial cognitive processing and frees up class time for more complex and application tasks engaging with course material (Earley, 2016; Hoffman, 2014; Zainuddin & Halili, 2016). Given the cognitive complexity and skills-oriented nature of counseling courses, it seems preferable to have more time spent on higher-order thinking processes and skills practice. In this way, flipped learning may provide the additional class time needed to increase students' counseling competence.

### **Counseling Student Competence**

Students' counseling competence might manifest in both counseling abilities and academic achievement. Academic achievement in counseling programs is reflected in assignment and course grades, as well as counselor examinations like the National Counselor Examination for Licensure and Certification and the Counselor Preparation Comprehensive Examination. Given research in non-counseling disciplines indicating significantly better academic achievement in flipped courses compared to non-flipped courses (Day & Foley, 2006; Foldnes, 2016; Murphy et al., 2016; Thai et al., 2017), counselor educators may want to consider the use of flipped learning in order to improve counseling course grades and exam scores. This improved academic achievement for counseling students could lead to greater numbers of students completing counseling programs and might lead to improved graduation rates among counseling programs with flipped courses.

### **Counselor Education Training**

In addition to the implications for students' learning in the master's-level counseling classroom, this study has implications for the training of current and future counselor educators. Previous literature demonstrates a lack of counselor education's attention to pedagogy and learning theory (Barrio Minton et al., 2014; Brackette, 2014; Malott et al., 2014; McAuliffe & Eriksen, 2011), much less to teaching approaches like flipped learning. Thus, one might conclude that counseling professors either have had little training in teaching and learning or are not publishing about their training in this area. Thankfully, the 2016 CACREP standards include nine standards that address pedagogy in doctoral programs (CACREP, 2016), whereas the former 2009 standards only included two in this area (CACREP, 2009). It is likely that many counselor education doctoral programs are working to better incorporate the revised standards. As such, program coordinators and faculty would be encouraged to expose doctoral students to the literature on, and examples of, flipped learning. They also would be wise to encourage doctoral students to research and publish on pedagogy in counselor education, including flipped learning, to help fill this gap in previous literature.

### **Limitations and Future Directions**

We recognize limitations in this study that ought to be considered. First, the study was limited by its data collection measures. We measured participants' perceived classroom engagement, which



they reported via questionnaires. This self-report nature could reflect student biases or inaccuracies that observed classroom engagement measures might not reflect. Furthermore, experimental group participants were students in courses taught by the first and second authors, and despite the anonymity assured to participants, they might have felt compelled to provide favorable questionnaire responses. Although we did not collect data on participant demographics to ensure anonymity, this lack of demographic data also serves as a limitation, as such information could inform the interpretation of results. In addition, the study is limited by its two types of data collection, as one class completed the questionnaire electronically, whereas all other participants completed the questionnaire in a paper-and-pencil format.

Second, the courses we compared contained similar, though not identical content. Although the content in both courses was similar, as a causal comparative study, we were unable to manipulate course content to ensure that instructors in both courses delivered identical content. For example, the Theories for Counseling Children and Adolescents instructors taught one unit on play therapy, which the Counseling Theories instructor did not teach in her sections.

Third, the flipped course section instructors in this study were different. The first author taught the first flipped learning course section, and one year later, the second author taught the second flipped learning course section. Although they used the same instructional approach, differences in their teaching styles might have impacted student experiences in their courses and consequently, the study results as well. They tried to control for differences in their teaching by meeting to discuss the course and flipped learning teaching in between the two flipped course sections. The first author also shared all course materials (e.g., syllabus, video lectures, lesson plans) with the second author, who used or adapted the materials when she taught the course. We chose not to analyze statistical differences between these course sections due to the small sample size of each section ( $n = 17$  and  $n = 13$ ).

In addition, the student composition in the flipped and non-flipped courses varied and sample sizes were limited. Due to the causal comparative method used in the study, sample sizes could not be altered and a post hoc power analysis using G\*Power indicated that the observed power in our study was 0.64. Additionally, the Counseling Theories class consisted of first-year counseling students in different specialties, whereas the Theories for Counseling Children and Adolescents course consisted of second-year school counseling and school psychology graduate students. The latter course was required in the program of study of both school counseling and school psychology students, and the former course was required in the program of study of all counseling students. These differences might have contributed to different levels of classroom engagement. Admissions standards are the same for master's counseling and psychology students at the university where the study took place, yet qualitative differences between the counseling and school psychology students might have existed and impacted participants' reported engagement levels. Furthermore, although no previous literature has indicated that classroom engagement is variable by year or specialty in a master's program, school counseling and school psychology students may inherently be more engaged in a course specifically about children and adolescents, compared to counseling students in different counseling specialties in a course about counseling theories applied to any population. Similarly, students in their second year of study in a master's program might be more engaged in classrooms than students in their first year of study because the former are closer to beginning their chosen careers. Students also could have been more engaged in the flipped learning course given that it was the only flipped course in the department at the time this study took place. The novelty of such a class format could have impacted student engagement beyond the nature of the course itself.

Lastly, the CEI was not developed with a sample of graduate students; hence, instrument reliability and validity with this sample is not certain. In their development of the instrument, however, Wang and colleagues (2014) found that the instrument factor structure was invariant by student age, grade level, and other characteristics, indicating it might be statistically sound for populations outside of students in grades 4 through 12.

Despite these limitations, the findings from the study serve as a foundation for continued research. Given that we found significant differences in levels of reported classroom engagement among participants, these differences could be even more substantial if the comparison groups were to consist of identical course content and the same instructor. That is, external validity issues could be reduced if a single instructor taught two sections of the same course, implementing flipped learning in one class but using a traditional lecture-based approach for the other class. An instructor could also teach a flipped counseling course one semester, then teach the same course with a non-flipped approach in a subsequent semester and compare student outcomes from each course.

Future research also could include expanded data collection. In the present study, we distributed the CEI at the end of the semester for all course sections; however, researchers could distribute instruments both during the middle of the semester as well as at the end of the semester to examine significant changes in student engagement. Researchers could also study student outcomes related to flipped learning to assess cognitive changes. For example, does flipped learning impact student achievement? In counselor education, such research could assess student content knowledge through comprehensive exams. Researchers also ought to address the behavioral and affective impacts of flipped learning in counselor education. To examine affective change, researchers could query students about their emotions in flipped counseling courses and how these emotions impact their development as counselors. To assess behavior, researchers could observe counseling students' behaviors in flipped and non-flipped counseling courses, measuring constructs such as class participation and observed engagement. Finally, the counseling profession would benefit from understanding if flipped learning in counselor education impacts the attainment of actual counseling skills. Researchers might assess counseling performances of students in flipped counseling courses versus those in non-flipped courses.

## Conclusion

In this causal comparative study, we measured the classroom engagement levels of master's students in flipped and non-flipped counseling classrooms. In all but one area measured, we found that participants in the flipped counseling course sections reported significantly higher classroom engagement than participants in the non-flipped counseling course sections. Such research indicates that students may find the flipped classroom experience more engaging than a classroom experience that is lecture-based. Although this is the first study of its kind in counselor education, findings contribute to a case for the use of flipped learning in counseling courses. Counselor educators will benefit from considering applying flipped learning in the courses they teach.

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## References

- Archambault, I., Janosz, M., Fallu, J. S., & Pagani, L. S. (2009). Student engagement and its relationship with early high school dropout. *Journal of Adolescence, 32*, 651–670. doi:10.1016/j.adolescence.2008.06.007
- Baepler, P., Walker, J. D., & Driessen, M. (2014). It's not about seat time: Blending, flipping, and efficiency in active learning classrooms. *Computers & Education, 78*, 227–236. doi:10.1016/j.compedu.2014.06.006
- Baltrinic, E. R., Jencius, M., & McGlothlin, J. (2016). Coteaching in counselor education: Preparing doctoral students for future teaching. *Counselor Education & Supervision, 55*, 31–45. doi:10.1002/ceas.12031
- Barrio Minton, C. A., Wachter Morris, C. A., & Yaites, L. D. (2014). Pedagogy in counselor education: A 10-year content analysis of journals. *Counselor Education & Supervision, 53*, 162–177. doi:10.1002/j.1556-6978.2014.00055.x
- Bergmann, J., & Sams, A. (2014). *Flipped learning: Gateway to student engagement*. Eugene, OR: International Society for Technology in Education.
- Bishop, J. L., & Verleger, M. A. (June, 2013). *The flipped classroom: A survey of the research*. Paper presented at the meeting of the American Society for Engineering Education Annual Conference and Expo, Atlanta, GA.
- Bolsen, T., Evans, M., & Fleming, A. M. (2016). A comparison of online and face-to-face approaches to teaching introduction to American government. *Journal of Political Science Education, 12*, 302–317. doi:10.1080/15512169.2015.1090905
- Brackette, C. M. (2014). The scholarship of teaching and learning in clinical mental health counseling. *New Directions for Teaching & Learning, 139*, 37–48. doi:10.1002/tl.20103
- Bristow, D., Shepherd, C. D., Humphreys, M., & Ziebell, M. (2011). To be or not to be: That isn't the question! An empirical look at online versus traditional brick-and-mortar courses at the university level. *Marketing Education Review, 21*, 241–250. doi:10.2753/MER1052-8008210304
- Brown, M. G. (2016). Blended instructional practice: A review of the empirical literature on instructors' adoption and use of online tools in face-to-face teaching. *The Internet and Higher Education, 31*, 1–10. doi:10.1016/j.iheduc.2016.05.001
- Cavanagh, M. (2011). Students' experiences of active engagement through cooperative learning activities in lectures. *Active Learning in Higher Education, 12*, 23–33. doi:10.1177/1469787410387724
- Cohen, J. (1969). *Statistical power analysis for the behavioral sciences*. New York, NY: Academic Press.
- Council for Accreditation of Counseling and Related Educational Programs. (2009). *2009 CACREP Accreditation Manual*. Alexandria, VA: Author.
- Council for Accreditation of Counseling and Related Educational Programs. (2016). *2016 CACREP Accreditation Manual*. Alexandria, VA: Author.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Thousand Oaks, CA: SAGE.
- Davies, R. S., Dean, D. L., & Ball, N. (2013). Flipping the classroom and instructional technology integration in a college-level information systems spreadsheet course. *Educational Technology Research and Development, 61*, 563–580. doi:10.1007/s11423-013-9305-6
- Day, J. A., & Foley, J. D. (2006). Evaluating a web lecture intervention in a human-computer interaction course. *IEEE Transactions on Education, 49*, 420–431. doi:10.1109/TE.2006.879792
- Earley, M. (2016). Flipping the graduate qualitative research methods classroom: Did it lead to flipped learning? *International Journal of Teaching and Learning in Higher Education, 28*, 139–147.
- Elmaadawy, M. A. N. (2018). The effects of a flipped classroom approach on class engagement and skill performance in a Blackboard course. *British Journal of Educational Technology, 49*, 479–491. doi:10.1111/bjet.12553
- Faculty Focus. (2015). *Special report: Flipped classroom trends: A survey of college faculty*. Retrieved from <https://www.facultyfocus.com/free-reports/flipped-classroom-trends-a-survey-of-college-faculty/>
- Foldnes, N. (2016). The flipped classroom and cooperative learning: Evidence from a randomised experiment. *Active Learning in Higher Education, 17*, 39–49. doi:10.1177/1469787415616726
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research, 74*, 59–109. doi:10.3102/00346543074001059

- Fulton, C. L., & Gonzalez, L. M. (2015). Making career counseling relevant: Enhancing experiential learning using a “flipped” course design. *Journal of Counselor Preparation & Supervision, 7*(2), 38–67. doi:10.7729/72.1126
- Gerstein, J. (2012). *The flipped classroom: The full picture*. Retrieved from <https://read.amazon.com/?asin=B008ENPEP6>
- Gilboy, M. B., Heinerichs, S., & Pazzaglia, G. (2015). Enhancing student engagement using the flipped classroom. *Journal of Nutrition Education and Behavior, 47*, 109–114. doi:10.1016/j.jneb.2014.08.008
- Gladding, S. T., & Ivers, N. N. (2012). Group work: Standards, techniques, practice, and resources. In D. M. Perera-Diltz and K. C. MacCluskie (Eds.), *The counselor educator’s survival guide: Designing and teaching outstanding courses in community mental health counseling and school counseling* (pp. 171–186). New York, NY: Routledge.
- Hao, Y. (2016). Exploring undergraduates’ perspectives and flipped learning readiness in their flipped classrooms. *Computers in Human Behavior, 59*, 82–92. doi:10.1016/j.chb.2016.01.032
- Harper, S. R., & Quaye, S. J. (Eds.). (2009). *Student engagement in higher education: Theoretical perspectives and practical approaches for diverse populations*. New York, NY: Routledge.
- Hoffman, E. S. (2014). Beyond the flipped classroom: Redesigning a research methods course for e<sup>3</sup> instruction. *Contemporary Issues in Education Research, 7*, 51–62.
- Kim, M. K., Kim, S. M., Khera, O., & Getman, J. (2014). The experience of three flipped classrooms in an urban university: An exploration of design principles. *The Internet and Higher Education, 22*, 37–50. doi:10.1016/j.iheduc.2014.04.003
- Krause, K.-L., & Coates, H. (2008). Students’ engagement in first-year university. *Assessment & Evaluation in Higher Education, 33*, 493–505. doi:10.1080/02602930701698892
- Kurt, G. (2017). Implementing the flipped classroom in teacher education: Evidence from Turkey. *Journal of Educational Technology & Society, 20*, 211–221.
- Long, T., Cummins, J., & Waugh, M. (2017). Use of the flipped classroom instructional model in higher education: Instructors’ perspectives. *Journal of Computing in Higher Education, 29*, 179–200. doi:10.1007/s12528-016-9119-8
- Lucke, T., Dunn, P. K., & Christie, M. (2017). Activating learning in engineering education using ICT and the concept of ‘Flipping the classroom’. *European Journal of Engineering Education, 42*, 45–57. doi:10.1080/03043797.2016.1201460
- Malott, K. M., Hall, K. H., Sheely-Moore, A., Krell, M. M., & Cardaciotto, L. (2014). Evidence-based teaching in higher education: Application to counselor education. *Counselor Education and Supervision, 53*, 294–305. doi:10.1002/j.1556-6978.2014.00064.x
- McAuliffe, G., & Eriksen, K. (Eds.). (2011). *Handbook of counselor preparation: Constructivist, developmental, and experiential approaches*. Thousand Oaks, CA: SAGE.
- McGivney-Burelle, J., & Xue, F. (2013). Flipping calculus. *Problems, Resources, and Issues in Mathematics Undergraduate Studies, 23*, 477–486.
- McLaughlin, J. E., Griffin, L. M., Esserman, D. A., Davidson, C. A., Glatt, D. M., Roth, M. T., . . . Mumper, R. J. (2013). Pharmacy student engagement, performance, and perception in a flipped satellite classroom. *American Journal of Pharmaceutical Education, 77*, 1–8. doi:10.5688/ajpe779196
- Merlin, C. (2016). Flipping the counseling classroom to enhance application-based learning activities. *Journal of Counselor Preparation and Supervision, 8*(3), 1–28. doi:10.7729/83.1127
- Merlin-Knoblich, C., & Camp, A. (2018). A case study exploring students’ experiences in a flipped counseling course. *Counselor Education and Supervision, 57*, 301–316. doi:10.1002/ceas.12118
- Moran, K., & Milsom, A. (2015). The flipped classroom in counselor education. *Counselor Education and Supervision, 54*, 32–43. doi:10.1002/j.1556-6978.2015.00068.x
- Murphy, J., Chang, J.-M., & Suaray, K. (2016). Student performance and attitudes in a collaborative and flipped linear algebra course. *International Journal of Mathematical Education in Science and Technology, 47*, 653–673. doi:10.1080/0020739X.2015.1102979
- Nguyen, B. T. (2013). Face-to-face, blended, and online instruction: Comparison of student performance and retention in higher education. *Dissertation Abstracts International Section A: Humanities and Social Sciences, 73*(7-A(E)).



- Nouri, J. (2016). The flipped classroom: For active, effective and increased learning—especially for low achievers. *International Journal of Educational Technology in Higher Education*, 13, 1–10. doi:10.1186/s41239-016-0032-z
- O'Brien, B., & Iannone, P. (2018). Students' experiences of teaching at secondary school and university: Sharing responsibility for classroom engagement. *Journal of Further and Higher Education*, 42, 922–936. doi:10.1080/0309877X.2017.1332352
- Okech, D., Barner, J., Segoshi, M., & Carney, M. (2014). MSW student experiences in online vs. face-to-face teaching formats. *Social Work Education*, 33, 121–134. doi:10.1080/02615479.2012.738661
- Paechter, M., Kreisler, M., Luttenberger, S., Macher, D., & Wimmer, S. (2013). Communication in e-learning courses. *The Internet and Higher Education*, 44, 429–433. doi:10.1007/s11612-013-0223-1
- Platt, C. A., Raile, A. N. W., & Yu, N. (2014). Virtually the same? Student perceptions of the equivalence of online classes to face-to-face classes. *Journal of Online Learning and Teaching*, 10, 489–503.
- Sezer, B. (2016). The effectiveness of a technology-enhanced flipped science classroom. *Journal of Educational Computing Research*, 55, 471–494. doi:10.1177/0735633116671325
- Simpson, V., & Richards, E. (2015). Flipping the classroom to teach population health: Increasing the relevance. *Nurse Education in Practice*, 15, 162–167. doi:10.1016/j.nepr.2014.12.001
- Sommers-Flanagan, J., & Heck, N. (2012). Counseling skills: Building the pillars of professional counseling. In D. M. Perera-Diltz and K. C. MacCluskie (Eds.), *The counselor educator's survival guide: Designing and teaching outstanding courses in community mental health counseling and school counseling* (pp. 153–170). New York, NY: Routledge.
- Thai, N. T. T., De Wever, B., & Valcke, M. (2017). The impact of a flipped classroom design on learning performance in higher education: Looking for the best “blend” of lectures and guiding questions with feedback. *Computers & Education*, 107, 113–126. doi:10.1016/j.compedu.2017.01.00
- Thompson, B. (2006). Role of effect sizes in contemporary research in counseling. *Counseling and Values*, 50, 176–186. doi:10.1002/j.2161-007X.2006.tb00054.x
- Trowler, V. (2010). Student engagement literature review. *The Higher Education Academy*. Retrieved from [http://www.academia.edu/743769/Student\\_engagement\\_literature\\_review](http://www.academia.edu/743769/Student_engagement_literature_review)
- Wallace, M. L., Walker, J. D., Braseby, A. M., & Sweet, M. S. (2014). “Now, what happens during class?” Using team-based learning to optimize the role of expertise within the flipped classroom. *Journal on Excellence in College Teaching*, 25, 253–273.
- Wang, Z., Bergin, C., & Bergin, D. A. (2014). Measuring engagement in fourth to twelfth graded classrooms: The Classroom Engagement Inventory. *School Psychology Quarterly*, 29, 517–535. doi:10.1037/spq0000050
- Wanner, T., & Palmer, E. (2015). Personalizing learning: Exploring student and teacher perceptions about flexible learning and assessment in a flipped university course. *Computers and Education*, 88, 354–369. doi:10.1016/j.compedu.2015.07.008
- Young, S., & Duncan, H. E. (2014). Online and face-to-face teaching: How do student ratings differ? *Journal of Online Learning and Teaching*, 10, 70–79.
- Zainuddin, Z., & Halili, S. H. (2016). Flipped classroom research and trends from different fields of study. *International Review of Research in Open and Distributed Learning*, 17, 313–340. doi:10.19173/irrodl.v17i3.2274