

Enhancing Student Learning Through International Academic Collaboration: Evidence from A Cross-Border Teaching Programme

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ABSTRACT

This study focuses on how international academic collaboration affects students' experiences as they learn in a brief (short-term) cross-border teaching program. The methodology was a convergent mixed-methods approach that used both quantitative surveys and qualitative open-ended comments from 47 Indonesian students who had attended a collaborative teaching session led by Malaysian instructors. Student participants responded positively to the program, giving it high marks for clarity of instruction, increased knowledge acquisition, instructor engagement, relevant content, and overall satisfaction. The regression model explained 74.2% of the variance in student satisfaction (adjusted $R^2 = 0.704$), with teaching materials and pace of delivery emerging as significant predictors. This indicates that the use of well-organised, clearly defined educational resources, as well as an instructional pace that is reasonable for learners to follow, will be most beneficial for enhancing student satisfaction in cross-border teaching situations. The qualitative data also indicated that students value having their questions answered through clear explanations, engaging in interactive dialogue in class, and exposure to international academia. Challenges associated with this experience included language differences, a rapid instructional pace, and insufficient time to present the material. This research adds to the existing body of literature on experiential learning, quality of instruction and "internationalisation at home" by demonstrating that, when properly adapted, short-term cross-border teaching programs can lead to meaningful experiences for students.

Keywords: International academic collaboration, cross-border teaching, student satisfaction, accounting education, experiential learning

INTRODUCTION

Internationalisation is becoming a key focus in higher education because many universities want to prepare students for success in today's interconnected world. For decades, traditional internationalisation methods (e.g., student mobility, exchange programs, joint degree programs) have enabled students to experience and learn about different cultures, ways of life, and academic practices. Unfortunately, some students do not have the financial assistance or institutional support to let them participate in these internationalisation programmes. In response to this issue, many institutions are beginning to explore new, more accessible forms of internationalisation. These include internationalisation-at-home; invited lectures; joint teaching; virtual academic collaborations; and short-term cross-border teaching activities.

Academic collaboration among institutions internationally will provide a means for various universities to share best-practice teaching methodologies, discipline-specific knowledge, intercultural learning experiences and other relevant expertise. Collaborative teaching can provide students with the opportunity to gain exposure to diverse perspectives, both academically and culturally, while remaining at their own home university. Cross-border teaching can be particularly beneficial in professional areas like accounting, where students not only receive a technical

foundation in accounting but also gain awareness of variations in accounting conceptualisations/practices/professional expectations across national and institutional contexts. Therefore, cross-border teaching can create rich and engaging learning experiences for students by fostering comparative thinking, increasing classroom participation, and expanding the students' comprehension of the subject matter.

Although there is increasing acceptance of collaborative teaching among institutions across borders, studies examining the effectiveness of short-term cross-border teaching have been largely anecdotal or limited. A large majority of prior studies have primarily examined longer-term international student mobility, institutional partnership agreements, and broader internationalisation strategy frameworks, rather than collaborative teaching models utilising a short-term delivery framework and delivering content to students at their home institution. This presents a need for additional research into how students view this programme, what components of teaching quality affect their overall satisfaction with the programme, and what challenges they encounter when participating in cross-border educational programs.

This study examines this void by assessing Indonesian students' perceptions of learning in an international collaborative teaching program facilitated by Malaysian faculty members. Specifically, the study assesses Indonesian students' perceptions of a program that incorporated short-term teaching modules focused on accounting-related subjects. Students received instruction based upon differing pedagogical approaches used by Malaysian lecturers. Additionally, students were provided with various academic and cultural perspectives relative to Indonesia. Overall, this study is one of the few empirical examinations related to the relationship between teaching quality and learning effectiveness or student satisfaction in short-term cross-border teaching.

Specifically, this study aims to achieve the following objectives:

To evaluate the effectiveness of international academic collaboration in enhancing students' learning experiences.

To identify the key teaching-related factors that influence student satisfaction in a cross-border teaching environment.

To explore the challenges faced by students during international collaborative teaching sessions.

This study has contributed to the body of knowledge in three ways. First, it extended the discussion of internationalisation-at-home using evidence from a short-term cross-border teaching program. Second, this research identified how the five key teaching qualities (teaching clarity, lecturer engagement, pace of delivery, teaching materials, and learning environment) shape student experience and satisfaction. Third, the findings offer practical guidance for higher education institutions that are interested in developing more accessible, adaptable, and sustainable international academic collaborations.

LITERATURE REVIEW

International Academic Collaboration in Higher Education

Universities are increasingly establishing international academic collaborations as part of broader goals to improve teaching, student learning, faculty/academic research, and university improvement. International collaboration among institutions of higher education offers an opportunity for educators, students, and institutions to exchange knowledge, pedagogical methods, and subject matter areas around the world. Collaborative programs may take many forms, including jointly developed curricula, common or coordinated teaching methodologies, guest lecturer series, collaborative academic programs/projects, and transnational teaching programs. By engaging in these collaborations, institutions can leverage each other's strengths while exposing students to diverse academic and cultural viewpoints.

International collaboration among institutions of higher education is increasing, as evidenced by the growing number of collaborative academic programs. The National University of Singapore increased the number of joint degree programs from 12 in 2005 to 73 in 2015, indicating the overall growth of international collaboration in higher education (Kayyali, 2025; Nguyen et al., 2025; Natarajan, 2012). This indicates that international collaboration in academia is becoming an essential mechanism for creating institutional networks, improving academic quality, and facilitating global engagement.

Furthermore, international academic collaboration facilitates the realisation of the United Nations Sustainable Development Goals (SDGs) by fostering inclusive and meaningful knowledge exchange among countries. Collaboration enables knowledge sharing to occur reciprocally rather than unidirectionally through the exchange of expertise, resources, and experiences (Brandt et al., 2025; Dantic, 2024). Once institutions engage in cross-border collaboration, they can contribute to the creation of global academic networks and long-term educational development (Pfothenauer et al., 2013).

Finally, digital technologies have provided additional avenues for international collaboration through online meetings, virtual lectures, academic discussions, and cross-border learning activities. Digital platforms provide universities with mechanisms to continue academic interactions even though they are geographically distant. While face-to-face interactions are critical for building trust, strengthening professional relationships, and increasing intercultural awareness, international collaboration may benefit from combining the accessibility afforded by digital platforms with the relational value associated with face-to-face interactions (Blackmore et al., 2012; Spencer-Oatey, 2013).

While there are numerous benefits to international academic collaborations, implementing them can be challenging. Cultural differences, institutional policies, teaching approaches, language proficiency levels and funding capacities can all impact the success and sustainability of collaborative programs. Thus, effective international collaboration requires committed leadership, open and transparent communication, and flexible models that integrate both face-to-face engagement and digital platforms. Each of these will help to facilitate the sustainability and ongoing relevance of international academic collaboration over time (Jakubakynov et al., 2024; Kikutadze & Lekishvili, 2024; Msomphora, 2025; Hans & Hans, 2026).

Experiential Learning in Cross-Border Education

Transformational Learning Theory supports experiential learning and international experiences. Transformational learning is characterised by a shift from previous beliefs, attitudes or behaviours to new ones (Mezirow, 1997), which occurs when individuals engage in experiences or interactions that allow them to see the world differently than before. International experiences are likely to be transformative due to cultural differences (Devereux & Glenn, 2022).

Experiential learning is especially effective in developing the personal and professional competences required for success in today's globalized educational and work environment (Zhuang, 2023; Mattick et al., 2021). The most critical of these are resilience, adaptability and confidence (Kidd, 2016), all of which can be developed through experiential learning (Mellors-Bourne et al., 2018). While service-learning, as a form of experiential learning, has proven beneficial in enhancing both students' professional competences and their intercultural understanding through community-based involvement (Martinez-Mier et al., 2011), there are limitations related to virtual platforms. For example, simply using a virtual platform does not guarantee active student participation and therefore limits the effectiveness of the experience. To address this limitation, educators should consider utilising blended learning models and/or integrating teaching methods into their curricula. Using these models will allow educators to increase access to experiential learning while maintaining meaningful and transformational learning outcomes (Cruz & Whatley, 2025; Chavan, 2009).

Teaching Quality and Student Satisfaction

Teaching quality is a major factor for overall student satisfaction in higher education. Effective teaching requires lecturers to provide subject-matter information but also to ensure the way they present material, how they teach and what learners do during classes are effective in achieving learning objectives. Therefore, these components are important to both learner satisfaction and learner success (Khan & Ghosh, 2016; Smimou & Dahl, 2012; Lukman et al., 2020; Kaur et al., 2022).

Cross-Border Teaching

When teaching across borders, the importance of teaching quality is magnified by differences in teaching methods, accents, examples and academic expectations that students will encounter. For example, clear explanations of technical subjects help students better understand complex ideas, whereas interactive learning helps to increase learner involvement and lower the barriers to learning. In addition to classroom teaching, other important areas of the learning experience are lecturer motivation, institutional support and the learning environment.

Student Evaluation of Teaching Quality

Students' perception and evaluation of teaching quality is affected by several internal variables, including motivation, confidence and the individual's state of mind when approaching learning. Motivation and confidence are linked to how positive or negative students perceive their educational experience (Olorategui Alcalde et al., 2025; Harrison et al., 2023; Zhang et al., 2025). If students are motivated, confident, and well-prepared psychologically, they have a greater likelihood of responding actively in the learning process and reporting higher levels of satisfaction.

Whilst many studies relate student satisfaction to teacher quality, it would be incorrect to view them as being directly interchangeable. The most appropriate method for assessing teaching quality is through a comprehensive framework that includes multi-dimensional evaluations, ongoing feedback mechanisms and a clear method for evaluating all aspects of teaching and learning (Stegeny, 2013; Johannsen & Meyer, 2023; Artino et al., 2025). This study examines the relationship between student satisfaction and six variables: clarity of explanation, engagement of the lecturer, pacing of lessons delivered, relevance of teaching materials, characteristics of the learning environment and effectiveness of the learning process.

Student Engagement and Learning Effectiveness

Student engagement is defined by three primary dimensions, including behavioural, emotional, and cognitive. Behaviorally, it encompasses all forms of active participation in the educational process. Emotionally, it represents the degree of enthusiasm and interest students express toward the course material. Cognitively, it is represented by how much mental effort students expend on an attempt to understand and implement the information learned. Each of these dimensions is important since each links students' learning motivation to the quality of the educational outcome (Bedi, 2023; Lei et al., 2024; Doo & Kim, 2024).

When motivated students are engaged, enthusiastic, and mentally focused on the learning activity, they will derive greater benefits from the educational experience. Nonetheless, student engagement, although essential for achieving positive learning results, is insufficient to ensure them. Effective instructional techniques, relevant learning materials, and a conducive classroom environment also need to be present. Research suggests that effective learning methods are potentially even more influential factors in determining academic success than student engagement (Zhiqiao et al., 2025).

Newer research indicates that innovative instruction models, e.g. gamification and competitive polling, have demonstrated to increase student engagement as well as provide additional opportunity for deeper learning. Such instructional models facilitate increased class-wide interaction and stimulate student motivation throughout the

educational experience (Shahbazi & Villa López, 2024; Nguyen-Viet & Nguyen-Viet, 2023; Nie & Tang, 2025). Cross-border education environments represent potential application sites for such models. Additionally, student-teacher rapport and sensitivity to cultural differences inherent within international settings enhance the ability of instructors to address student concerns and mitigate the likelihood of either disengaging or withdrawing from the educational program (Szabó et al., 2024; Zhu et al., 2024; Deng, 2021).

Learning effectiveness was defined in this study as the extent to which students perceived that the teaching session enhanced their comprehension of the subject matter and provided a favourable contribution to their overall educational experience.

Challenges in Cross-Border Teaching

While there are many potential advantages associated with the practice of cross-border education, including improved quality, increased access, and greater flexibility for students, implementing such programs may be subject to several limitations. The diversity in cultures that students bring into the learning environment could enhance the learning process as long as teachers can manage the variety of communication styles, classroom expectations, and learning behaviours adequately. If this cannot occur appropriately, it will likely inhibit student participation, cause discomfort, and limit students' ability to comprehend the material presented by the teacher. Consequently, instructors should use culturally responsive pedagogies that recognise the backgrounds, experiences, and learning needs of all students (Hutchison & Bailey, 2006; Tingoy & Gulluoglu, 2012).

A second area of difficulty associated with cross-border instruction involves differences in language and communication. Language proficiency, accent, terminology, and explanation pace, among others, will impact students' ability to comprehend the instructional content.

Technical areas of study may be more impacted due to the specialised nature of discipline-specific terms used in those areas. As technology continues to evolve and allow for more opportunities for distance/online/hybrid delivery of courses, clear communication and meaningful interactions with faculty/students become increasingly important to ensure that both instructor and student achieve their desired goals (Baizhanova et al., 2022). In addition to addressing differences in language and culture, instructors must also adapt to varying institutional systems, differing student learning preferences and varying levels of technology accessibility in each country. What works in one system does not necessarily translate to success in another system. Teachers must be willing to adjust their own teaching methodology to accommodate the unique academic/cultural/technological requirements of the host institution when engaged in cross-border teaching (Owusu-Agyeman & Amoakohene, 2020; Lu et al., 2013; Tippins et al., 2006).

Finally, short term cross-border teaching is time sensitive. Due to the limited timeframe for these types of programs, teachers may not have adequate time to establish relationships with students, evaluate students' prior knowledge on course material, or provide detailed explanations of complex course material. Thus, clarity of instruction, proper pacing, and organization of course materials are essential to providing an optimal learning experience for students.

Hypothesis Development

Based on prior research, it is also argued that there will be inter-relationships among student satisfaction, teaching quality and learning effectiveness with respect to cross-border teaching. The five aspects of teaching quality are: (i) teaching clarity; (ii) lecturer engagement; (iii) pacing of delivery; (iv) suitability and relevance of teaching materials; and (v) quality of the learning environment. Each of these aspects can contribute to influencing the degree to which students report being satisfied with their cross-border teaching experiences as well as whether they perceive that they have effectively learned from them.

Teaching clarity is an essential aspect of international collaborative cross-border teaching as students are more likely to be satisfied with their educational experience if lecturers provide adequate explanations of course content

objectives, course concepts and supporting examples in a way that is easy for all students to follow. As noted previously, the use of foreign languages or accents and cultural/educational backgrounds of both teachers and students can create challenges for students' comprehension in cross-border education. Hence, the following hypothesis is developed:

H1: Teaching clarity positively influences student satisfaction.

Lecturer engagement may also have an effect on student satisfaction. If a lecturer encourages students to participate, interacts with them, and creates a welcoming atmosphere in a classroom, then it is possible for students to become engaged as well. Thus, we will propose the following hypothesis:

H2: Lecturer engagement positively influences student satisfaction.

There is reason to believe that the rate at which material is delivered will affect student satisfaction. In particular, students need more time to fully comprehend new ideas and concepts, especially in short-term courses. The appropriate delivery rate will allow students to absorb the material presented in each explanation, reflect on what was said, and participate more effectively. So, we will offer the following hypothesis:

H3: Pace of delivery positively influences student satisfaction.

We expect that teaching materials will also affect student satisfaction. Good-quality materials will provide a better opportunity for students to learn the lesson content and review the subject matter taught. This is especially true when the course is very short. Therefore, we will propose the following hypothesis:

H4: Teaching materials positively influence student satisfaction.

The learning environment could affect student satisfaction by creating an environment for comfort, participation, and general perceptions of a good learning session. The supportiveness of a learning environment would enable students to take part more readily in cross border learning. We will propose the following hypothesis:

H5: Learning environment positively influences student satisfaction.

It is reasonable to assume that the learning effectiveness will have an impact on student satisfaction. There is reason to believe that if a student perceives the teaching session had been effective in improving his/her understanding and increasing her/his knowledge, and positively affecting her/his experiences of learning, then he/she will be satisfied. We will propose the following hypothesis:

H6: Learning effectiveness positively influences student satisfaction.

Conceptual Framework

This study develops a theoretical model that connects quality of instruction (teaching) with effectiveness of learning (learning) and student satisfaction (satisfaction) within the context of international collaborations. The model includes five dimensions such as clarity of delivery, active involvement of lecturers, pace of delivery, usefulness of the material for learning, and supportiveness of the environment. These factors can influence how students experience cross-border teaching. If the delivery was clear, the lecturers were involved with the students, the pacing of delivery was suitable for learning, if the learning material was useful, and if the learning environment was supportive, then students will be positive about the instructional session.

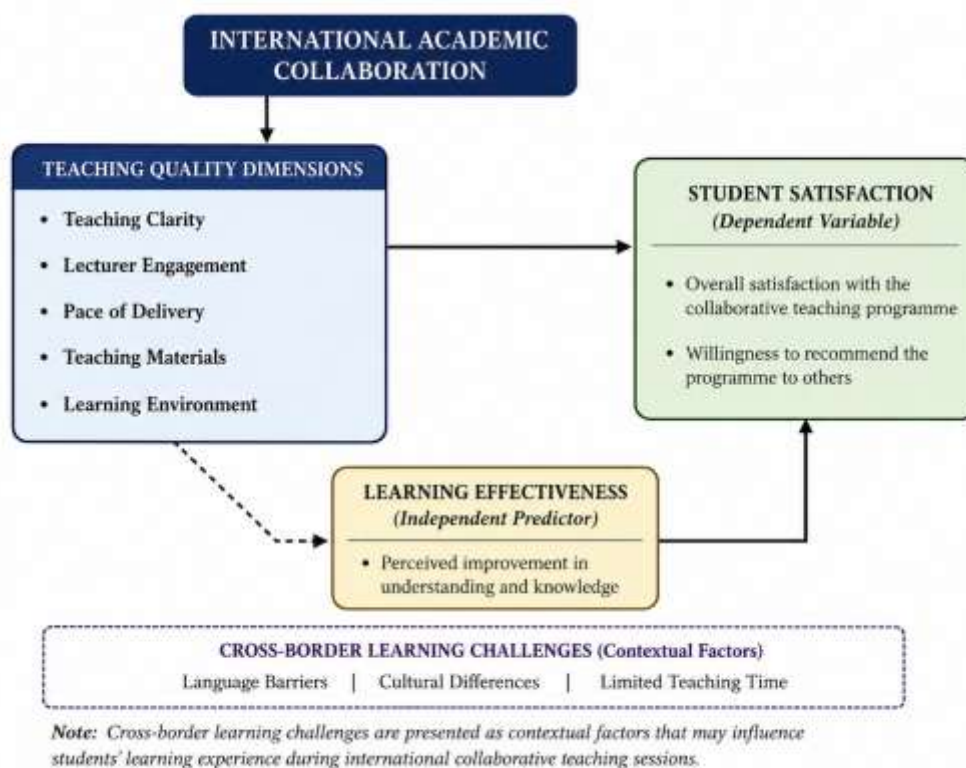
Perceived effectiveness of learning is added as a separate factor for predicting student satisfaction. Perceived effectiveness of learning is defined as students' perceptions that they have gained a better understanding of course content through participating in cross-border teaching. Therefore, it is hypothesised that when students feel like the

program increased their knowledge and understanding, these same students would provide a high level of satisfaction with the collaborative teaching experience.

Satisfaction of students is the outcome variable of this model. Satisfaction of students is defined as the overall evaluation by students of the cross-border teaching program. The evaluation will include satisfaction with the learning experience and the likelihood that students would suggest or recommend a similar programme to others.

The framework also considers the contextual challenges that may affect cross-border learning, including language barriers, cultural differences, and limited teaching time. These challenges may influence how students receive instructional content, interact during learning sessions, and evaluate their experience of international academic collaboration. The relationship between the main constructs in this study is shown in Figure 1.

Figure 1: Conceptual Framework



METHODOLOGY

Research Design and Context

This research employed a convergent mixed-methods approach by integrating quantitative survey results from students with qualitative comments (open-ended) on their learning experiences in an international collaborative teaching program. A convergent mixed-methods design was deemed most appropriate, where both quantitative and qualitative data were collected from the same subjects post-teaching session. The quantitative results measured students' perceptions of the quality of instruction, effectiveness of learning, and student satisfaction. The qualitative results supplied additional insight into students' experiences, positives, and negatives regarding the program as well as problems experienced in the delivery of the cross-border teaching sessions.

The research was conducted within a short-term international academic partnership involving Malaysian lecturers and students at an Indonesian University. In this program, the Malaysian lecturers taught specific courses related to accounting to the Indonesian students. The courses taught included Financial Accounting, Taxation, Standard Costing and Shariah Auditing. The choice of these courses was made due to the fact that they are all technically based and have a need for clear explanations, structured course materials and proper pacing in terms of instruction. Consequently, the program represented a good opportunity for studying how the quality of teaching affects students' learning experiences and degree of satisfaction in an international collaborative teaching setting

Sample and Data Collection Procedure

Respondents were Indonesian students who took part in an international collaborative teaching program. A purposeful sampling strategy was selected since the focus of the study was students who directly attended the cross-border teaching sessions. Of the 47 students sampled from the program (they received the electronic questionnaire after they finished the program), all completed and returned it.

A structured electronic questionnaire was administered immediately at the end of each teaching session to collect data from students. This approach helped to prevent recall error by collecting data when the students' learning experiences were most fresh and before there could be any distortion due to time. Student participation in the survey was voluntary, and the students were advised that their answers would be used as a means of supporting academic research. Students did not have to identify themselves by providing personally identifiable information in order to help preserve their privacy and anonymity.

The questionnaire was divided into three major components. The first component contained demographic information regarding the participants. The second portion of the questionnaire asked students about their perceptions of teaching quality, learning effectiveness, and student satisfaction using a 5-point Likert-type scale with 1 indicating "strongly disagreed" and 5 representing "strongly agreed". The last segment of the questionnaire contained open-ended questions, which gave students an opportunity to comment on the positive aspects, negative aspects, obstacles encountered and overall learning experience in relation to the international collaborative teaching program.

Measurement of Variables

The constructs utilised within this research were developed through adaptations of existing studies in the fields of education and teaching quality. Five different dimensions of teaching quality were established (teaching clarity; lecturer engagement; pace of delivery; teaching materials; and learning environment). Teaching clarity is defined as how well the instructor explains the purpose of the lesson, the concept or example, and it is related to student outcomes. Lecturer engagement involves the instructor's interaction with students, encouraging students' participation and creating an environment where the lecturer makes the learning process interesting. The pace of delivery is determined by whether the instructor delivers content in a way the students can both follow and understand. Teaching materials are defined as the value, relevance, and organisation of the instructional resources available to the students. Learning Environment is defined as the degree to which the classroom has been designed to foster a supportive, comfortable, and productive learning experience. Student Perception of Effectiveness is defined as the extent to which the instructor's performance was perceived to improve students' comprehension of the subject matter. Student Satisfaction is defined as the total level of students' satisfaction with the program and their likelihood of recommending similar team-taught programs. All questions were assessed utilising a 5-point Likert scale. Higher values indicate greater acceptance on all questionnaires and a better view of each session.

Data Analysis Techniques

The statistical methods used to analyse the data included descriptive statistics (mean & SD), reliability analysis (Cronbach's Alpha) and multiple regression analysis with the inclusion of the assumption assessments before running the regression. Descriptive statistics provided a summary of what students perceived as positive or negative

about their experience in each of the four teaching sessions. Reliability analysis provided an assessment of whether all the measurement items that measured the same concept had good internal consistency. A Pearson Correlation Analysis was conducted to determine if there was a relationship between students' perception of the four teaching quality dimensions and both student satisfaction and learning effectiveness.

In addition to determining if there were significant correlations among these three concepts, Multiple Regression Analysis was also conducted to determine which teaching quality dimension(s) impacted student satisfaction. As part of this process, it is important to establish whether the assumptions of normality, linearity and no multicollinearity are met by conducting several tests (e.g. skewness and kurtosis; scatter plot). Establishing the appropriateness of the regression model will help provide clarity on how the independent variable(s) relate to student satisfaction.

Qualitative data collected through two open-ended questions were analysed using Thematic Analysis. In order to complete this type of analysis, the researcher read each response at least twice, identified meaningful patterns in the responses, coded responses based on common themes, developed categories/labels for the code themes, grouped the code themes together into broader themes, and finally determined that each theme represented a distinct aspect of the research question. Finally, the qualitative results supported and further clarified the results found in the quantitative portion of this study.

RESULTS AND DISCUSSION

Respondent Profile

The respondent profile shows that the majority of students who participated in the study were female. Female students represented 80.9% of the sample, while male students represented 17.0%. One respondent selected both male and female, representing 2.1% of the sample. In terms of age, 46.8% of the respondents were below 20 years old, 44.7% were between 20 and 22 years old, and 8.5% were above 22 years old. Most respondents were diploma students, representing 72.3% of the sample, followed by bachelor's degree students at 21.3%, and students from other levels of study at 6.4%. The respondent profile indicates that the sample mainly consisted of young undergraduate-level students, which is appropriate for examining students' immediate learning experiences in a cross-border teaching programme.

Table 1: Respondent Profile

Demographic item	Category	Frequency	Percentage
Gender	Female	38	80.9%
	Male	8	17.0%
	Male; Female	1	2.1%
Age	Below 20	22	46.8%
	20–22	21	44.7%
	Above 22	4	8.5%
Level of study	Diploma	34	72.3%

	Bachelor's degree	10	21.3%
	Others	3	6.4%

Descriptive Statistics

The descriptive analysis indicates that students generally had positive perceptions of the collaborative teaching sessions. Across all items, the percentage of positive responses, consisting of “agree” and “strongly agree”, exceeded 87%. This suggests that students perceived the sessions as clear, useful, engaging, and relevant to their learning experience. As shown in Table 2, the highest mean scores were recorded for “Lecture objectives were clear” and “Improved understanding”, both with a mean score of 4.47. This indicates that students were able to understand the purpose of the teaching sessions and perceived that the programme helped improve their understanding of the subject matter. The item “The lecturer explained clearly” also recorded a high mean score of 4.45, suggesting that clarity of explanation was one of the strengths of the cross-border teaching sessions. The lowest mean score was recorded for “Pace was appropriate” with a mean score of 4.15. Although this score remains high, it suggests that the pace of delivery may require further attention, especially in short-term cross-border teaching where students may need more time to understand technical accounting content.

Table 2: Descriptive Statistics

Variable	Mean	Std. Deviation
Lecture objectives were clear	4.47	0.55
Improved understanding	4.47	0.58
The lecturer explained clearly	4.45	0.57
The lecturer was engaging	4.43	0.59
Content was relevant	4.38	0.60
Overall satisfaction	4.34	0.61
Recommend to others	4.32	0.64
Materials were useful	4.30	0.63
Learning environment	4.28	0.65
Pace was appropriate	4.15	0.72

Note: Measured on a 5-point Likert Scale.

Reliability and Measurement Validity

Reliability analysis was conducted to assess the internal consistency of the measurement items. The overall scale recorded a Cronbach's alpha value of 0.947, indicating excellent internal consistency. This suggests that the items used in the questionnaire were reliable in measuring students' perceptions of the collaborative teaching sessions.

The sub-constructs also demonstrated strong reliability. The Teaching Quality construct recorded a Cronbach's alpha value of 0.931, while the Student Satisfaction construct recorded a Cronbach's alpha value of 0.907. These values exceed the commonly accepted threshold of 0.70, indicating satisfactory internal consistency for the constructs.

Correlation Analysis

Correlation analysis was conducted to examine the relationship between student satisfaction and the teaching-related variables. The results showed significant positive relationships between student satisfaction and all dimensions of teaching quality. This indicates that higher ratings of teaching-related factors were associated with higher levels of student satisfaction.

The strongest correlation was identified for Teaching Materials, with a correlation value of $r = 0.816$. This was followed by Teaching Clarity, with $r = 0.774$, and Pace of Delivery, with $r = 0.758$. These findings suggest that students' satisfaction was closely associated with the quality of teaching materials, the clarity of explanations, and the appropriateness of delivery pace. In the context of cross-border teaching, these factors are particularly important because students may need additional instructional support to understand technical content delivered by lecturers from another country.

Regression Analysis

Multiple regression analysis was conducted to assess how well the six teaching-related variables jointly predicted student satisfaction. The model explained 74.2% of the observed variance in student satisfaction ($R^2 = 0.742$; adjusted $R^2 = 0.704$) and was statistically significant, $F(6, 40) = 19.19$, $p < 0.001$. The adjusted R^2 indicates that approximately 70.4% of the variance remained explained after accounting for the number of predictors. This is a substantial model fit, but it should not be interpreted as explaining all variation or as evidence of causality. Given the modest sample ($n = 47$) relative to six predictors and the strong correlations among several teaching-quality measures, the estimate may be sample-specific and should be validated in a larger independent sample.

Table 3: Multiple Regression Results

Variable	Unstandardized B	Std. Error	Standardized Beta	t-value	p-value
Materials	0.456	0.138	0.412	3.30	0.002*
Pace	0.332	0.141	0.298	2.36	0.026*
Clarity	0.112	0.145	0.098	0.77	0.445

Environment	0.095	0.127	0.081	0.75	0.458
Engagement	0.084	0.132	0.072	0.64	0.523
Learning Effectiveness	0.067	0.118	0.058	0.57	0.571

Note: Dependent Variable: Student Satisfaction. * $p < 0.05$.

The regression results show that Teaching Materials and Pace of Delivery were the only significant predictors of student satisfaction. Teaching Materials recorded the strongest effect, with $\beta = 0.412$ and $p = 0.002$. This indicates that students were more satisfied when the materials used in the teaching sessions were useful, relevant, and well structured. Pace of Delivery was also a significant predictor, with $\beta = 0.298$ and $p = 0.026$. This suggests that students' satisfaction increased when the teaching pace was appropriate and manageable.

Although Teaching Clarity, Learning Environment, Lecturer Engagement, and Learning Effectiveness were positively related to student satisfaction, they were not statistically significant predictors in the regression model. This may be due to overlap among the teaching quality variables. For example, students who rated teaching materials highly may also have rated clarity, engagement, and learning effectiveness positively. As a result, the unique contribution of these variables became weaker when all predictors were entered into the same regression model.

Overall, the findings suggest that practical teaching factors, particularly the quality of teaching materials and the appropriateness of delivery pace, played a stronger role in shaping student satisfaction than other teaching-related factors. In short-term cross-border teaching, this finding is important because students may rely heavily on structured materials and manageable delivery to understand technical content within a limited time.

Based on the regression results, only H3 and H4 were supported. Pace of delivery and teaching materials were found to significantly influence student satisfaction, while teaching clarity, lecturer engagement, learning environment, and learning effectiveness were not significant predictors in the regression model.

Table 4: Hypothesis Testing Summary

Hypothesis	Relationship	Result
H1	Teaching clarity → Student satisfaction	Not supported
H2	Lecturer engagement → Student satisfaction	Not supported
H3	Pace of delivery → Student satisfaction	Supported
H4	Teaching materials → Student satisfaction	Supported
H5	Learning environment → Student satisfaction	Not supported
H6	Learning effectiveness → Student satisfaction	Not supported

Qualitative Findings and Thematic Discussion

The qualitative data supports and extends the quantitative results. Four major thematic areas emerged from the open-ended responses provided by students: clear presentation and explanation, engaging learning environment, value of international exposure, and challenges experienced in cross-border learning.

The first area of focus refers to clear presentation and explanation. Students appreciated lectures that explained ideas clearly, used well-structured examples, and utilised methods of instruction to facilitate better understanding of the learning content. This finding aligns with the descriptive analysis completed in this study, as students assigned very high ratings for clear lecture objectives and for the clarity of the lecturer's explanation. The second area of focus was about creating a fun and exciting learning environment. Students stated that classroom engagement, humour, and rewards created excitement in sessions. A favourable learning climate was created, allowing for greater participation from students within the session.

The third area of focus relates to the value of internationalisation. Students expressed appreciation for the ability to achieve internationalisation at home due to the collaborative teaching program. Students were able to appreciate learning from Malaysian professors while comparing accounting-related issues and perspectives of Malaysia versus Indonesia. This experience allowed for a much larger scope of vision and awareness of cross-border educational and professional environments.

The fourth area of focus concerned challenges associated with cross-border learning. Students mentioned fast-paced delivery, language differences, and short lecture times, all of which may restrict detailed explanation and comprehension of technical subjects. This finding complements, rather than contradicts, the regression result. The quantitative item measured whether the pace was appropriate: students who rated the pace as more manageable tended to report greater satisfaction. The qualitative comments identify why some students gave less favourable pace ratings—specifically, because the delivery felt too fast within the limited contact time. Thus, pace is both an important determinant of satisfaction and an aspect of delivery that requires improvement for some learners.

INTEGRATED DISCUSSION

Student Satisfaction with Short-Term Cross-Border Teaching and Delivery Models. The results show that practical elements of instruction, particularly teaching materials and pace of delivery, make statistically significant unique contributions to student satisfaction when the other predictors are held constant. Together, all six predictors explained 74.2% of the observed variance in satisfaction (adjusted $R^2 = 0.704$); this should not be described as explaining all variation. The finding indicates that structured learning support and a manageable instructional pace help students follow short-term international collaborative teaching sessions.

This finding has implications for future research into cross-border teaching due to the fact that much of the work conducted under this rubric occurs in environments where there are likely to be language barriers, variations in culture, and/or limited contact hours. Therefore, it is reasonable to conclude that if cross border students need clearer and more structured teaching materials, along with a more controlled instructional pace, to successfully complete an international collaborative teaching session. As such, while instructor engagement, instructor clarity, the learning environment and the extent to which learning is effective all continue to be critical considerations, these variables appear to be less evident within the regression model when both teaching materials and instructional pacing are taken into account.

Both theoretically and practically, the results indicate that experiential learning continues to be relevant in cross-border education. International collaborative teaching sessions present students with opportunities to experience different academic perspectives, learn about best practices relative to their own academic context, and gain an understanding of international learning processes without having to physically relocate themselves. However, how successful a student's experiential learning process is, ultimately depends upon the degree to which the instructional session was developed/delivered.

Practically speaking, the results of this research highlight the importance of developing and utilising teaching materials that are easily understood by students with varying degrees of education and cultural background. Additionally, instructors engaged in short-term cross-border teaching need to pay careful attention to managing the instructional pace of deliveries (especially if they are instructing in technical fields) by minimising complex explanations, incorporating applicable examples, creating sufficient time for questions, and distributing materials that students can review after the instructional session.

Finally, the results of this research support the idea of "internationalisation at home" by demonstrating that students can obtain meaningful international experiences through participation in short-term collaborative teaching programs. Therefore, collaborative international academic programs could offer a more inclusive and lower-cost alternative to traditional long-term mobility programs. In addition, well-planned collaborative international academic programs can help institutions meet their broader goals related to quality education and sustainable partnership development.

Contributions of The Study

This study contributes to the literature and practice of international academic collaboration by providing empirical evidence on students' learning experiences in a short-term cross-border teaching programme. The findings show that teaching quality plays an important role in shaping students' satisfaction, particularly through the use of effective teaching materials and an appropriate pace of delivery. These two factors emerged as significant predictors of student satisfaction, suggesting that students in cross-border learning contexts benefit from structured instructional support and manageable delivery.

Theoretical Contributions

This research theoretically expands discussions around three areas: student engagement, experiential education, and internationalisation at home by integrating them into the theoretical framework of short-term cross-border teaching. The data supports that while there may be some limitations (time) associated with participating in an international collaborative teaching program, students are still provided with valuable academic experiences. They will be exposed to new academic perspectives, they will be able to observe/compare how different countries teach the same subjects, and as such, increase their overall awareness and understanding of the subject area(s).

Additionally, the research adds to the body of knowledge surrounding the issue of teacher quality by providing empirical evidence that demonstrates that factors other than lecturer engagement and classroom interaction affect students' satisfaction with their educational experience in cross-border teaching programs. Specifically, two structural elements of teaching delivery (teaching materials and delivery pace) emerged as being significant predictors of student satisfaction. As a result, effective cross-border teaching will require both an engaging instructor and appropriately designed learning support.

Practical Contributions

A practical contribution of this research lies within its usefulness to lecturers or program managers who are engaged in international collaborative teaching. In a practical sense, the results of this research suggest that lecturers need to think critically about the development of instructional material and the pacing of lessons. Specifically, lecturers should develop instructional materials that are clearly defined; structure them well; they should be relevant, and they should be accessible to students from other educational experiences, as well as culturally diverse backgrounds. Lecturers should also consider pacing lessons effectively so that students will have ample opportunity to comprehend the material being delivered; ask questions related to the lesson; and apply the lesson to their own academic context. These considerations are critical during short-term instructional settings, since there is often an insufficient amount of time provided to allow students to fully absorb technical content. Therefore, cross-border teaching needs to go beyond just covering content to include the students' capacity to follow, understand, and engage in the learning process.

Policy Contributions

The study is supportive of the development of more inclusive and larger-scale Internationalisation Strategies in Higher Education from a policy point of view. Cross-border teaching programs, which are relatively short-term, provide an opportunity for Students to be exposed to international opportunities at lower costs (and thus greater accessibility) than the longer-term mobility programs. Institutions can use these types of Programs to promote their internationalisation-at-home initiatives as well as reduce the Barriers to Participation associated with Cost, time, and Travel.

In addition to the above-mentioned points, the Study has found evidence supporting the importance of systematic Designing of International Academic Collaboration Programs by Higher Education Institutions. In order for such Programs to result in Meaningful Learning Outcomes, there must be Institutional Support, Careful Planning, Appropriate Resources to teach, and Culturally Responsive Pedagogy. Therefore, Short Term International Collaborative Teaching Programs can be viewed as contributing to Broader Sustainability Agendas, specifically Quality Education and Global Partnerships.

CONCLUSION, LIMITATIONS AND FUTURE RESEARCH

This study investigated students' learning experiences in a short-term International Academic Collaboration Program (IACP) using cross-border teaching by Malaysian lecturers at a university in Indonesia. Overall, students felt positive about their participation in IACP; they expressed higher levels of satisfaction, greater understanding, and valued being able to participate in international academic exposure.

Quantitative results indicated that teaching materials and pace of delivery were significant predictors of student satisfaction. The full model explained 74.2% of the observed variance (adjusted $R^2 = 0.704$), rather than all variation. Students valued clear, structured learning materials and a pace they could follow. The other teaching-quality variables were positively correlated with satisfaction but were not statistically significant after all predictors were entered simultaneously, possibly because the measures shared overlapping variance. These results should be interpreted cautiously because the modest sample and relatively large number of correlated predictors may produce sample-specific estimates.

Qualitative findings supported the value of clear explanations, classroom engagement, and learning from international lecturers. Students also identified fast-paced delivery, language barriers, and brief lecture times as challenges. This does not conflict with the positive regression coefficient for pace: the survey assessed the appropriateness of pace, so a more manageable pace was associated with greater satisfaction, whereas the comments explain why some students rated pace less favourably. In conclusion, the International Academic Collaborative Program enhanced students' learning experience, satisfaction, and global awareness. To optimise these benefits, universities should adopt an adaptive pedagogical approach that considers learners' prior knowledge, language background, culture, and learning needs.

Further, the lecturers should prepare clear and organised instructional materials and deliver at a suitable speed for the host students. There are several limitations to this study. First, the sample size was quite small, comprising students participating in one program, so results may not generalise to all cross-border teaching programs. Second, the data collection method used self-report surveys. Self-report methods are typically reflective of how people feel immediately after completing a task or activity and not what they might think later about their activities. Lastly, the focus was specifically on accounting-related courses; therefore, it is likely that results may vary depending upon discipline.

Future research would seek to improve these limits by increasing the sample size of participants, having multiple institutions, and including students from different countries. Also, longitudinal studies could be done to see if cross-border teaching had a lasting effect on students' learning outcomes, intercultural awareness, academic motivation etc. In addition, future studies could ask lecturers for feedback regarding their preparation, delivery and challenges

of international collaborative teaching. Studies could also compare outcomes based on discipline to assist in refining/validating a delivery-based approach to cross-border teaching.

Ethical consideration

Ethical approval for this study was obtained from the relevant institutional ethics committee before data collection. As the study involved human participants, all procedures were conducted in accordance with established ethical standards. Participants were informed of the study's purpose, assured of confidentiality and anonymity, and participated voluntarily.

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