Introduce myself

The purpose of this presentation is to share my doctoral research about the use of multimodal asynchronous and synchronous discussions as a way to address the needs of emerging online learners - undergraduates enrolled in a mix of face to face and online courses.

My research was important prior to COVID-19 because the percentage of undergraduates enrolled in at least one online course has been steadily increasing from 15% in 2003-2004 to 45% during the 2014-2015 academic year (National Center for Education Statistics, 2016). This should not come as a surprise because undergraduates are becoming more diverse and more and more undergraduates are looking for convenience and flexibility as they balance work, extracurriculars, social lives, and families. As evidenced in the current COVID-19 higher ed environment and as we look into the future, straight up face to face instruction will come back and will still be desired, but online education will never be a fringe option again. The line between a face to face student and an online student has been fading and is certain to be a distinction no longer made in the years to come. Emerging online learners are sure to become the norm. However, they struggle more in online courses than they do face-to-face courses. Perhaps, the use of multimodal asynchronous and synchronous discussion are the way forward as a means to improve success in online courses for this population.
If we were to chat with emerging online learners, what would they tell us? Who are they? (Bawa, 2016; Dabbagh, 2007; Raza et al., 2020; Seaman et al., 2018). I've read what the research says they would say and I've personally with several over the years. Here's what I know...
Staci

We have established that emerging online learners are the predominant consumer of online classes (Seaman et al., 2018) and we’ve learned a bit about them. If we were to chat with the experts what advice would they offer....what do they say about emerging online learners, the state of online instruction for them, and online instruction that meets their needs.

Xu & Jaggars, 2011 - Students have lower rates of persistence for online courses as compared to face-to-face classes.

National Center for Educational Statistics, 2016 - Part of the reason could be because online classes continue to fall below face-to-face courses in terms of opportunities for student-to-student interaction.

Kaufmann, 2015 - Adds that Instructors often seek to address this deficit through text-based asynchronous discussion boards even though students often report dissatisfaction with these types of discussions because they lack the real-time...
authentic interaction and feedback they get in face-to-face courses

*Additionally, this widespread use of asynchronous text-based discussions could be why online learners many times report lower levels of social presence as compared to students enrolled in face-to-face classes. Social presence is significant because higher levels lead to better outcomes for online learners. The way to increase social presence is through quality interactions, not a precise amount or number). In Spite of this research, there still is not a consensus on how to design interactions for online learners in general nor distinct groups. Thus, the task at hand is to determine how to create opportunities for interactions that allow emerging online learners to interact with their peers in a manner, that is not fake or forced but meaningful and purposeful.

Some assert online instructors can perhaps address the need for more authentic student-to-student interaction, and by proxy, increase social presence, through the use of multimodal synchronous video conferencing tools (Paulsen such as Zoom. These tools provide opportunities for students to have meaningful real-time interactions with their peers through text, audio, and video.

On the other hand, some recommend the use of multimodal asynchronous tools that provide more flexibility for online learners yet still allowing for text, audio, and video Communication - voice thread. -asyn preferences - studies show students prefer audio, then text, and finally video because they can experience emotion, personality, and other verbal cues - authentic interactions (Voice Thread)

At the same time, still others suggest that blending asynchronous and synchronous tools can assist with retaining students who otherwise fail to persist in online Courses. There seems to be a case to shift away from the heavy reliance on asynchronous text-based discussion boards.

Still, Instructors say - What are we to do? Because the slope gets slippery when beginning to introduce synchronous tools because now the flexibility and convenience students desire becomes compromised. All things considered this lack of clarity around how to best support online learner persistence in general and that of
distinct groups warrants further exploration.
It might come down to the format for communicating that distinct groups of students value the most. The form they value most, in turn, motivates them (Wigfield & Eccles, 2000) which leads to better outcomes, success, and persistence. As a result, student values, in combination with indicators of social presence, have the potential to provide insights into the type of discussions (e.g., synchronous and asynchronous) and the blend of each to include in online courses. In the end leading to emerging online learner student persistence. All things considered this lack of clarity around how to best support online learner persistence in general and that of distinct groups warrants further exploration.
The lack of clarity around how to best support online learner persistence in general and that of distinct groups was the impetus for me to create a framework to support my research. Using elements of Garrison et al’s (2000) community of inquiry conceptual framework, Anderson’s (2003) interaction equivalency theorem, Tinto’s (1993) social integration theory, and Wigfield and Eccles (2000) expectancy-value theory of motivation, I developed the Framework for Emerging Online Learner Persistence (FEOLP). FEOLP shows that there is perhaps a connection between social presence, online course tools (multi-modal asyn and syn), student values, and their collective impact on student persistence. Student values in combination with indicators of social presence, are essential to consider when determining the type of discussion (asyn or syn) and the blend of each to include in online courses. The hope is my study utilizing FEOLP will validate previous theoretical claims and add to the empirical research base.
My research uses a within subjects quasi-experimental design. Just to make it clear that all participants experienced both types of discussions, but I didn’t counter balance (have half do sync first, asynch second with the second half doing asynch first, synch second). For my pilot 15 students who were enrolled in an online teacher prep course participated in 3-4 discussion boards (asyn) and 3-4 learning communities (syn) both using multi-modal (text, audio, and video) technologies - Zoom and LMS (Canvas) and 10 completed the survey - a 31-item online questionnaire for this study, demographics, Social Presence (Comm of Inquiry from Arbaugh and colleagues, and Values (Hulleman and colleagues).
Small pilot sample size so not ideal for running statistical analysis n = 10. For my dissertation research shooting for a sample size of 80-100.

RQ 1 & 2 Not much difference between levels of social presence and values for the different types of discussions

RQ 3 - High levels of social presence are associated with high levels of values, the more students value a discussion the higher the levels of social presence. Underscore importance of considering student values.

**Mean and Standard Deviation of Constructs by Condition**

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Discussion Boards (Asynchronous)</th>
<th>Learning Communities (Synchronous)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Presence</td>
<td>4.25 (0.64)</td>
<td>4.0 (0.84)</td>
</tr>
<tr>
<td>Values</td>
<td>3.77 (1.00)</td>
<td>3.81 (0.80)</td>
</tr>
</tbody>
</table>

*Note. N= 10 Discussion Boards, N= 10 Learning Communities. Means are listed with standard deviations in parentheses. Likert scale anchors ranged from "1 = Strongly Disagree" to "5 = Strongly Agree."*
What do my emerging online learners have to say?

Adding in additional open ended items for dissertation data collection - drill down a little more

Anecdotally here’s what I’ve learned from talking with my students and from their end of course reflection assignments

Themes - Majority of students prefer/value learning communities even though they have to give up (cost) flexibility

VLCs - relationships/support
VLCs - answer questions/clarify/ ideas
VLCs - different perspectives/experiences
VLC - back and forth/real time
VLC - fun - enjoy interacting
DB - Choice
For practitioners, I recommend a combination of synchronous and asynchronous discussions. This blend allows emerging online learners to have some semblance of the "anytime, anywhere" aspect of online learning they desire (Simpson, 2013) while also fostering higher levels of social presence that lead to student success (Hart, 2012; Joksimovic et al., 2015; Leeds et al., 2013; Liu et al., 2009; Zhan & Mei, 2013). Furthermore, student values, in combination with indicators of social presence, are essential to consider when determining the type of discussions (e.g., synchronous and asynchronous) and the amount of each to include in online courses. Remember, too much or too little interaction can lead to adverse student outcomes (Angelino et al., 2007; Cho & Tobais, 2016; Downing et al., 2007; Garrison & Cleveland-Innes, 2005; Moore, 1989). Practitioners can assess levels of social presence and student attitudes through simple online surveys or informal interviews/conversations and then use that information to plan the types and amounts of discussions within their courses. Another option is to provide students with choice in how they interact with their peers within asynchronous discussions. Choice can easily be accomplished by those that are fortunate to have an LMS like Canvas or Desire2Learn that has built-in audio and video recording tools in their discussion boards along with text. There are also other tools like Voice Thread and Flip Grid that can accomplish similar things (Delmas, 2017; Ching & Hsu, 2013). Yet, another possibility is to provide students with a choice about whether they participate in discussions asynchronously or synchronously. They can opt to participate in either asynchronous or a synchronous discussion. Students could sign up ahead of time, and then the instructor could put them into groups based on their preference. In summary, it is all about being aware of

### Recommendations

<table>
<thead>
<tr>
<th>Practitioners</th>
<th>Researchers</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Use a blend of asynchronous and synchronous discussions</td>
<td></td>
</tr>
<tr>
<td>-Consider student values</td>
<td>-Student reports of social presence and values</td>
</tr>
<tr>
<td>-Choice</td>
<td>-Distinct groups; impact of culture</td>
</tr>
<tr>
<td></td>
<td>-Multimodal tools</td>
</tr>
</tbody>
</table>
the needs of emerging online learners and responding appropriately.

As for researchers, the research-base is limited and more theoretical rather than empirical in regard to asynchronous and synchronous elements in online courses. Therefore, future research should look at how the use of both asynchronous and synchronous discussions impacts emerging online learners and also other distinct groups of online learners. Researchers can accomplish this through studies comparing online student reports of social presence and values across a variety of content areas and student demographics to determine if a relationship between the two exists. It is also essential to compare levels of social presence and values for online courses using either or both types of communication along with incorporating multi-modal tools. Specifically, a closer look should be taken at the new tools that support multi-modal (e.g., text, audio, and video) asynchronous and synchronous interactions. For instance, do multi-modal asynchronous and synchronous tools used for student-to-student interactions yield similar levels of social presence? If so, do students value one more than the other? These comparisons might help address what needs to happen instructionally in online classes for student levels of social presence to be at level that is required to be on par with that of face-to-face courses. Practitioners and decision-makers could then use the recommendations that come from these studies to improve online courses. In the end, with practitioners and researchers working hand in hand utilizing FOELP as a roadmap, attrition rates for the emerging online learners should do nothing but improve.
“How will you implement or apply or adapt I shared in this session when you return to your institution or your research?” Comment on this slide or connect on connect with me on social media or via email with this response and/or questions, comments, and reactions - I’ll check in either way and get back to you.