

Enhancing Business Education through Flipped Classroom Pedagogies: The Systematic Review

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Abstract

Overview: As student-centred pedagogical methods have increasingly gained attention in recent years, the COVID-19 pandemic has accelerated the adoption of flexible and online delivery modes, making the investigation of the flipped classroom approach in business education timely and relevant. The present study represents a systematic review of the impact of flipped classes on the effectiveness of business education, with a focus on the perspectives of learners. The primary objective of this systematic review is to assess the use of the flipped classroom model in business education and evaluate its associated pedagogical outcomes. By examining the experiences and opinions of business learners in this regard, this study aims to contribute to the ongoing discourse surrounding the effectiveness of student-centred teaching approaches in enhancing engagement, motivation, and academic performance in business education. **Review Methods:** After screening for inclusion/exclusion criteria, each paper was evaluated using a critical appraisal tool. Data extraction and analysis were completed on all included studies. **Results:** This systematic review screened 43 titles and abstracts, resulting in eight included studies. The themes identified were academic performance outcomes, simulation as part of the flipped class method, formative and summative, engagement and student satisfaction implementing the flipped classroom. All authors critically appraised the quality of the included studies. **Conclusions:** Using the flipped classroom in higher education business programmes yielded positive academic outcomes yet resulted in some challenges. Flipped classroom approach holds significant potential to transform business education by providing a student-centred approach that better prepares students to apply their learning in practice. Moreover, the efficacy of the flipped classroom approaches in promoting academic performance. Students' engagement in the flipped classroom model was achieved when academics informed and rationalized the purpose of the flipped classroom model to students. However, no studies in this review identified how to sustain this engagement over the course of a se-

mester or academic year. The systematic review looked at Cultural context and underpinned how resistance in some cultural contexts, such as those where learners are accustomed to traditional lecture-based teaching, may resist flipped learning. More research is needed to explore how to adapt flipped classrooms to different cultural settings. Furthermore, the application of flipped classroom postgraduate setting is under-researched, such as how to support students who struggle with pre-class work or how to design effective in-class learning activities.

Keywords

Flipped Classroom, Higher Education, Business Education, Pedagogy, Systematic Review

1. Introduction

Higher education has come under intense scrutiny in recent years in demonstrating student learning (Gilboy et al., 2015). As a result, the concept of learning continues to evolve, particularly with the utilisation of various teaching and learning strategies to promote students' learning and autonomy (Al-Samarraie et al., 2020). There is a continuing search for ways to improve the quality of higher education to ensure students achieve their intended learning goals (Williams et al., 2019).

The traditional classroom model, where teachers deliver lectures and students take notes, has long been the norm in education. However, a student-centred approach has gained popularity in recent years. There has been an increase in the use of the flipped classroom both in K-12 and higher education settings in recent years (Strelan et al., 2020). In flipping the classroom, students are able to engage in active learning during class time by using readily accessible technology to free up lecture time (Roehl et al., 2013; Gilboy et al., 2015).

A recent Ebsco data search on the term "flipped" in the last five years yielded approximately 13,700 articles, highlighting the growing interest in this area. The adoption of the flipped classroom pedagogy has experienced a marked surge in popularity in recent years, particularly in light of the advancements in digital technology and its ability to facilitate remote learning. However, the efficacy of this approach in enhancing student performance remains a subject of intense debate and scrutiny within the educational community. Indeed, it remains uncertain to what extent the flipped classroom modality yields superior learning outcomes, which subject areas and levels of student learning may be most responsive to this approach, and the factors that mediate the effectiveness of this instructional method. Moreover, identifying the key ingredients contributing to the flipped learning effect, remains challenging (Yin, 2020). This paper aims to review the existing literature on the flipped classroom and explore its impact on student learning outcomes in higher education.

Why Is This Topic Important?

The need for business students to develop problem-solving, reasoning, and practical application skills has been widely recognised, leading to calls for educational reform in higher level business programmes (Brabazon, 2020; Schaltegger, Hansen, & Lüdeke-Freund, 2016). Therefore, a various pedagogical approach, such as team-based, problem-based, and case-based learning, has been implemented to promote student-centred learning (Cooke, 2019; Denning & Dunham, 2017).

The flipped classroom model has recently emerged as an innovative pedagogical approach that is gaining traction in higher education, where students accessing course content outside of class and using class time for collaborative problem-solving activities (Brewer & Movahedazarhouli, 2018). Although this approach has been shown to be effective in promoting active learning and engagement among undergraduate students in engineering studies (Freeman et al., 2014); there is a paucity of research on the implementation and effectiveness of the flipped classroom approach in master's degree programmes (Baker & Woods, 2018). Further research therefore is needed to explore the potential benefits and challenges of implementing the flipped classroom model in the context of master's level business education.

Thus, conducting a systematic review is essential for advancing our understanding of the effectiveness of the flipped classroom model in promoting student performance and can help to inform evidence-based practices in higher education.

2. Key Literatures

2.1. Flipped Classroom

The flipped classroom is a pedagogical approach involving students learning via pre-prepared videos or multimedia materials before the class and engaging in active and social learning activities whilst in the class (Lin & Hwang, 2018). This approach is underpinned by the belief that having more opportunities to interact with a teacher and peers and to apply knowledge in practice, can improve students' learning performance and higher-order thinking abilities (Hwang et al., 2019).

The flipped classroom reflects a “set of pedagogical approaches that move most information-transmission teaching out of class, use class time for learning activities that are active and social; and require students to complete pre-and/or post-class activities to fully benefit from in-class work (Strelan et al., 2020).

Abeysekera and Dawson (2015) contented that the success of the flipped classroom largely depends on students' motivation to learn and their willingness to engage in significant out-of-class work.

The teaching approach of flipped classrooms has many benefits for students, including promoting active learning, enhancing critical thinking skills, and providing ample opportunities for peer interaction and collaboration (Gilboy et al., 2015). Furthermore, flipped classrooms offer a flexible learning environment

that caters to diverse learning styles and preferences. However, despite its advantages, implementing a flipped classroom approach can pose challenges. For instance, students may struggle to complete pre-class work, and distractions during video lectures may hinder their learning progress (Howell, 2021). Additionally, some students may find it challenging to focus on video lectures and feel lost without instructor guidance. In some cultural contexts, such as Taiwan, where learners are used to following teacher instructions, flipped classrooms may face more resistance (Chen, Liou, & Fen, 2019).

Despite these challenges, research has shown that flipped classrooms can positively impact student's academic performance. For example, a meta-analysis of 10 studies found that students in flipped classrooms achieved significantly higher grades compared to those in traditional classrooms (Van Vliet, Winnips, & Brouwer, 2015). Furthermore, flipped classrooms can improve students' engagement and motivation and promote more active learning and critical thinking (Williams, Horner, & Allen, 2019).

In USA sample of 152 IB level students between 2016-2018 Pre Covid with the flipped classroom, there was a significant improvement in student attendance, exam grades, and overall satisfaction of students with the course. The group work involved in these activities allowed students to practice important skills (e.g., collaboration) and created a sense of community in the classroom through increased student-student and instructor-student interactions. Students seemed to enjoy learning by teaching. The instructor created an environment conducive to learning", which benefits mostly from the flipped learning. The class performance improved significantly from the semester before to after the new strategy. The grade for all four exams increased, and the overall course grade increased from 82.8 to 86.8. The improved score for student evaluation of teaching provides supportive evidence for) that flipped classroom with student teaching improves the overall satisfaction of students with the class (Yin, 2020).

Flipped classroom teaching has its fair share of challenges. For one, students must understand why the class is taught in such a way to get the most out of it (Gilboy et al., 2015). While this approach offers many benefits, educators should also be aware of potential resistance and difficulties that may arise. To make the most of flipped classrooms, educators must plan carefully, evaluate continuously, and provide the right support for students to thrive in this learning environment.

2.2. Challenges of the Flipped Classroom

In addition to the challenge of ensuring student awareness and understanding of the flipped classroom model, there are several other challenges that educators may face when implementing this approach. For instance, a study by Lage, Platt, and Treglia (2000) found that some students may struggle with the self-directed nature of the flipped classroom, particularly if they are accustomed to a more traditional lecture-based approach. Other challenges may include technological issues, lack of accountability, and difficulty monitoring student progress (Abey-

sekera & Dawson, 2015).

Furthermore, implementing the flipped classroom model may require significant time and effort on the part of the educator, particularly in terms of developing and creating high-quality instructional materials (Tucker, 2012). The lecturers may also need to adapt their teaching methods and strategies to accommodate the flipped classroom's more collaborative and interactive nature (Roach, 2014). Moreover, the flipped classroom emphasises the human element in relation to the technology and group activities in which the students perform, operate, network, and communicate. However, if this can be overcome, overall, students in the revised flipped classroom had better academic achievement and learning satisfaction than those in the conventional flipped classroom (Chen et al., 2019).

However, despite these challenges, evidence suggests that the flipped classroom model can be highly effective in promoting student learning and engagement. For instance, a meta-analysis by Hew and Lo (2018) found that the flipped classroom model was associated with significant improvements in student academic achievement in medical and healthcare degrees.

Overall, while there are challenges associated with implementing the flipped classroom model, these can be overcome with careful planning and attention to pedagogical principles. The employment of this approach can offer various potential advantages for educators across multiple contexts. Such benefits include but are not limited to enhanced student engagement, the development of meta-cognitive skills, and the ability to address linguistic challenges. Consequently, this approach can be deemed a valuable tool for instructional purposes.

1) Student engagement

In a university context, students are expected to engage in the course material regularly. This is where flipped/inverted classroom is used as a solution, mainly, to take the lecture from in-class time and move it to pre-class preparation so that in-class. An Empirical Research conducted by Gilboy et al. (2015) investigated the effectiveness of the flipped classroom model on creating active learning and engagement among undergraduate pharmaceutical students in North Carolina. The study utilised a survey instrument to collect data from the first-year undergraduate students who participated in the research. The findings of the study indicated that the flipped classroom model had a positive impact on creating active learning and engagement among the students. The students ranked flipped classroom short sessions as more productive than face-to-face lecture sessions. However, the researchers noted the current sizes are large in this cohort. In addition, the delivery of the flipped classroom model focused primarily on Bloom's taxonomy, with the basic criteria being covered during the online portion of the course. Higher levels of the taxonomy were covered during face-to-face sessions towards the end of the class.

The researchers also noted that designing the online portion of the flipped classroom model, which they referred to as offloaded content, took into account the work that students could master individually. The online portion most often

included lower-level learning objectives, while the face-to-face sessions were designed to cover higher-level objectives.

2) Meta cognition skills

One of the key advantages of the flipped classroom model is its potential to promote the development of metacognitive skills in students. Metacognition refers to the ability to think about one's own thinking, and includes processes such as planning, monitoring, and evaluating one's own learning (Flavell, 1979). By providing students with opportunities to engage in self-directed learning activities, the flipped classroom model can help to foster the development of these essential metacognitive skills.

Specifically, the flipped classroom model provides students with increased control over their own learning, allowing them to engage in activities that promote reflection and self-assessment (Al-Samarraie et al., 2020). For example, students may be asked to complete pre-class activities such as watching videos or reading texts, which can help to activate prior knowledge and promote reflection on what they already know about a topic. In-class activities, on the other hand, can be designed to promote deeper understanding and higher-order thinking skills, such as analysis, synthesis, and evaluation (Bishop & Verleger, 2013).

By engaging in these types of activities, students are able to develop a more nuanced understanding of their own learning processes and are better equipped to regulate their own learning behaviours (Zhang, Bonk, & Zhang, 2015). This can include setting goals, monitoring progress, and evaluating the effectiveness of different learning strategies (Artino & La Rochelle, 2020). Ultimately, by promoting the development of these metacognitive skills, the flipped classroom model can help to facilitate more meaningful and sustainable learning outcomes for students.

3) Flipped in addressing linguistic issues

The flipped classroom model has been shown to be effective in addressing linguistic issues in the higher education sector. Recent research conducted in China in 2022 on identifying challenges and opportunities faced by Liverpool University delivered in China has found out that the linguistic challenges students are facing could be addressed with the use of flipped classroom technique flipped-classroom approach enables the students to watch pre-recorded online lectures, look through relevant teaching materials and participate in online discussion at home (Sun et al., 2022).

According to a study by Kaya and Turan (2019), the flipped classroom model was found to be effective in improving the speaking skills of English as a foreign language (EFL) student in a higher education setting. The study found that the flipped classroom model allowed for more individualized and student-centred learning, which led to greater engagement and improved learning outcomes.

Another study by Kim and Park (2018) found that the flipped classroom model was effective in improving the writing skills of Korean EFL students in a higher education setting. The study found that the flipped classroom model al-

lowed for more active and collaborative learning, which led to greater motivation and improved writing performance.

According to [Moffett \(2015\)](#), the primary advantage of the flipped classroom is its ability to promote collaborative learning and discussions within the classroom. Unlike independent learning, the flipped approach emphasizes the sharing of ideas, knowledge, and experiences, promoting interdependence ([Boud, 2001](#)). This student-centred approach has been shown to facilitate deeper learning ([Balan, Clark, & Restall, 2015](#)), and [Ryan and Deci \(2000\)](#) found that students who feel supported and valued by their peers and instructors are more likely to develop a positive attitude towards learning. Furthermore, the flipped classroom places an emphasis on both human-technology and human-human interactions, making it more accommodating to students with diverse backgrounds and learning styles.

3. Methodology

The methodology employed in this research paper involved a systematic review, which utilised the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to ensure rigor and transparency ([Albeha et al., 2020](#)).

A comprehensive search was conducted in Feb and March 2023 in Business source premier electronic databases, covering the period from 2018 to 2023. The search strategy included keywords and Boolean operators, AND/NOT were used to combine search terms including Flipped, flip, students' performance, masters, and higher education and resulted in a total of 491 peer review articles.

3.1. Inclusion and Exclusion Criteria

Studies included were peer reviewed reports of primary research results of 43 were that investigated the use of the flipped classroom for business students undertaking higher education. Studies were excluded if they involved secondary or other streams of education. Review articles, conference papers, editorials, and grey literature were also excluded.

3.2. Selection of Studies

Titles and abstracts were reviewed independently by two of the researchers (SS and ST), as used the abovementioned criteria to determine paper eligibility to be included in the study. The full text of potentially relevant studies was reviewed for final inclusion.

3.3. Search Outcomes

The initial database search yielded 43 references, which were then imported into the reference management software Mendeley. Following the removal of duplicates, 26 references remained. The remaining references were screened for relevance based on their titles and abstracts. In cases where there was uncertainty

about whether a paper should be included, the full text was obtained and evaluated by all authors. Ultimately, eight papers were included in the review, all of which were accessed through university channels. Nine papers were excluded based on the pre-determined inclusion and exclusion criteria (Table 1).

All authors contributed to the extraction and categorization of data. Data included author(s)/year of publication, country of origin, aim of study, design, sample and study population, data collection, methods of analysis and reported outcomes (Refer the table above). Data describing the flipped classroom interventions were also captured including course type, frequency, pre-class preparatory strategies and within-class active learning strategies. patterns were identified, categorized into themes, summarised and systematically synthesized (Figure 1).

Table 1. Summary of the key literatures.

Authors	Summary of the context
1-Fang, Jim, Vong, & Fang, Jeff 2022, “Exploring student engagement in fully flipped classroom pedagogy: Case of an Australian business undergraduate degree”, Journal of Education for Business, vol. 97, no. 2, pp. 76-85, viewed 16 March 2023. (D Journals)	<p>Location: Australia</p> <p>Sample group: UG first year degree fully flipped classroom.</p> <p>Sample number-142 sample size and used Qualitative technique. Thematic analytical tools used.</p> <p>Outcome</p> <p>The study identifies triggers for student engagement related to self-efficacy, emotion, well-being, and belonging.</p> <p>The benefits of the study include improving the quality of education and enhancing the learning experience.</p> <p>Key limitations</p> <p>UG However, challenges such as designing effective learning activities and engaging students who prefer traditional teaching methods need to be addressed.</p>
2-Morin, J., Tamberelli, F. and Buhagiar, T. (2020) “Educating business integrators with a computer-based simulation game in the flipped classroom”, Journal of Education for Business, 95(2), pp. 121-128.	<p>Location: USA</p> <p>Sample group: UG students.</p> <p>Sample -206 samples and Quantitative technique used</p> <p>Outcome: Simulation combined flipped classroom has led to achieve development of soft skills within the students group</p>
3-Walker, K.W., 2022. A silver lining for pandemic-weary libraries: How blended and flipped instructional programs have improved upon pre-pandemic norms. The Journal of Academic Librarianship, 48(6), p.102595.	<p>Location: USA</p> <p>Sample group Foundation degree students</p> <p>Sample number: 813 sample size and Quantitative techniques used.</p> <p>Outcome</p> <p>This research found that post-test did demonstrate significant improvement in their understanding of concepts after participating in a blended and flipped library instructional program. Students who complete a blended and flipped IL (Information Literacy) instructional program demonstrate an improved understanding of concepts on which they are tested.</p>
4-Bitetti, L. (2019), Activate Business Model Learning Through Flipped Classroom and Backward Design, Vol. 7, No. 3, pp. 100-110	<p>Location: Switzerland</p> <p>Sample group: Master of Science in Business Administration with Major in Innovation Management students’ group</p> <p>Sample number: 25 Qualitative thematic technique used</p> <p>Outcome: The flipped classroom and backward design to facilitate the development of students’ competencies. The results confirm this method is effective, though it requires a significant shift in both lecturers’ and students’ roles.</p>

Continued

<p>5-Chen, Y-T, Liou, S & Chen, L-F 2019, "The Relationships among Gender, Cognitive Styles, Learning Strategies, and Learning Performance in the Flipped Classroom", <i>International Journal of Human-Computer Interaction</i>, vol. 35, no. 4/5, pp. 395-403,</p>	<p>Location: Taiwan Sample group: first year IT degree college students' group Sample number 62 quasi-experimental quantitative inferential statics used. Outcome There were two groups used in the sample experimental group (N = 29) employed the revised flipped classroom format, while the conventional flipped classroom model was used with the control group (N = 27). The results led to the following conclusions: (1) Cognitive style and learning strategy significantly affected students' learning performance and satisfaction in both the flipped and revised flipped classrooms. also had higher academic achievement and more satisfaction. Key limitations how this will have an impact on implementation of the flipped process has not addressed.</p>
<p>6-Mingorance Estrada, Á.C., Granda Vera, J., Rojas Ruiz, G. and Alemany Arrebola, I., 2019. Flipped classroom to improve university student centered learning and academic performance. <i>Social Sciences</i>, 8(11), p.315.</p>	<p>Location: Spain Sample group: New UG Degrees in Early Childhood Education and Primary School Education. Sample number: 555 sample size with mixed methods implemented. Outcome The analysis revealed that a flipped classroom scores higher than a conventional, lecture-oriented setup on the following criteria: student involvement, task orientation, and innovation. The study corroborated the pedagogical effectiveness of the flipped learning model in promoting collaborative learning for operations management. The results demonstrated that there are no significant differences in performance, although the students that worked with the traditional methodology displayed a poorer performance, regardless of the specialisation.</p>
<p>7-Martínez-Jiménez, R. and Ruiz-Jiménez, M.C., 2020. Improving students' satisfaction and learning performance using flipped classroom. <i>The International Journal of Management Education</i>, 18(3), p.100422.</p>	<p>Location: Spain Sample group: Undergraduate students' groups Sample number: 63 Quantitative Outcome: Results show that students are very satisfied with the experience and with the summative-formative assessment that has been used. In addition, students consider that their learning process has been better with flipped classroom.</p>
<p>8-Williams, B., Horner, C. and Allen, S., 2019. Flipped v's traditional teaching perspectives in a first-year accounting unit: an action research study. <i>Accounting Education</i>, 28(4), pp.333-352.</p>	<p>Location: Tasmania Sample group: Undergraduate first-year introductory accounting students Sample number: 126 Mixed methods Outcome: The research shows that there are significant differences between the flexible students, they strongly agreed they had learnt more about the topic using the flipped approach. Limitations Results indicate further action research is required if the flipped learning approach is to be considered a serious teaching and learning.</p>

4. Results

This section presents a systematic review of the use of the flipped classroom approach in business programs in higher education and the associated outcomes. The review included eight studies that met the inclusion criteria, and the interventions lasted for the duration of the study unit or lengthy period. Four studies employed quantitative approaches, and two studies used mixed methods design

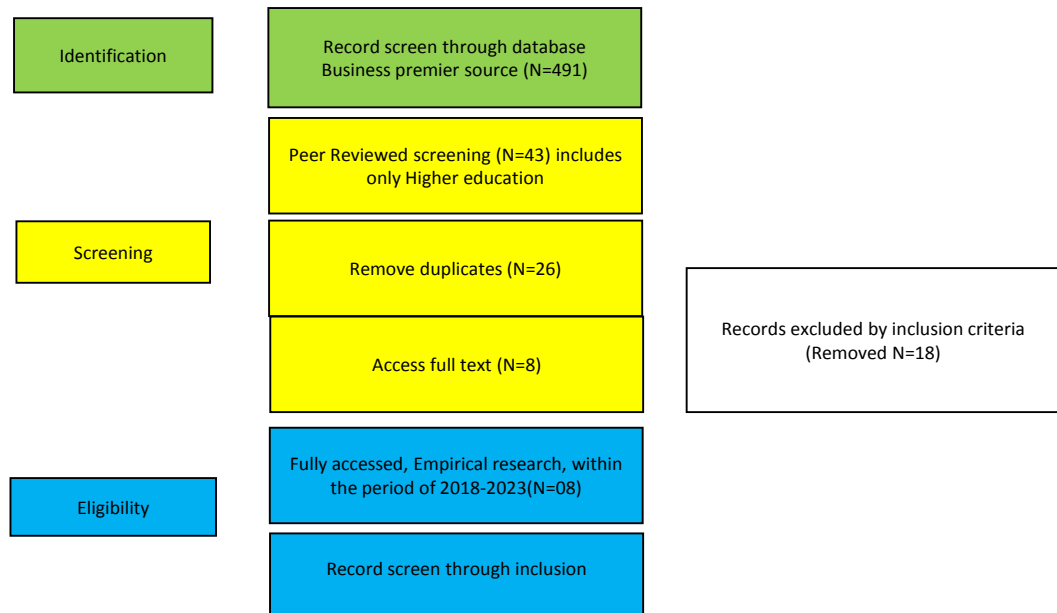


Figure 1. Filtering funnel image (Developed by the author).

and rest two of qualitative studies. The studies focused on undergraduate and postgraduate students, with the lowest sample size being 25 and the highest being 813.

The researchers used a range of preparatory and in-class active learning strategies, including simulation, as part of the flipped classroom intervention. Four studies used satisfaction scores (A journals), one study used formative and summative assessment and simulation results (B Journals), and one study looked at the scales of involvement, task orientation, and innovation (C Journals). Two studies reflected on student engagement in relation to self-efficacy, emotion, well-being, and belonging (D Journals).

Four of the studies compared the academic performance of students in the flipped classroom to traditional approaches. The study by [Martínez-Jiménez et al. \(2020\)](#) found no significant differences in final exam scores between students in traditional lectures and those in the flipped classroom. [Mingorance et al. \(2019\)](#) reported that students in the flipped classroom group performed significantly better on tests throughout the course. Overall, the review provides valuable insights into the effectiveness of the flipped classroom approach in business education programs.

4.1. Student Engagement

The underpinning literature demonstrates that student engagement is a crucial aspect of effective teaching and learning in higher education. In this regard, two studies included in the present review specifically examined the impact of the flipped classroom approach on student engagement. One study, which employed a qualitative design and was conducted in Australia, and the other study, which used a quantitative approach and was conducted in the USA, both focused on

undergraduate students. The results of both studies revealed a significant increase in student engagement during the in-class session as a result of the flipped classroom intervention. These findings are consistent with prior research that has highlighted the benefits of active learning and student-centered pedagogies in promoting engagement and improving learning outcomes in higher education settings.

4.2. Summative Results

The present review identified a single study that specifically investigated the impact of simulation experience, employed as part of a flipped classroom approach, on formative and summative learning outcomes. Although the results of this study indicated that students were generally satisfied with the simulation experience associated with the flipped classroom, the effects of this intervention on subsequent formative and summative assessments have not yet been systematically reviewed. It is important to note that while student satisfaction is an important aspect of the learning experience, it is not necessarily a reliable indicator of academic success or achievement. Therefore, further research is needed to explore the relationship between simulation-based flipped classroom interventions and their impact on a broader range of learning outcomes, including formative and summative assessments.

Such research could provide valuable insights into the potential benefits and limitations of this approach for promoting effective teaching and learning in higher education contexts.

4.3. Challenges of Implementing the Flipped Classroom in Master's Level

The reviewed literature highlights a scarcity of studies investigating the effectiveness of flipped classroom approaches in Masters-level education. One study, conducted by [Mingorance et al. \(2019\)](#), aimed to address this gap and identified potential challenges faced by faculty in implementing flipped classroom approaches. Specifically, the study expressed concern that faculty inexperience in teaching using a flipped classroom approach could influence the outcomes of such interventions. Nonetheless, it is important to note that the flipped classroom approach, when combined with backward design, has been identified as an effective method to foster the development of business models and promote the development of student competencies. These findings underscore the need for more research to assess the applicability of flipped classroom approaches in Masters-level education and to explore strategies for addressing potential challenges associated with their implementation.

5. Discussion

The present systematic review aimed to elucidate the extent to which the flipped classroom approach has been applied in Business education and its associated

outcomes. Given the recency of the flipped classroom phenomenon and the impact of Covid-19 on the delivery of education, the number and heterogeneity of studies included in this review were limited. Nonetheless, the review results suggest that the flipped classroom approach holds significant potential to transform business education by providing a student-centred approach that better prepares students to apply their learning in practice.

Moreover, the efficacy of the flipped classroom approach in promoting academic performance has been demonstrated in other practice-based disciplines, such as pharmacy and nursing (Betihavas et al., 2016). Furthermore, the findings of the present review are supported by corroborating evidence from prior research that indicates flipped classrooms offer increased opportunities for students to develop critical thinking skills and soft skills development (Morin et al., 2020). These findings underscore the potential of the flipped classroom approach to promoting more effective and engaging teaching and learning experiences in higher education settings. However, further research is needed to better understand the underlying mechanisms that facilitate these outcomes and to identify strategies for optimizing flipped classroom implementation in diverse educational contexts.

6. Limitations

Despite the extensive and inclusive search strategy employed in this systematic review, there is a possibility that some relevant studies may have been missed. To mitigate the risk of oversight and ensure that the review was rigorous and comprehensive, the researchers developed logic tables. They applied the search strategy to major business premier databases like Ebsco. Additionally, the researchers took measures to minimize the impact of potential limitations by involving two independent reviewers in the selection and extraction stages of the study. This approach enabled a more objective and thorough evaluation of the studies and facilitated the identification of any discrepancies or inconsistencies. These efforts contribute to the rigour and validity of the review findings and highlight the importance of employing a meticulous and systematic approach in conducting and reporting on systematic reviews in higher education research.

7. Conclusion

This systematic review of eight studies provides valuable insights into the implementation and outcomes of the flipped classroom in higher education primary undergraduate business management degree programmes. The findings underpin the potential utility of this approach for others considering implementing the flipped classroom in their courses. The review highlights the need for further research in business education, particularly in comparison to other health disciplines. The flipped classroom's student-centeredness provides flexibility and can enhance opportunities for students to develop and apply the soft skills required for business units. While the flipped classroom has been associated with high

levels of student satisfaction in one study, evidence of its impact on academic performance remains inconclusive. Variations in the relationship between student satisfaction and academic performance with the flipped classroom model necessitate further elucidation through empirical inquiry. Future research should focus on examining the impact of the flipped classroom on postgraduate business studies and exploring the value of pre- and within-class active learning strategies, as well as the outcomes of the flipped classroom using alternative measures. Despite the need for further evidence, the flipped classroom can potentially transform business education and offers an exciting opportunity for educators seeking to enhance student learning outcomes.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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