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The Impact of Online Collaborative Team Teaching on Student Achievement Motivation in Financial Market and Banking Services Course

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Abstract

Online collaborative team teaching may not be a novel idea in the West, but many Asian countries have yet to start catching up with incorporating such teaching approaches in class. To date, there is a dearth of research on online collaborative team teaching linked to student achievement motivation in Malaysian higher education institutions. This paper explores students' perceptions of online collaborative team teaching conducted by two universities in Malaysia and the impact of its implementation on student achievement motivation. Data for this study were gathered through an online questionnaire survey. Using descriptive analysis, findings reveal that the majority of the students regarded online collaborative teaching as a positive experience and had strong motivation in achieving their learning goals. Implications for online collaborative team teaching are suggested to popularise the approach for better achievement motivation and learning outcomes in Malaysia.

Keywords: online collaborative team teaching, achievement motivation, learning goals, learning outcomes.

1. Introduction

Enrolling in a university is one thing; obtaining academic success in a plan of study is quite another. Many important aspects influence a student's performance in higher education. Nevertheless, besides students' cognitive abilities and achievement motivation (Plante et al., 2013; Wigfield, 2016) as the best single predictors of academic success, quality teaching is also a significant determinant (Kassab, Al-Shafei, Salem & Otoom,

2019). The aim of quality teaching is that students would reach a deep understanding of the course content which would motivate them to achieve their learning goals. However, quality teaching in higher education still presents several challenges.

Financial Market and Banking Services is one of the core courses for degree students of Bachelor of Business Administration (Hons) at the Finance, Faculty of Business and Management, Universiti Teknologi MARA Cawangan Kelantan. Unfortunately, the failure rate is high with slightly more than 20 percent every semester. To improve the student's performance, the course instructors formed a team-teaching collaboration with instructors from the Faculty of Technology Management and Technopreneurship, Universiti Teknikal Malaysia Melaka. Considering the difficulties (time-consuming and costly to travel etc.) of realising face-to-face collaborative teaching by course instructors from two universities separated geographically on the East and West coast of Malaysia, online collaborative team teaching was deemed as a more practical approach. As underscored by Samerkanova et al. (2016), one of the most promising technologies that allow effective networking of teachers and students is the technology of cloud computing. The online collaborative team teaching employed a computer connected through the internet as a social networking tool and cloud-based or virtual technologies for teamwork for the instructors. Another reason for the implementation of the approach was studies found that online presence is important to course instructors' high-quality instruction, unites them socially and amplifies their cognitive presence (Law, Geng, and Li, 2019; Turk, Muftuoglu & Toraman, 2021). Additionally, the merits of creating an online presence include active interaction between instructors and learners, increased students' academic performance, quality feedback, cognitively activating tasks, clarity of instructions, and effective assessments (Gurley, 2018; Kreijns, Xu, & Weidlich, 2022; Rapanta, Botturi, Goodyear, Guàrdia, & Koole, 2020; Maolida & Sofarini, 2022). The approach to this teaching collaboration was not limited to the aspect of delivery but incorporated aspects of content development and assessments as well.

Indeed, team teaching collaboration is often advocated, yet its effects are less frequently investigated in higher education. Many studies have reported positive outcomes of teaching collaboration for school educators, including improved efficacy (Rooks, Scandlyn, Pelowich & Lor, 2022) and more positive attitudes toward teaching and student achievement (Murad, Sakhnin & Assadi, 2021; Reeves, Wik & Kyung, 2017; Avila, 2016). Little has been done, however, to investigate the relation of collaborative team teaching at the tertiary level with student achievement motivation, particularly online collaborative team teaching. Thus, this study aims to explore the link between online collaborative team teaching implemented by Malaysian university instructors in Financial Market and Banking Services course on student achievement motivation.

2.0 Literature Review

2.1 Collaborative Teaching

Team teaching is also known as co-teaching (Eriksson et al., 2020), collaborative teaching (Beninghoff, 2020) and teacher collaboration (Ronfeldt, McQueen & Grissom, 2015). Szempruch (2022) further states that co-teaching is collaborative planning in which two or more teachers come together to share work for the outcome of achieving what none could have done teaching solo. It is defined as two or more teachers working together in the planning, teaching, and assessment processes. Teachers will have the opportunity to pool their experience to aid the learning process (Lofthouse & Thomas, 2017) and improve teaching performance and quality (González & Skultety, 2018). The preceding definitions of collaborative teaching, along with practical definitions of Scribner-MacLean and Miller's (2011) conception of a single learning environment, 'or so-called online space, have assisted this study in justifying the online collaborative team-teaching concept.

This study describes online collaborative team teaching as two or more course instructors cooperating as a teaching team to share values in planning online teaching, organising online meetings, distributing learning materials online, and conducting online evaluations. Teaching online collaboratively is more useful than teaching online solo, according to Scribner-MacLean and Miller (2011). Furthermore, a study by Rooks, Scandlyn, Pelowich & Lor (2022) revealed that co-teaching contributed to increased student learning outcomes, bridged students' needs for pedagogical knowledge, facilitated learning efficiency (Moalida & Sofarini, 2022) and provided swift feedback on students' classroom work and assessment tasks, and boosted learner engagement in class (Lee, Song & Hong, 2019). Other merits of online co-teaching were improvement in academic accountability, student results and excellence in the classroom (Ronfeldt, McQueen & Grissom, 2015).

Despite the limitations of co-teaching, Barron, Friend, and Kohnke (2021) argue that co-instructors can improve their success by adding technology solutions into their shared classrooms. Through clear communication, technology can help co-instructors implement class instruction, improve possibilities for student engagement and participation, and ensure instructional consistency. As a result, online co-teaching is considered as having significant potential for academic success.

2.2 Achievement Motivation

Achievement motivation is a subjective and internal psychological drive that encourages people to pursue work they believe is valuable and pushes them to attain their objectives (Singh, 2011). The inner urge to achieve particular goals energises and guides conduct towards performance, and is thus recognised as a key factor of academic success (Wigfield et al., 2016). Students' motivation is highly context-specific, according to the discipline of social cognitive psychology (Pintrich et al., 1993).

Myriads of studies (Linnenbrink-Garcia et al., 2018; Muenks et al., 2018; Steinmayr et al., 2018) support the hypothesis that students' motivational beliefs including self-concept, task value, goal orientation and self-efficacy are significantly related to their academic achievement. In a study conducted by Anwar, Asari, Husniah & Asmara (2021), the findings indicate students' achievement motivation was significantly valid in predicting students' academic achievement beyond their intelligence which emphasises the necessity of a collaborative instructional approach. Nonetheless, there is scarce literature on the reciprocal effects of achievement motivation and higher education academic success in Malaysia.

2.3 The Study

The general objective of the study was to evaluate the opinions of students and achievement motivation about online collaborative team teaching applications which were conducted to improve students' grades and increase the pass rate in the Financial Market and Banking Services course.

3.0 Methodology

3.1 Instrumentation

A set of questionnaires was distributed to 100 students taking Financial Market and Banking Services course at UiTM Cawangan Kelantan and Universiti Teknikal Malaysia, Melaka. At the end of the co-teaching session in August 2022, students were asked to fill in the questionnaire to evaluate the co-teaching practices implemented. The questionnaire was adapted and adopted from Pasetto, Barreiros, Corrêa & Freudenheim (2021) to identify students' attitudes toward online collaborative team teaching in three aspects- skills, knowledge, and learning

process and students' perceptions of motivation to learn which include encouragement for achievement and their made efforts.

3.2 Participants

Respondents of the study were 100 university students at Universiti Teknologi MARA Cawangan Kelantan and Universiti Teknikal Malaysia Melaka. A purposive sampling technique was used by distributing questionnaires online using Google Forms to students who took Financial Market and Banking Services course. Demographic characteristics, including gender and age, are presented in Table 1.

Table 1: Profile of Participants

Gender	Frequency	%
Females	65	65
Males	35	35
Age		
21	26	26
22	74	74
University		
UiTM	55	55
UTeM	45	45

3.3 Collaborative Teaching Setting

The online collaborative team teaching was conducted by two collaborating instructors from the Faculty of Business and Management, Universiti Teknologi MARA Cawangan Kelantan and the Faculty of Technology Management and Technopreneurship, Universiti Teknikal Malaysia, Melaka. It was carried out in three phases-Plan, Do and See, from March to August 2022. In the Plan phase, the instructors discussed covered topics and implemented instructional strategies, learning procedures and assessments. At this phase, the instructors also deliberated issues, especially the shortcomings of online teaching and assessments, and then collaboratively made necessary preparation. The stage of Do was the synchronous online instructional implementation where the instructors alternately taught the class while the other instructor became observers, monitoring the instructional process, taking students' attendance and taking notes on students' progress in class. In the See phase, student assessment was carried out with the ultimate goal to measure the effectiveness of instructors' teaching by linking student performance to specific learning objectives. These phases comprised of ten student-instructor online meetings so that the instructors could maximize the opportunities to deliver lectures and discuss covered topics. After the online collaborative team-teaching phases were completed, students were asked to fill out a questionnaire to find out about their perceptions of the instructional approach and their motivation to achieve learning goals.

3.4 Data Analysis

All (n=100) participating students completed and returned their surveys which were then analysed descriptively. While analysing the student opinions on co-teaching applications, the frequency of agree and disagree expressions marked by students for the co-teaching duration were calculated and transformed into percentage values. Formal correlational analysis was not possible due to the descriptive ordinal nature of the collected data.

4.0 Findings and Discussion

The research results are presented in two headings. In the first section, the views of the students regarding co-teaching practices are given and their opinions of their motivation level after the implementation of the co-teaching are discussed in the second section.

4.1 Student Perception of Online Collaborative Team Teaching

Section A of the questionnaire elicits information on students' perceptions of how online collaborative team-teaching benefits their learning experiences. As shown in Table 2 below, students' overall responses to their learning experience were overwhelmingly positive.

Table 2: Student Perception of Collaborative Team Teaching

No.	Items	Agree (%)	Disagree (%)
1.	The lecturers employ simple learning techniques.	92.00	8.00
2.	The instructors explain the content sequentially in online collaborative team teaching and learning activities.	91.00	9.00
3.	The online collaborative team-teaching style forced me to concentrate more on listening to the material presented.	89.00	11.00
4.	The method utilised in the lesson is adjusted by the lecturers to fit the time, class settings, and topic content.	89	10.74
5.	Lecturers in online collaborative team teaching also stimulate topic matter that is applicable in everyday life.	91	9.00
6.	Lecturers supply broad information to students through online collaborative team teaching.	93	7.00
7.	Lecturers impart knowledge by connecting lectures to real-world situations.	90	10.00
8.	Lecturers always provide notes and assignments using shared cloud-based apps.	90	10.00
9.	I quickly learn the subject topic thanks to numerous techniques in online collaborative team instruction.	88	12.00
10.	Students are assigned summarising tasks by the professors.	87	13.00
11.	Lecturers employ an online collaborative team-teaching strategy that makes the class more entertaining and easier to understand.	94	6.00
12.	The online collaborative team-teaching style piqued my interest in learning.	92	8.00
13.	I am not bored by the online collaborative team-teaching style.	93	7.00
14.	Students are always welcome to ask questions of the instructors.	92	8.00
15.	The instructors consistently provide straightforward answers to student questions.	93	7.00

Most of the participants agreed the team-taught course was interesting (94.00%) and helped to enhance their understanding of the covered topics as it was easy to follow (92.00%). Their heightened understanding of the

course content was also attributed to instructors' academic assistance particularly providing clear answers to students' questions in class (93.00%) and having open two-way student-instructor communication (92.00%).

Students benefitted not only from the content knowledge provided by the collaborating instructors but also learned general knowledge in class (93.00%) that helped broaden their perspectives and enabled them to relate theoretical knowledge to real-life situations (90.00%). The research data also show students favoured team-taught classes (93.00%) which boosted their enthusiasm (92.00%) and learning motivation (91.00%).

The survey findings also indicate students appreciated the clear sequenced explanations given in class (91.00%) and they benefitted well from cloud computing technologies used for material sharing like notes and assignments (90.00%).

Results of this study support prior study findings which suggest online collaborative team-teaching improved teaching quality that benefit students in several aspects (Boland, Alkhalifa & Al-Mutairi, 2019; Heggart & Yoo, 2018; McNally, 2017). During the co-teaching practises, the students were perceived to be pleasant and academically prepared; they deemed the materials utilised by their instructors to be well-organized and helpful. The implementation of digital applications and cloud computing technologies into collaborative teaching made the course interesting to millennial students who are adept at the integration of various technologies and digital applications. Collaboration between the instructors facilitated students' learning efficiency and it provided comprehensive content teaching and improved instructor-student communication. This study found that students have a positive perception of co-teaching and express that they find it to be an effective and beneficial strategy.

Student Achievement Motivation

Section B of the survey looks into the link between online collaborative team teaching and student achievement motivation. Results show that co-teaching has positive relation to student achievement motivation as can be seen in Table 2 below.

Table 2: Student Achievement Motivation

No.	Items	Agree (%)	Disagree (%)
1.	I wish to get a high degree of proficiency in Financial Markets and Banking Services.	98.00	2.00
2	I want to be the top student in my class.	92.00	8.00
3	I can get the best grades in Financial Markets and Banking Services classes.	88.00	12.00
4	I am capable of exceeding my friends' achievements.	87.00	12.00
5	I was able to execute the lecturer's responsibilities as good as I could.	84.00	16.00
6	I believe I am capable of competing to achieve the best possible results in Financial Markets and Banking Services classes.	83.00	17.00
7	I always do projects without the assistance of friends.	80.00	20.00
8	My pride comes from getting good scores.	84.00	16.00
9	I appreciate it when others praise me on my accomplishments.	80.00	20.00
10	I am constantly eager to take on new learning	83.00	17.00

	challenges.		
11	I will complete my assigned task as efficiently as possible.	80.00	20.00
12	I shall be held accountable for all of my behaviour at university.	81.00	19.00
13	During the exam, I will work on the questions without the assistance of others.	82.00	18.00
14	I'm concerned about my current performance if I don't keep it up.	88.00	12.00
15	Failure to meet learning objectives will not dampen my determination to succeed.	80.00	20.00

Overall, online collaborative team teaching appears to be an effective instructional delivery option to increase student achievement motivation in learning Financial Market and Banking Services. Most of the students (98.00%) were highly motivated to get high scores and the best placement in the course. Although many of the students (88.00%) were concerned about their academic performance, a large number of the students (88.00%) were confident to get the highest possible score through the teaching collaboration approach and that they could perform better in the assignments and assessments (87.00%).

The findings of this study indicated that students thought that co-teaching practices had a positive influence on their achievement motivation which is in parallel with the findings of previous studies (Avwiri, 2020; Ghazouli, 2017). It could be said that the co-teaching created a sense of support, community and collaboration, which also positively enhanced the students' achievement motivation. It was also revealed that the students affirmed that they were willing to be more competitive, had high expectations to do well in the course and had positive self-evaluation due to the implementation of the co-teaching method.

5.0 Conclusion

The survey results concerning the implemented online team-teaching collaboration reveal that students highly favoured the instructional approach and there was a positive relation between the co-teaching methods and achievement motivation. Students appeared to enjoy and benefit from the guest instructor and instructional methods. They appreciated the instructor's effort to bring each guest instructor into the class and gained a window into another instructor's teaching style and experience that helped broaden their perspectives. The academic and social milieu in the classroom influenced participating students' motivation to improve their grades in the course.

One of the main tenets of collaborative team teaching is instructors can share their experiences and encourage dialogue amongst the instructors that lead to reflection, and based on the outcome of the study, it is believed that fostering co-teaching at higher education institutions could lead to higher student achievement. Nonetheless, with restricted data sources and research design, further research is required, particularly in terms of increasing the number of respondents and experimenting with alternative collaborative teaching formats, as highlighted by Keely, Brown, and Knapp (2017) and Haag, Pickett, Trujillo, and Andrews (2023).

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