

BACKGROUND

Blended learning (BL) allows instructors to combine the advantages of online and traditional instruction (Owston, York, & Murtha, 2013; Larson & Sung, 2009; Park, Woo & Yoo, 2016). BL can be used to navigate differing learning styles and abilities (Johnson et al., 2010), allowing students opportunities to repeat materials as needed, to immediately receive feedback (Salamonson & Lantz, 2005;), and to participate in individualized knowledge-construction activities (Blissitt, 2016). Additional benefits of BL may include increased critical thinking, improved self-efficacy, and decreased emotional anxiety for clinical practicums (Larson & Sung, 2009; Park, Woo & Yoo, 2016).

In studies of undergraduate nursing learners, BL has been shown to yield no statistical difference or slightly higher results in achievement measures when compared to traditional instruction (Park, Woo & Yoo, 2016; Johnson et al., 2010; Salamonson & Lantz, 2005; Blissitt, 2016; McCutcheon et al., 2015; Hsu & Hsieh, 2011). Findings on student satisfaction with BL is inconsistent in the nursing literature (McCutcheon et al., 2015), however, findings from studies of undergraduate learners from other disciplines indicate an overall improvement in satisfaction with BL when compared to face-to-face instruction (Owston, York, & Murtha, 2013; Larson & Sung, 2009; Johnson et al., 2010).

Notable gaps exist within the literature on BL in undergraduate nursing curricula (McCutcheon et al., 2015), and research has suggested that newly developed BL modules should be tested repeatedly to identify differences and facilitate the development of effective BL in nursing education (Hsu & Hsieh, 2011). This current research further explores BL in the undergraduate nursing context, through a comparison of BL and traditional face-to-face learning in health assessment education.

RESEARCH QUESTIONS

- Is there any difference in self-efficacy scores between the students enrolled in the traditional face to face (F2F) method, versus students in the online blended (BL) course?
- Is there any difference in knowledge between the students in the traditional F2F method, versus students in the BL course?
- For students in the online BL course, what is overall student satisfaction with the blended learning course?
- What are the students' perceptions of the online learning environment?

METHODS

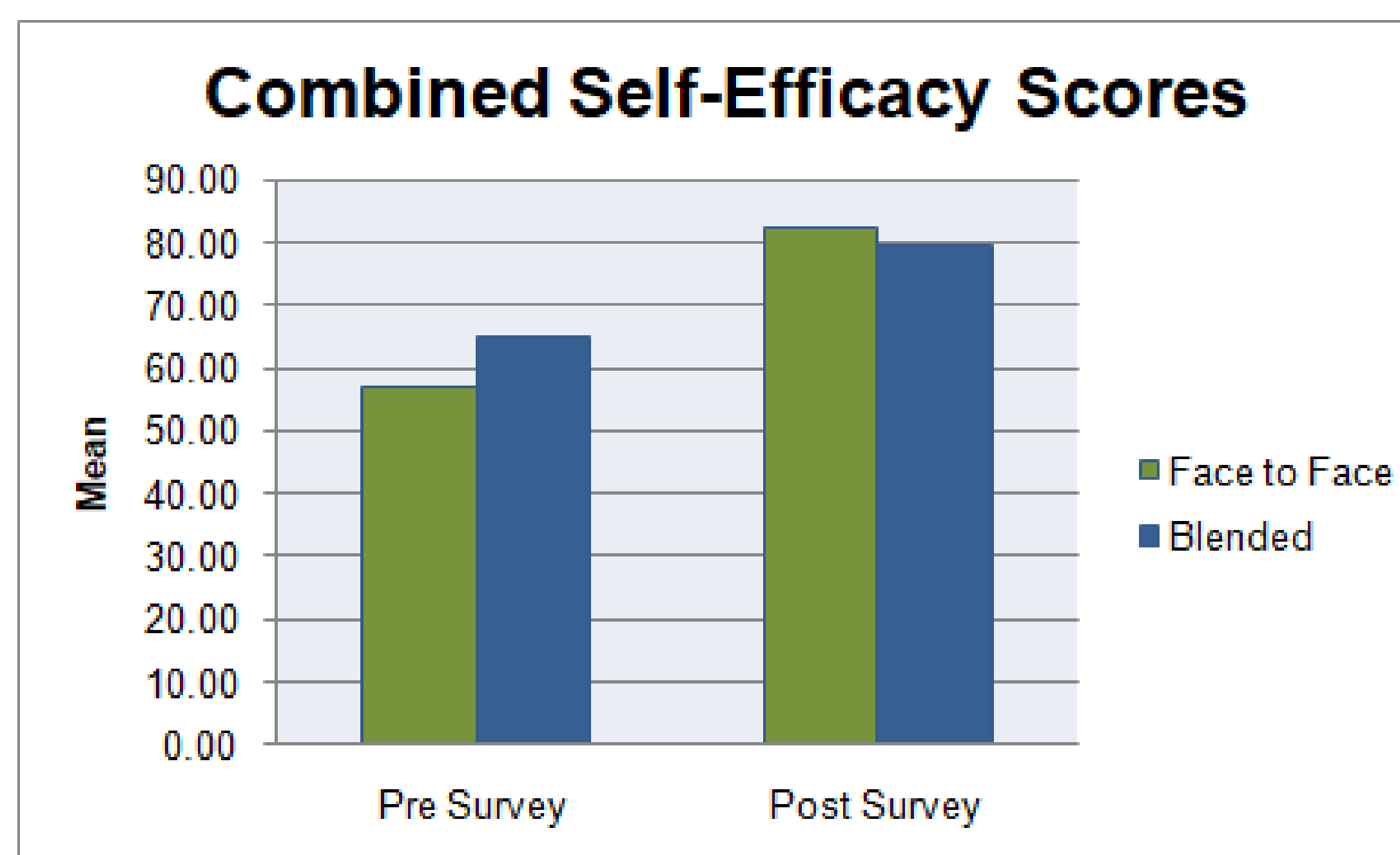
The study used a purposive sampling method to invite participants from two sections of an undergraduate Nursing (BScN) Health Assessment Across the Lifespan course. One section received course material and lectures through a BL format, and one section received material and lectures through the traditional F2F method. Questionnaires were administered during the first and final classes in both groups.

Self-efficacy (SE) was measured using a scaled questionnaire based on course outcomes. A modified Blended Learning Student Survey (BLSS) and Web-based Learning Environment Instrument (WEBLEI) were administered to the participants enrolled in the BL course, to measure student satisfaction and perceptions. Most questions in the BLSS and WEBLEI were on a 5-point Likert style scale. Exam marks were used to compare knowledge differences between the students in the traditional F2F course and students in the BL course.

RESULTS

Self-Efficacy (SE)

- At the end of the course, there was no difference in SE between the BL and F2F groups. There was a significant increase in SE in both groups.



Knowledge

- There was no significant difference between the two groups on exams.

Knowledge (Exam marks)			
BL Midterm	F2F Midterm	BL Final	F2F Final
Mean: 77.85	Mean: 78.21	Mean: 75.93	Mean: 76.52
SD: 8.37	SD: 9.08	SD: 7.64	SD: 8.67
Min: 59.62 Max: 90.30	Min: 59.62 Max: 94.23	Min: 53.91 Max: 88.70	Min: 60.87 Max: 90.43

RESULTS

Blended Learning Student Satisfaction

- 76% of respondents often or almost always felt a sense of satisfaction and achievement about this learning environment.
- 88% of respondents agreed or strongly agreed that overall they were satisfied with this course.

BLSS GROUPED DATA					
	N	Min	Max	Mean	SD
Course Satisfaction	25	2.5	5	3.96	0.87
Course Convenience	25	2.6	5	3.8	0.65
Course Engagement	25	2.27	4.82	3.48	0.68
Course Learning and Grades	25	2	5	3.38	0.85
Perceptions of Technology	25	2	5	3.86	0.68

Student perceptions of the online learning environment

- 92% of respondents agreed or strongly agreed that they were more engaged in this course compared to a typical face to face course that they have taken.
- 84% of respondents disagreed or strongly disagreed that this course required more time and effort compared to a typical face to face course that they have taken.

WEBLEI GROUPED DATA					
	N	Min	Max	Mean	SD
Access	25	2.86	5	4.50	0.57
Interaction	25	2.63	5	3.84	0.59
Response	25	1.88	5	3.54	0.79
Results	25	3.50	5	4.42	0.46

IMPLICATIONS & FUTURE DIRECTIONS

This study examined student satisfaction, perceptions, engagement and self-efficacy and contributes to the body of knowledge on BL instruction. Insights gained may be useful to nurse scholars, educators and other academic institutions utilizing blended learning pedagogies in their curricula. Multiple cohort data collection is underway. Phase two will explore students' lived experiences, perceptions and satisfaction with the BL course. Further research is required to increase sample size and will be repeated to identify any differences between BL and F2F.