Current Research on Flipped Learning in Counselor Education:
Findings from Three Recent Studies

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Agenda

- Who’s here?
- Review of Literature
- *Brief* Presentations of Three Studies in Counselor Education
- Doctoral Student Perspectives
- Implications: Where Do We Go from Here?
- Q&A
Review of Literature
K-12 vs. Higher Education

Synonymous with *inverted learning*, a term historically used in higher education.

**College**

2000 (Lage, Platt & Treglia) first empirical study about *inverted learning* in college economics course.

**High School**

Jonathan Bergmann & Aaron Sams credited with originating the current *flipped* learning movement.
- 2006 flipped high school science classes
- 2012 published how-to book (Bergmann & Sams, 2012)

**Benefits in Higher Education**
- access to technology
- increases student motivation
- complements college courses that meet 1-2 times per week
- based on andragogy for adult learners & transformative learning (Cranton, 2006; Knowles, 1968; Pew, 2007; Taylor & Cranton, 2012)
Research

Studied Across Disciplines:

- Algebra
- Chemistry
- Counseling
- Economics
- Engineering
- Haematology
- Information systems
- Nursing
- Pharmacy
- Public Health


Students generally have positive reactions to flipped learning (Al-Zahrani, 2015; Bishop, 2013; Davies et al., 2013; Gilboy et al., 2015; Hao, 2016; Lage et al., 2000; Meyer, 2013; Nouri, 2016; Prober & Heath, 2012; Sergis, Sampson & Pelliccione, 2018; Strayer, 2013)
Research

Positive Student Outcomes

Increases in student achievement: flipped learning courses compared to traditional courses (Baepler et al., 2014; Davies et al., 2013; Foldnes, 2016; Gonzalez-Gomez, et al. 2016; McLaughlin et al., 2013; Murphy, Chang, & Suaray, 2016; Talley & Scherer, 2013; Tune, Sturek, & Basile, 2013; Zengin, 2017)

- 13% increase in undergraduate algebra test scores in flipped courses compared to non-flipped final exam scores (Murphy et al., 2016)
- 5 percentage points higher than average final exam score for pharmacy students in the traditional classroom (McLaughlin et al., 2014).
- 12% higher exam scores of statistics students in a flipped learning course when compared to those in the non-flipped course (Foldnes, 2016)

Improves attendance: 30% to 80% increase for optional attendance in a medical school biochemistry course after flipping it (Prober & Heath, 2012)

Improves retention: 62% of participants in flipped computer science classroom reported making 5 or more new friends in their class (Latulipe, Long, & Seminario, 2015)
Research in Counselor Education

- Video lectures, readings, and writing prompts before class
- Guest speakers, discussion, projects, and group activities in class
- 12 of 15 students reported narrated PowerPoints facilitated their learning “somewhat” or “very much”; experiential group projects in class “very much” facilitated their learning

Fulton & Gonzalez (2015): flipped career counseling courses
- Narrated PowerPoints prior to class
- 75%-80% of class time was used for experiential learning activities
- Significant positive changes in students’ Career Counseling values and attitudes after completing the flipped course

Merlin (2016): theoretical article about flipped learning in counselor education
- Four models of flipped learning
- Examples of flipped learning in Helping Relationships, Group Work, Career Development, and Social and Cultural Diversity

Counselman-Carpenter, E. A. (2018): flipped classroom to teach Play Therapy
- Pre Recorded lectures, assigned reading, and quizzes completed prior to attending class
- Entire class time was devoted to practicing individual, family, and group play therapy skills
- Strong support for flipped classroom to develop students knowledge, attitudes, and skills of play therapy
Study # 1

A Qualitative Case Study Exploring a Flipped Counseling Lifespan Course

Merlin-Knoblich & Camp
Method

- Qualitative case study
- Course: Counseling Across the Lifespan
  - 6 weeks, summer 2016
- Participants
  - N=10 (6-CMH, 3-SC, 1-SA)
  - 8 White females, 1 Black female, 1 White male
- Data collection:
  - Individual semi-structured interviews
- Data analysis:
  - Transcription, coding, frequency counts, code elimination \((n < 9)\), theme and subtheme identification (Stake, 2005; Yin, 2014)
- Trustworthiness
  - Subjectivity statements, member checking, audit trail
## Results

<table>
<thead>
<tr>
<th>Themes and Subthemes</th>
<th>Participants (N=10)</th>
<th>Participants’ Descriptions and Quotes</th>
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</thead>
</table>
| Flipped learning as an *enjoyable* experience | 10                  | • Stimulating, experiential, interactive  
“I really just loved it ... I think it was good cause it balanced us having to still be responsible for the material out of class but in class, that time was spent really wisely and I felt like I wasn’t wasting my time.” |
| Flipped learning as a *beneficial* experience  | 10                  | • Retained content more, reinforced learning  
• Liked the structure, detail, and duration of video lectures  
• Case studies, mock counseling sessions, group presentations, discussions, and podcasts were useful  
“I think I will remember more, long-term, from it [flipped learning] than some of my other classes because I did have more time to think through it.” |
| Learning *inside and outside* of the classroom | 9                   | • In-class and out-of-class learning enhanced students’ overall experience  
“I learned more in the class application but I don’t think I could have if I hadn’t watched the videos ahead of time.” |
Study # 2

Comparison of a Flipped vs. Non-Flipped Course Format on Student Engagement in Counseling Theories Courses

Merlin-Knoblich, Harris, & Mason
Method

• Causal comparative study
• \( N = 67 \)
  • Non-flipped counseling theories course sections \( n = 30 \)
  • Flipped counseling theories for children and adolescents \( n = 37 \)
• Student Engagement Inventory (Wang, Bergin, & Bergin, 2014)
  • Affective engagement
  • Behavioral engagement- compliance
  • Behavioral engagement- effortful classroom participation
  • Cognitive engagement
  • Disengagement
  • Overall classroom engagement
• Independent samples t-tests \((p < .05)\) and Cohen’s \(d\) in SPSS
<table>
<thead>
<tr>
<th>Construct</th>
<th>p value</th>
<th>Effect size</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective</td>
<td>.013</td>
<td>.61</td>
<td>Statistically significant difference in affective engagement</td>
</tr>
<tr>
<td>Behavioral- compliance</td>
<td>.038</td>
<td>.50</td>
<td>Statistically significant difference in behavioral engagement- compliance</td>
</tr>
<tr>
<td>Behavioral- effortful classroom participation</td>
<td>.344</td>
<td></td>
<td><strong>No statistically significant difference in behavioral engagement- effortful class participation</strong></td>
</tr>
<tr>
<td>Cognitive</td>
<td>.013</td>
<td>.64</td>
<td>Statistically significant difference in cognitive engagement</td>
</tr>
<tr>
<td>Disengagement</td>
<td>.005</td>
<td>.70</td>
<td>Statistically significant difference in disengagement</td>
</tr>
<tr>
<td>Overall classroom engagement</td>
<td>.005</td>
<td>.70</td>
<td>Statistically significant difference in overall engagement</td>
</tr>
</tbody>
</table>
Study # 3

Comparison of a Flipped vs. Interactive Lecture Format on Student Engagement in a Career Counseling Course

Mason, Dispenza, Metzler, Finan, Grad, Huguelet & Placeres
Method

Pilot study
Group Comparison (non-random)

**Participants:** 55 (42 CMH and RHC, 13 SCH)
Two sections of *Career Theory, Assessment & Intervention* in Spring 2018
CMH + RHC = Interactive lecture during class (49 students)
SCH = Flipped with video-recorded lectures prior to class (24 students)
Observations: 4 for interactive lecture, 3 for flipped during semester, done by 3rd researcher with substantial experience in SOTL

**Common Elements:**
- Doctoral level teaching assistants
- PPT material for teaching core career theories
- Testbank and some common questions on quizzes

**Varied Elements:**
- Textbooks
- Assignments
- Delivery of content (interactive lecture vs. flipped)
Class Episodes: Mean Percentage of Instructional Time

- **Content**
  - Interactive Lecture: 62.1%
  - Flipped: 6.1%

- **Discussion/Interaction**
  - Interactive Lecture: 24.8%
  - Flipped: 51.2%

- **Activity**
  - Interactive Lecture: 11.3%
  - Flipped: 42.5%

- **Other**
  - Interactive Lecture: 1.8%
  - Flipped: 0.2%
Student Engagement: Mean Percentage of Instructional Time

- **Active Engagement**
  - Interactive Lecture: 9.7
  - Flipped: 51.5

- **Passive Engagement**
  - Interactive Lecture: 69.5
  - Flipped: 42

- **Off-Task**
  - Interactive Lecture: 20.8
  - Flipped: 6.5
Preliminary Analyses and Other Measures

No statistically significant findings on engagement (t-tests):
- Insufficient number of observations?
- Was the interactive lecture so well done that it accounts for lack of differences?

Other data collected (not yet analyzed):
- Student academic outcomes
  - Quiz grades, final grades
- Student perceptions of teaching style
  - Course evaluations, end of study questionnaire
- Skills assessment (self-report):
  - State Anxiety (WAI-SF)
  - Multicultural Counseling Awareness (MCKA-A)
  - Helping Skills Self-Efficacy (HSSE)
  - Career Counseling Self-Efficacy (CCSE)
Doctoral Student Perspectives
“Engaging in this research study not only enhanced my confidence in conducting qualitative research but also expanded my knowledge about the flipped learning approach. Given that I was a second-year doctoral student learning effective teaching strategies and theories at the time of this study, it was especially helpful to hear the perspectives of students regarding this innovative, pedagogical approach.”

Ami Camp (former doctoral student), Assistant Professor, Northeastern Illinois University
“I believe that the most important aspect in education is the relationship between the student and the instructor. Good teaching is about this relationship. Having had the experience of teaching using the flipped model has dared me to be more, do more and expand on ways to build these relationships with my students, and contribute to their professional development. As a doctoral candidate who is now on the job market, I can talk about having experience with a teaching method that provides me with the skills, knowledge, and resources to meet the needs of the new generation of students that expect innovative ways of teaching and learning that match their interests and lifestyle.”

Ramona I. Grad, Doctoral Candidate, Georgia State University
“Flipped teaching allowed me to bring my truest self into the classroom. It freed me from traditional classroom expectations and provided me with an opportunity to show up differently. I walked into what, at the time, was my first teaching experience with masters students and felt like they already knew me. This created an instant connection and eased my anxiety as a novice instructor. This experience opened my eyes to the abundance of possibilities in the classroom and ways to make my time with students engaging, fun, and uniquely my own.”

Vanessa Placeres, Doctoral Student, Georgia State University
Where Do We Go From Here?
Flipped learning is a promising teaching approach in counselor education!

- Consider starting small
  - Flip one or two class sessions
- Use best practices in flipped learning
  - Brief video lectures
  - Meaningful/relevant in-class activities
- Assist students with time management
  - Homework/recorded lectures
Implications

- Understand the growing impact of technology in counselor education
- Incorporate flipped learning into training for future counselor educators
  - See 2016 CACREP standards
- Increase support for flipped learning on university campuses
  - Centers for Teaching and Learning
  - Professional development
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Thank you!

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