

Flipping the Classroom to Improve Knowledge Retention Among Practical Nursing Students

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Abstract

Traditional nursing lectures consist of a power point, and a lecturer discussion of a particular subject, such as a disorders, treatments, or pharmacology (HEW & LO, 2018). Flipping the classroom is a lecture style tailored to a variety of student learning styles, and utilizes prerecorded lectures, and participation in projects or discussions during class time. There are four main learning styles: visual, auditory, kinesthetic, and reading/writing. Each style comes with their own strategies, but all have similar advantages, including the opportunity to learn in the best way for individual students. Flipping the classroom avoids the typical lecture, and implements activities that will engage students of all learning styles. Flipping the classroom enhances student education, increasing accountability for learning, and critical thinking. Funds utilized by Perkins V will be utilized to assure simulation in didactic courses are available to students, as well as outside typical class time to allow students to practice.

Keywords: flipping the classroom, nursing, student, learning style

Methodology

Research Question:

Does flipping the classroom in didactic courses increase student knowledge, engagement, and confidence?

Hypothesis:

Flipping the classroom in didactic courses will increase student knowledge of disease processes, clinical reasoning, and implementation of patient appropriate interventions.

Design:

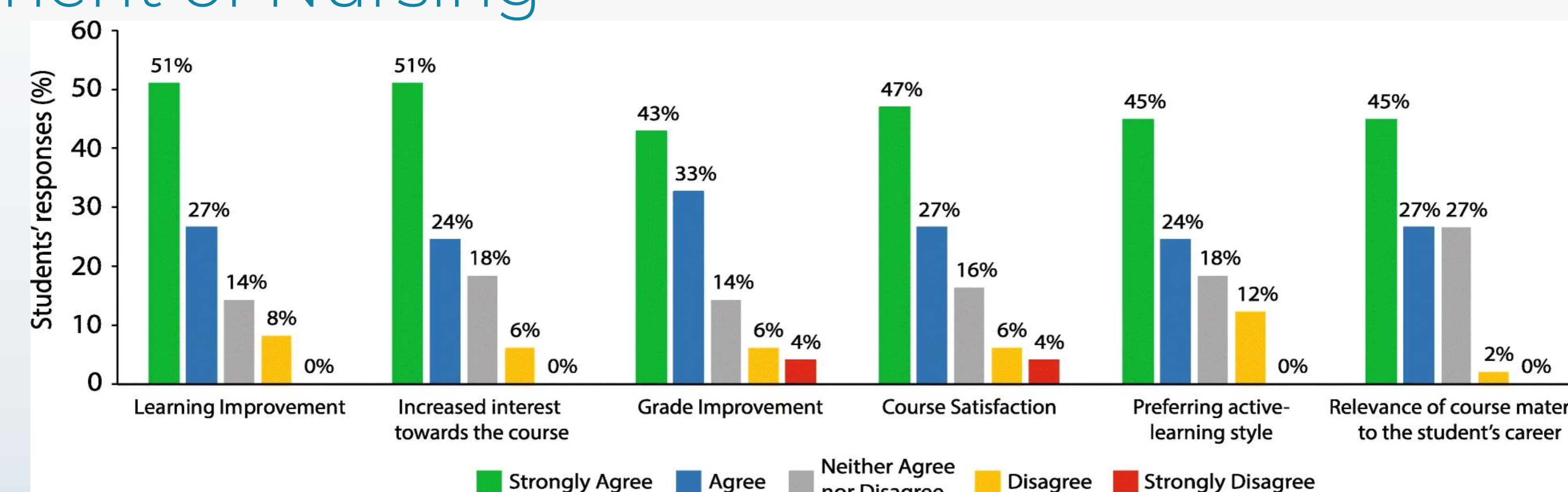
Johns Hopkins Nursing model utilized to implement this project. Evidence has been gathered, and will be implemented and evaluated. All students will participate in traditional and flipped classroom. Traditional classroom activities will act as the control group. Exam scores, final grades, and student satisfaction surveys will be completed.

Ethics and Legal:

- Informed consent will be obtained prior to implementation of simulations.
- IRB approval to be obtained prior to implementation of research and interventions.

Funding:

- Perkins funds are an option as those funds are specifically allocated for technical and vocational programs (Perkins, 2018)

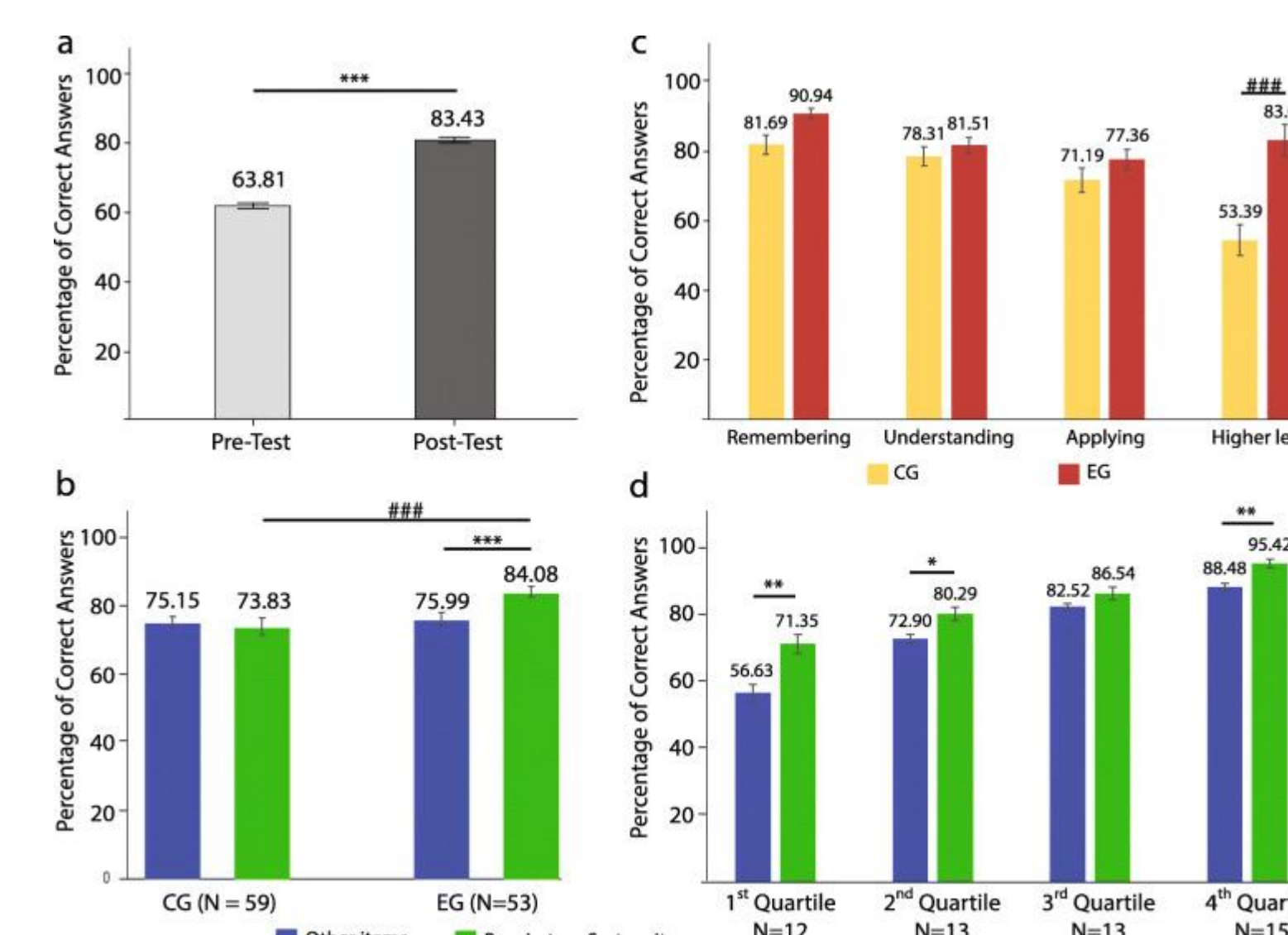


Review of Literature

Bay Atlantic University states there are four main learning styles: visual, auditory, kinesthetic, and reading/writing (2021). While visual learners prefer charts, graphs, and videos, auditory learners learn best when information is spoken or heard. Kinesthetic learners learn more efficiently in a hands-on environment, while reading/writing learners learn best when reading or writing information.

Flipping the classroom allows for multiple activities, encouraging student engagement with a focus on individual learning styles. In comparison to traditional lecture styles, student engagement was significantly improved, as well as learning retention (HEW & LO, 2018).

Joseph et al. (2021) also state final exam grades were significantly improved after flipping the classroom, and increased student satisfaction (see statistics above and below).



There are disadvantages as well noted by American University (2020). These disadvantages include technology access, increased stress with group activities, and student workload outside of school. One method of flipping the classroom is Flipping the Teacher, in which students take on the role of the educator, creating the lesson and teaching the content. Limited technology access resulted in decreased student satisfaction, and calls for increased support and frequent assessment of technological competence by educators (Barranquero-Herbosa et al., 2022).

According to Özbay and Çınar (2021), a flipped classroom may also meet needs of a diverse population more than that of a traditional classroom. A flipped classroom builds on professional knowledge, as well as critical thinking and analytical skills. This study determined flipping a nursing classroom is not effective, and nursing courses should be structured in a flipped manor (Özbay and Çınar 2021).

Conclusion

Flipping the classroom should be implemented for many reasons. Student's learning is tailored to the way they learn best, using their preferred learning style (visual, auditory, kinesthetic, or reading/writing). Students given opportunities to learn in a way that fits them has been shown to increase student accountability for their learning, and encourages student participation in group activities (Bay Atlantic University, 2021). By offering multiple ways of learning in didactic courses, students feel more included, increasing engagement and retention of knowledge.

Recommendations

Future Research:

- Larger sample size
- Creation and implementation of a standardized tool to document progress
- Flip all content, as opposed to half of content

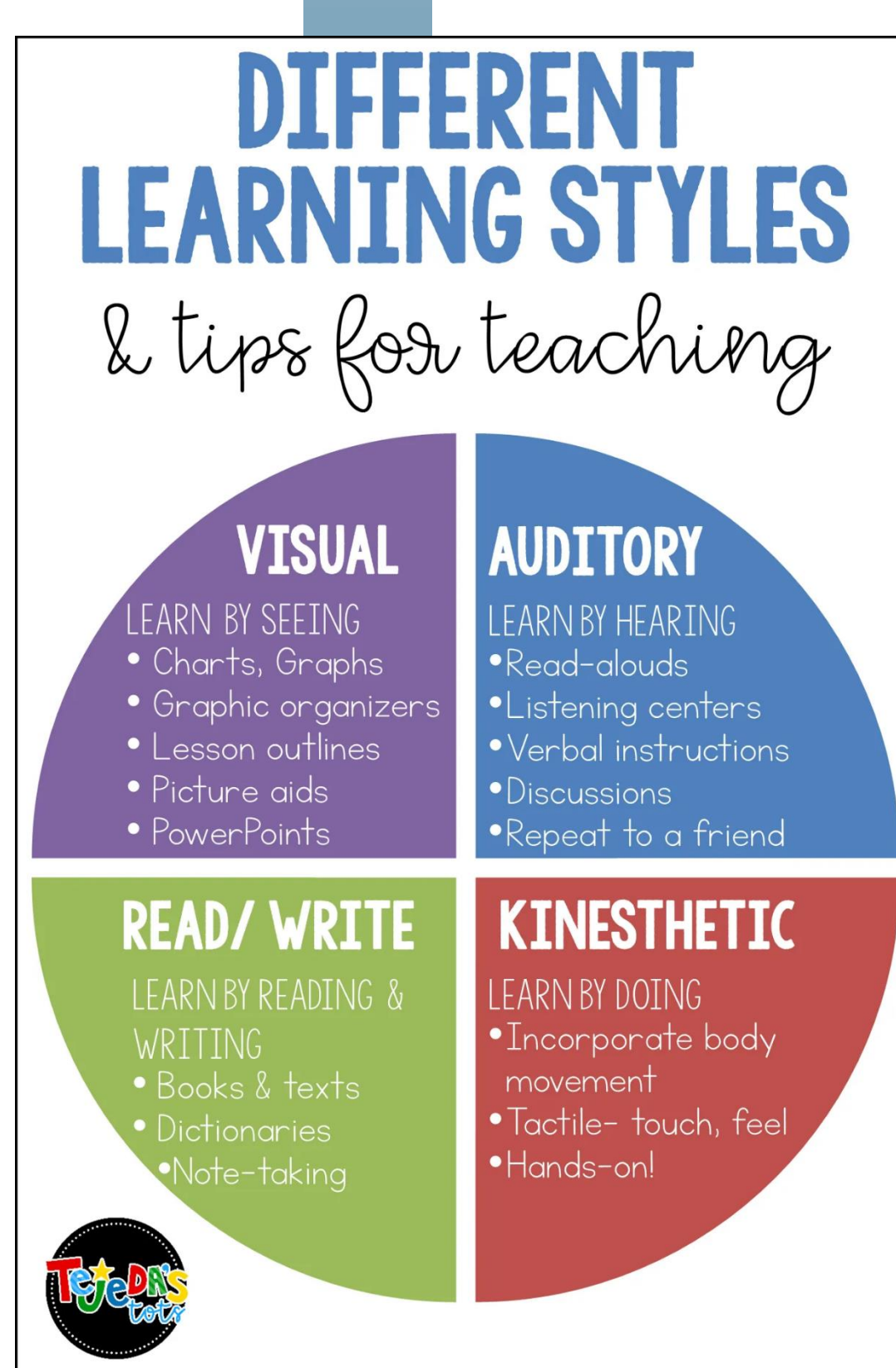
It is recommended that faculty flip the classroom to utilize all learning styles, and improve student satisfaction, knowledge retention, and increase exam and final grades.

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Introduction

Traditional lectures consist of a lecturer educating students about a variety of topics, such as disease processes, anatomy and physiology, treatments, and pharmacology. Research has shown this is not the most effective way to engage students in class time, and increase knowledge retention. Because students learn in a variety of ways, educators cannot realistically utilize traditional lectures with expectations that students will absorb all necessary information. Flipping the classroom will assure students with all learning styles have the opportunity to learn in an environment that is tailored to them, and enhance knowledge.



Anticipated Findings

Students will watch prerecorded lectures prior to class. Students will participate in classroom activities, including case studies, simulations, and discussions. Students will report that engagement of above activities will result in increased confidence, understanding of interpretation of content, and retention of knowledge.