

The Efficacy of The Evolving International Partnership Education Model (EIPEM) In UAE Educational Institutions: A Mixed Method Case Study Research

فاعلية النموذج المتطور للتعليم بالشراكة الدولية في المؤسسات التعليمية بدولة الإمارات العربية المتحدة: دراسة حالة باتباع منهج البحث المختلط الأساليب

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of the requirements for the degree of

MASTER OF EDUCATION

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Abstract

This study examines the efficacy of the evolving international partnership education model (EIPEM) in United Arab Emirates (UAE) educational institutions. A mixed research design approach was adopted to answer the four research questions. Eight teachers and twelve students were selected from four educational institutes in the UAE to participate in surveys/interviews. The survey data was collected using Google Forms while virtual interviews using Zoom were conducted with a small number of the sampled teachers and students. Qualitative data were analyzed using a thematic data analysis approach. Descriptive statistical analysis was applied to analyze responses to survey/interview questions, which required participants to rate their agreement to various statements. Quantitative analysis findings show that more than 75% of teachers acknowledge that EIPEM has created sufficient educational support infrastructure, enhanced collaborative learning, and promoted conducive learning in UAE educational institutes. Based on the thematic analysis, most teachers and students acknowledge that educational institutes using EIPEM possess better learning facilities/resources. Findings also show that EIPEM has improved collaborative learning because of students' desire to interact with others while teachers claim that the model has significantly reduced the teaching workload. In conclusion, EIPEM has the potential to improve the quality of education in the UAE.

الملخص

تبحث هذه الدراسة في فاعلية النموذج المتطور للتعليم بالشراكة الدولية في المؤسسات التعليمية في دولة الإمارات العربية المتحدة. تم اعتماد منهج البحث المختلط الأساليب للإجابة على أسنلة البحث الأربعة. تم اختيار ثمانية معلمين واثنا عشر طالبًا وطالبةً من أربع مؤسسات تعليمية في دولة الإمارات العربية المتحدة للمشاركة في الاستبانات والمقابلات. تم جمع بيانات الاستبانة باستخدام نماذج جوجل (Google) بينما تم إجراء المقابلات الافتراضية باستخدام نماذج جوجل (Google) بينما تم إجراء المقابلات الافتراضية باستخدام برنامج زوم (Zoom) بيانات العربية المتحدة للمشاركة في الاستبانات والمقابلات. تم جمع بيانات الاستبانة باستخدام نماذج جوجل (Google) بينما تم إجراء المقابلات الافتراضية باستخدام برنامج زوم (Zoom) بيانات الموضوعي. تم المعلمين والطلبة المشاركين ضمن عينة البحث. تم تحليل البيانات النوعية عن طريق تحليل البيانات الموضوعي. تم استخدام التحليل الإحصائي الوصفي لتحليل الردود على أسئلة الاستبانة والمقابلة، مما تتطلب من المشاركين أن يقوموا بتقيم مدى موافقتهم على العبارات المختلفة. أظهرت نتائج التحليل الاستبانة والمقابلة، مما تتطلب من المشاركين أن يقوموا بتقيم مدى موافقتهم على العبارات المحتليل الردود على أسئلة الاستبانة والمقابلة، مما تتطلب من المشاركين أن يقوموا بتقيم مدى موافقتهم على العبارات المختلفة. أظهرت نتائج التحليل المي أن أكثر من 75٪ من المعلمين متُفقون أن هذا النموذج قد أنشا بنية تحتية داعمة للتعليم بشكل كافي، وحسَنَ من التعليم أن أكثر من 75٪ من المعلمين والطلبة أن أن هذا النموذج قد أنها بنية تحتية داعمة للتعليم بشكل كافي، وحسَنَ من التعليم أن أكثر من 75٪ من المعلمين والطلبة أن أن هذا النموذج قد أنها بنية تحتية داعمة للتعليم بشكاكافي، وحسَنَ من التعليم أل ملين في معظم المعلمين والطلبة أن هذها الموذج قد ألمومار ات العربية المتحدة. بناء على التحليل الموضو عي، اتفق معظم المللبة أن أن هذا النموذج قد ألامار ات العربية المتحدة. بناء على التحليل الموضو عي، اتفق معظم المعلمين والطلبة أن أن هذا النموذج في دولة الإمار ات العربية المتحدة. بناء على التحليل الموضو عي، اتفونى ألمون وما المون و من ألموذمي قد الموضو عي، أنهم المايمية أوما من العربي ألمؤسات التعليمية ألفسان التعليم ألمانموذم قدا الموذم قدا ألموذمي قدال ألموذمي قدسان ألموضون ألم

Dedication

I would wish to dedicate this dissertation work to my better half and my best friend, Muhammad Jawad Akram, who has always been with me throughout the preparation of this research paper. I will always appreciate your continuous support. A big thank you to you as you are a perpetual source of inspiration for me.

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LIST OF ABBREVIATIONS

EIPEM	Evolving International Partnership Education Model
IPEM	International Partnership Education Model
ISP	International School Partnerships
SEM	Science, Engineering and Medicine
STEAM	Science, Technology, Engineering, Arts, and Mathematics
STEM	Science, Technology, Engineering and Mathematics
UAE	United Arab Emirates

1.0 INTRODUCTION

Education is vital for the development of a nation and the integral uplift of society. Therefore, there is a dire need for collaboration and partnerships in educational institutions and the relevant government and private organizations to promote equity in education (Matsumoto, 2019). The significant importance of partnerships in education is eliminating the complexities that might occur due to difficulties in aligning with the relevant existing education mainstream (Ashour and Fatima, 2016). In this study, the concept of the evolving international partnership education model (EIPEM) integrates the organization's and society's ideals in promoting the attainment of the dominant goal of quality education. Participation and involvement are critical aspects in the success of the EIPEM where relevant partners combine efforts to create favorable environments that support the beneficiaries (i.e., students) efficaciously. Education is the backbone of innovations that has ever promulgated new ways of thinking and logic. Therefore, it is important to have systems that recognize the diverse educational impacts and act in the best interest of promoting them. There is a need to strengthen strategic partnerships by making them practical to ensure they deliver the satisfactory goals of promoting uniqueness and same-level education on international standards (Miller and Verhoeven, 2019).

The United Arab Emirates (UAE) has typical characteristics that distinguish it from the rest of the world, making it more vulnerable to desperate conditions that affect development and the quality of education. This country has been prone to various disasters, mostly political and cultural differences that have impacted development adversely. For this reason, it is viewed as economically troubled and with security concerns (Dimitrova et al., 2019). Education institutions in this country have also not been able to acquire the necessary resources for

improving the level of education. Therefore, the relevant authorities have established that international educational partnership is the only way to improve education and change the world's perspective about education in the country. It is also important for students and graduates to secure international-level jobs and rise to recognized and respected international standards (Chapman et al., 2014).

Just as some of the advanced nations have diversified economies, diversifying education is equally important since it is the basis for more innovative ideas and improves a country's potential. This country has plenty of low-ranking institutions that need collaborative boosts in terms of finance, learning material, and constructive ideologies that will help improve its potential (Miller and Verhoeven, 2019). By introducing international education partnerships in the country, there will be equal efforts to promote localization, which will help curb political, social, cultural, and religious barriers. Partnerships are crucial in building education networks since they help share ideas and enhance the availability of learning materials, especially in the digital era. Improving the education systems to international levels is dependent on strong partnership networks and intergovernmental collaboration with the private sector. Whenever relevant bodies combine efforts, they achieve the desired accomplishments required for setting upper standards that increase students' competency levels and all beneficiaries of the education systems.

According to Semali et al. (2013), having partnerships in promoting education helps eliminate various divisive aspects in society, such as ethnicity, religion, and language difference. For this reason, it is essential to weigh and consider these evident realities when setting ambitious partnership goals. Chiteng (2014) states the key goals of partnerships are envisioned to facilitate the attainment of equity, unity as well as building, maintenance, and management commitments that ensure robust positive achievements. The creation of policies is also crucial since it allows efficient time to consider the divergent views and aspects of the different parties involved and those expected to benefit from various partnership programs. Therefore, the EIPEM is a model committed to enhancing leadership and knowledge among educational institutions while surpassing the existing boundaries based on political, religious, and socio-cultural backgrounds (Al-Agtash and Khadra, 2019). Integration remains a key aspect in the development and propagation of the EIPEM since it ensures undistracted driving of the highlighted country's education programs. Since education is one of the uniting life facets, championing its support through the international partnership will improve its functionality, thereby eliminating the existing disparities (Armstrong, 2015).

The EIPEM is one of the crucial interventions that have ensured interconnectedness, thus promoting uniform global growth (Arulraj, 2017). There have been varying receptions and responses since different parts of the globe receive and respond to these changes differently owing to the ever-changing and abrupt technological advancements (Aljaber, 2018). Therefore, partnerships in basic systems such as education help ensure that all the institutions acquire and manipulate the technology space equally to achieve equity in the job market (Armstrong, 2015). There will be minimal competition, but instead, there is a need to promote support and increased innovations in the literacy world. An effective partnership should be in pursuit of addressing the differences and the commonalities that exist in all the relevant facets of the UAE education system (Al-Agtash and Khadra, 2019). The EIPEM also has to be sensitive in addressing the potential challenges affecting critical post-education facets such as job creating and

advancement of careers. Therefore, this study evaluates the efficacy of the EIPEM, studying its clear cases and application in the UAE.

1.1 Objectives of the Study

Given the impactful role of partnerships in different fields and aspects of life, examining the efficacy of EIPEM while drawing evidence from the UAE is crucial. Therefore, this research study aims at discovering both qualitative and quantitative evidence through exploration based on the main objective guided by the specific objectives and research questions, as evident in the subsequent lists below.

1.1.1 Main Objective

This study's main aim is to examine the efficacy of EIPEM in UAE educational institutes. The main objective is to evaluate how EIPEM has contributed to enhancing educational resource capacity, creating a better learning environment for students and teachers, and improving the overall quality of education in the UAE educational institutions.

1.1.2 Specific Objectives

- To explain the required expertise and resources necessary for enhancing education in the UAE.
- To influence the creation of effective and sustainable environments in educational institutions under EIPEM.
- To enrich the beneficial attributes of the EIPEM in promoting education in the UAE to global standards.

1.2 Research Statement

The formulated objectives and research questions will guide the study in ensuring its productive outcome that addresses the research question. The intended purpose of this research is to understand the contributions of the EIPEM in enhancing the reputations of the UAE to the world and improving standardized education in the country. This study will bridge the existing gap on current knowledge in EIPEM research and improve the relationship among institutional leaders in the country to facilitate the model's embracement.

1.3 Research Questions

RQ1: To what extent is the EIPEM successful in creating support structures for education institutions in the UAE?

RQ2: How has EIPEM been instrumental in promoting collaborative learning in the UAE?

RQ3: How have the fundamentals of EIPEM facilitated the achievement of its goals in responding to the current global education trends?

RQ4: In what ways has EIPEM influenced the existence of effective and conducive learning environments in educational institutions in the UAE?

1.4 Hypothesis

- **Ho:** There is a significant influence of the societies' cultural and socio-political background on the effectiveness of partnership programs in education.
- **H**₁: There is a significant influence of the EIPEM on the quality of education and dissemination of resources for effectiveness and raising regional standards.

Measuring the hypotheses and research questions is done through surveys and interviews since they can be used in a mixed-method design as both qualitative and quantitative data collection instruments. The independent variable in this research is the EIPEM since its existence is not dependent on any performance or acceptance aspects. The dependent variable is the functioning and performance of the model since they are dependent on various factors such as the effectiveness of the organizations, availability of resources, and adaptability of the educational institutions in the country under study.

1.5 Significance of the Research and Dissertation Structure

The findings from this research are expected to generate a significant contribution to the existing body of theoretical literature on the EIPEM framework. Specifically, the dissertation findings are expected to improve the existing knowledge on the relationship between EIPEM and standards of education in the UAE in terms of the educational resource endowment, student motivation, student career prospects, educational standardization, and overall socio-economic growth. Furthermore, the findings are also expected to generate useful insight for the educational institutions in the UAE that are operating the EIPEM framework as well as those that have not yet adopted the model. Finally, the expected findings are also certain to be of considerable importance to the education stakeholders, including the UAE ministry of education and to highlight how effective implementation of the EIPEM framework in most schools/educational institutions would enhance students' motivation, performance, career prospects, and therefore, contribute to the country's economic growth.

The conclusion from this study is expected to facilitate improvement in the current EIPEM educational programs that are available in the UAE. The success or effectiveness of the

EIPEM educational framework (partnership arrangement) is likely to inspire similar trends and adoption of the international partnership educational model (IPEM) in other educational institutions across the UAE.

The next chapter (2) of this dissertation presents both theoretical and empirical literature reviews on the efficacy of EIPEM in creating sufficient educational resource infrastructure and raising the quality of education in the UAE. The dissertation also focuses on examining the efficacy of EIPEM on education curriculum standardization as well as for the student's motivation and career prospects. Chapter three (3) describes how the mixed research design using both qualitative and quantitative data collection approaches based on surveys and interviews will generate data for analysis to answer the specified research questions. Chapter four (4) presents a summary of the survey and interview responses using thematic analysis and descriptive statistical analysis. Finally, chapter five (5) discusses the findings in light of the research aims or research questions as well as the prior empirical findings and the conclusion.

2.0 LITERATURE REVIEW

2.1 Introduction

This part presents a review of existing literature concerning EIPEM and its implementation in the UAE. The literature review part offers a critical analysis and comparison of factors that affect the efficiency of quality delivery in education through the EIPEM. For this purpose, the literature review for this study will contain the effective factors of the EIPEM such as its fundamentals, analysis of its existence in the UAE, student motivation, achievements, students support infrastructure, students' perceptions of the program, and the performance of four Educational institutions in the UAE that operate under EIPEM.

2.2 EIPEM Structure in the UAE

The IPEM in the UAE takes a particular pattern that values innovation as its top-notch target. It aims at creating a conducive learning environment for the students and teachers to improve the quality of education and improve societal culture. The implication is that under the EIPEM structure in the UAE, students, and teachers have an incentive to adopt innovative learning approaches that would enhance the overall quality of education in the country.

The stated EIPEM structure is consistent with the UAE national innovation strategy, which specifically requires educational institutions in the country to lower spending by 1% to invest in research and innovation projects (Arulraj, 2017). This is expected to enhance UAE's position as an international center for innovation. Based on the EIPEM structure in Figure 1, the societal culture of innovation in the UAE will guide the approach to learning across the country's education system. As depicted in the EIPEM structure model, the desire for quality education coupled with the societal culture for innovation has influenced the nature of the

current EIPEM structure model in UAE educational institutes. The teachers and students would have an incentive to introduce new innovative learning models that improve the overall quality of education in the UAE (Matsumoto, 2019). The general structure of the EIPEM framework that applies in educational institutions across the UAE is presented in Figure 1 below.

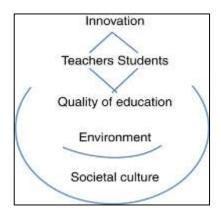


Figure 1: EIPEM Structure in the UAE (Matsumoto, 2019)

2.3 Fundamentals of EIPEM

A study by Matsumoto (2019) presents detailed research results on the components and results of education internationalization in the UAE, and its effects on higher education. According to the author, the process of adopting and integrating the IPEM in the UAE has risen rapidly in the last decade, thus the name, "evolving". However, Ashour and Fatima (2016) state that the UAE is still striving to raise the standards of its education and therefore, the reason for a greater urge to internationalize higher education for higher performance levels. Consequently, Matsumoto (2019) owes the rising achievements in EIPEM in the UAE to the rapid globalization that creates the urge for a uniform level of education. Globalization also has an impact on economic and political progress in the country thus creating a base for development and greater achievements.

Therefore, one of the most important fundamentals of EIPEM relates to its reliance and application of a standardized educational curriculum as well as a uniform exam grading system (Arulraj, 2017). EIPEM is based on the standardized educational curriculum, which allows UAE students to study under a similar education system to their international colleagues (Matsumoto, 2019). Furthermore, to enhance fairness and objectivity in the students' academic scores, the standardized exam grading system is also synonymous with EIPEM. The uniform exam grading system is a fundamental feature of EIPEM because it enables UAE educational institutes and students to compare their performance with their international counterparts (Arslan, 2018).

The other key fundamental aspect of EIPEM concerns its consistent application of the students' and teachers' exchange programs (Ahmad and Hussain, 2015). The exchange program provides a platform for students and teachers to interact with their colleagues and therefore, share educational knowledge, skills, and experience. According to Al-Aleeli et al. (2018), the exchange program is one of the most important EIPEM fundamentals that has supported educational innovation in UAE academic institutes. The exchange program is also considered important in promoting intercultural awareness among students. The insight based on Armstrong (2015) also indicates that inter-educational institution collaborations through the exchange program have played an important role in strengthening the teachers' skills and competency.

2.4 Analysis of EIPEM in UAE

EIPEM has been resourceful in providing effective resource allocation and creating a conducive environment for learners in the UAE (Matsumoto, 2019). According to Goe et al. (2020), the system has provided adequate chances for students to excel in cultural studies,

research, technology, innovation, and the development of education levels to international standards. The EIPEM has led to increased interaction among students and the teaching staff in schools, unlike the situations before the development of the programs.EIPEM exists in the UAE in various dimensions, where different schools have acquired different international programs. This means that through the EIPEM educational system, students from UAE educational institutions can interact effectively with other students from international educational institutes, which operate under the same system. Therefore, this study focuses on examining the important achievements in the UAE educational institutes since the inception of the EIPEM. Matsumoto (2019) states that development has been evident in all learning institutions in the country, including those under EIPEM and those under the local programs, due to fair and uniform competition.

The insight based on the research findings by Al-Aleeli et al. (2018) indicates that over the past decade, there has been a considerable level of internationalization of higher education in the UAE. According to the authors, the desire to incorporate an international dimension into the teaching and learning process has mostly contributed to the rise in the international partnership school models in the country. The international dimension as noted from the study by Al-Aleeli et al. (2018) incorporates the use of a standardized educational curriculum that is internationally recognized, the adoption of standard educational resources, exam grading system, and educational technologies. In addition, findings from the research study by Arslan (2018) also indicate that the main factor that influenced the educational partnership arrangement between the University of Canberra -Australian Capital Territory (ACT) and the Khalifa University in UAE was the need for standardization of higher education programs. Besides, the educational partnership program also sought to improve the university brand and its ranking compared to other higher education institutions that have not yet adopted the partnership model.

Generally, EIPEM in the UAE also takes the form of partnerships not only among educational institutes but equally among higher educational institutions and international research organizations (Arslan, 2018). For instance, based on the study by Arslan (2018), the educational partnership between Khalifa University-UAE and the University of Canberra-Australian Capital Territory (ACT) was mainly driven by the need to improve academic collaborations as well as strengthen the local university research capacity. Similarly, the recent groundbreaking partnership arrangement between Zayed University and Minerva Project was also expected to enhance the quality of education in the stated institution of higher education (Rizvi, 2021). According to Zayed University, the partnership between the educational institution and the American innovator (Minerva Project) would strengthen the students' research knowledge and improve their problem-solving skills (Rizvi, 2021). Therefore, in the UAE, educational partnership arrangements are usually guided by the need to strengthen academic performance, promote knowledge sharing and enhance the institutions' research capacity (Al-Aleeli et al., 2018).

2.5 Student Motivation under EIPEM

According to Wu et al. (2019), student motivation under EIPEM occurs as a result of the improvement in the conditions of facilities and services provided in the institutions. The improvement in learning activities and the development of facilities that support learning in institutions under the EIPEM motivate students to have a greater urge for education. The program also provides appealing international offers that cultivate a greater need for excellence

among students. Subsequently, Murshidi (2020) states that student motivation under EIPEM is an issue of concern since it is a mark of the adoption level among the students. For this reason, Murshidi (2020) further implies that the inception of IPEM in the UAE has contributed immensely towards reducing the number of school dropouts among students.

The qualitative research study that was conducted by Whatley et al. (2009) examined students' motivational levels under the EIPEM. According to the findings, engagement in online peer review among students tends to enhance their overall motivation. Furthermore, students' motivation remains considerably high under the EIPEM because of their ability to acquire different skills and intercultural awareness (Whatley et al., 2009). Similarly, the study by Armstrong (2015) also indicates that the desire to interact with other students from participating schools is influenced by the students' need to learn the culture of their international colleagues. Armstrong (2015) also finds a significant association between students' motivation and interschool collaboration. Furthermore, students who attend schools that have IPEM tend to outperform their peers in non-collaborated schools (Armstrong, 2015).

The findings from the study by Woods et al. (2013) also show a relationship between students' desire to enroll in educational institutes that have IPEM and student academic attainment. Chapman and Muijis (2014) further show proof that federated educational institutions tend to outperform their peers from other academic institutions using the local model in terms of students' academic performance. The implication is that based on the insight that students' performance under the IPEM educational system is usually exceptional, most students and parents tend to be motivated to enroll in schools that adopt the IPEM (Woods et al., 2013).

There is also strong research evidence, which shows that student's motivation to study in schools that adopt the IPEM is motivated by the higher prospects of obtaining employment. For instance, Armstrong (2015) reports that both teachers and students operating under the EIPEM educational institutes tend to be positive about their long-term career prospects. The fact that these students learn based on a standardized educational curriculum implies that in contrast to their colleagues studying in local schools, they are in a better position to compete with other students in the international job market (Al-Agtash and Khadra, 2019). Furthermore, the opportunity to acquire exceptional leadership ability when studying under EIPEM also seems to motivate a considerable number of students to enroll in educational institutions that operate the EIPEM. Armstrong (2015) suggests that the EIPEM provides students an opportunity to acquire leadership training and development, especially in educational institutions that have an exchange program.

2.6 Student Perception of EIPEM

The research study by Barclay and Ercikan (2017) indicates that students learning under international programs in the UAE get motivated by the efficient learning practices experienced and a better understanding of their needs by the institutional management and the international program oversight department. Therefore, a considerable number of students have perceived the EIPEM as effective and one that aims at reshaping and restructuring education to ensure students in all countries globally are able to compete under similar standards. A survey by Ahmad and Hussain (2015) shows that majority of the students in the UAE have always been willing to study abroad for them to qualify under the provided international standards. However, this narrative and notion have changed since the inception of the EIPEM in the UAE. Students have, therefore, been satisfied with the quality of education offered and the mode of education where they learn under competency-based curricula. With this mode of learning, students can identify their abilities and talents, and then their teachers motivate and guide them to pursue careers that suit them best from a tender age. Consequently, Khan et al. (2020) state that the exchange programs that exist between schools in the UAE and their partners abroad under a similar international program have motivated students to perform better when exposed to the opportunities that exist globally.

The empirical findings by Parahoo and Tamim (2015) depict the determinants of students' satisfaction in Dubai and other middle east countries. According to the results, the university brand image attributed to the use of international collaboration was noted to be the main independent factor that influenced students' satisfaction levels. This means that most students perceive universities that operate the IPEM as having a greater public image, which in turn influences their attractiveness. However, Armstrong (2015) views educational institutions' public image based on their academic performance, investment in educational resources, and financial stability. For instance, according to the article by Armstrong (2015), the learning-oriented and inquiry-based culture of the inter-educational institutions collaborations has mainly contributed to the enhanced reputation and attractiveness of the universities that adopt the EIPEM.

Finally, the extent of student interaction in the EIPEM framework as well as the possibility of knowledge/skills sharing as part of the university exchange sharing program also influenced students' satisfaction levels. The students' overall satisfaction and perception of the higher education institutions are informed not only by its academic performance but equally on other social aspects such as the extent of students' interactions (Goe et al., 2020). The exchange

programs provide excellent opportunities for students to meet their colleagues and share knowledge, skills, and experiences. Furthermore, Al-Agtash and Khadra (2019) also argue that the basis of internationalization in Saudi Arabia's higher educational institutions is informed by the need to ensure that students acquire cross-disciplinary skills and intercultural awareness.

2.7 Achievements of EIPEM in UAE

Ibrahim and Alhosani (2020) state that EIPEM has promoted educational growth in the UAE and promoted learning standards to international levels. Through corporative learning, students have been able to achieve more in their education and qualify for competition in international education standards. Initially, Arabic was the main language in the UAE. However, after the inception of the EIPEM in the country, most schools have adopted English as the second language, and for others, it is even a compulsory language taught in their schools. For this reason, the exchange programs between institutions in the UAE and their partners in other continents like the US and the UK under the same program have been easier. Ultimately, Banks et al. (2016) state that graduates who have learned through the international education programs in the UAE have been able to secure jobs in the international market, thus proving the competitiveness of the program. Availability of student support infrastructure has also been one of the significant achievements of the EIPEM. According to Altbach (2015), institutions benefit from international education programs since more development funds are allocated to them as a way of promoting standards and creating reliable resource facilities that support learning environments. Therefore, schools under international programs in the UAE have set a trend beyond other institutions under the local learning systems since they have been able to achieve better and more reliable learning infrastructure.

The study conducted by Al-Agtash and Khadra (2019) also found that in Saudi Arabia, the EIPEM framework is also rapidly expanding in the country. There are several reasons for the rapid growth of the EIPEM educational framework in Saudi Arabia. The most important aspect that has contributed to the proliferation of EIPEM in Saudi Arabia relates to the need for a strengthened position in the provision of higher education (Al-Agtash and Khadra, 2019). Besides, the idea of education internationalization through EIPEM has also contributed to making higher education institutions a dynamic cross-border environment. According to Al-Agtash and Khadra (2019), the other efficacious benefits of the EIPEM framework are that it supports international education program cooperation, offers internship opportunities for students, and facilitates research collaborations among the participating higher education institutions.

2.8 EIPEM Student Support Infrastructure

According to Zuhairi et al. (2019), international standards in schools are not only valued based on education levels but also according to the infrastructure that an institution provides to support such intensive learning. Subsequently, Goe et al. (2020) provide a list of some of the support infrastructure for the students that is compulsory for an institution that provides education under the IPEM. According to Goe et al. (2020), some of the infrastructure required for the schools under the IPEM include multipurpose rooms, teaching and support staff, administration officials, resource facilities such as libraries, and computer labs, ablution blocks, and efficient sports facilities.

The international partners and collaborators have been noted to play an important role in the development of information technology infrastructure across Saudi Arabia. The findings from the research study by Aljaber (2018) indicate that the international partners, especially from the U.S. and the UK have been instrumental in the initiation and rollout of e-learning programs. These international partners contribute financially, socially, and technologically ineffective implementation of the e-learning programs across Saudi Arabian schools and in institutions of higher learning. Recently, the students support infrastructure in UAE schools has also extended to the investment in a research capacity. This means that students who study in educational institutions that adopt the IPEM are in a better position to strengthen their research skills, knowledge, and experience because of the existing research resources. The need to strengthen their institutional research capacity was one of the primary reasons that recently led Zayed university to enter into a partnership arrangement with the Minerva Project (Rizvi, 2021). Therefore, besides educational infrastructure, EIPEM also offers and improves research capacity.

2.9 Performance of Four Educational Institutions in the UAE under EIPEM

The following table presents some of the educational institutions in the UAE that fall under the EIPEM, which formed the sample for this study.

EIPEM Structure: Four selected Educational Institutions in the UAE				
	Educational Institution 1	Educational Institution 2	Educational Institution 3	Educational Institution 4
Туре:	-Enquiry-based model of the EIPEM learning structure. -Offers STEM learning with Science, Technology, Engineering,	-STEAM learning, which entails learning Science, Technology, Engineering, Arts, and Mathematics.	-SEM learning model focusing on science, engineering, and medicine.	-Liberal Arts and Science subjects

	and			
	Mathematics as the core			
	subjects.			
Program:	-National	-Three	-Substantial	-Substantial
	Curriculum for	programs are	Equivalency	Equivalency
	England (NCE)	the Primary	Program and	Program
		Years Program (PYP), Middle	Career-related Programs	
		Years Program	Tiograms	
		(MYP), and the		
		Career-related		
		Program (CP).		
Department	-International	-English to	-Department of External Affairs	-Department of International
offering EIPEM:	Schools Partnerships	Speakers of Other	and the	Education
	(ISP) and	Languages	Department of	under Middle
	Inclusion	(ESOL) and	International	States
	department	inclusion	Students	Commission on
		department		Higher
				Education
When EIPEM	-All year round	-Throughout	-EIPEM is	-Throughout
is offered:	and begins	the year from	offered	the year.
	from	the first year to	throughout the	Quality
	Foundation	the final year	year from the	Assurance of
	stage 1 (FS1).		first year to the final year.	<i>the Program:</i> -Assessing the
			Quality	level of
			Assurance of the	preparedness
			Program:	for students by
			-Auditing of E-	offering exams
			syllabus readiness and	under both local and
			compliance	international
			-Review of	education
			Assessment,	programs.
			Evidence, and	
De de la la	Descrite	Canada	Grades	Develo
Partnership Strategies:	-Regular engagement	-Career guidance team.	-The signing of cooperation	-Development of exchange
Sualegies:	ungagement	guiuance team.	cooperation	-
-	and interaction	-Availability of	agreements with	programs with
	and interaction among the 48	-Availability of full-time	agreements with high-level	programs with partners in the

institution	s to and specialized	institutions such	have their
enhance th	1	as the academic	students
quality and		collaboration	interact and
standards		with overseas	exchange ideas
education	1	universities.	during different
academic	Education	-The signing of	periods of the
institution	s. Needs and	research	academic year.
-Support	Disabilities	agreements with	-Abolition of
sharing of	(SEND)	reputable local	the grading
knowledge	e inclusion for	and international	system to avoid
through a	all students.	corporates such	student
common I	SP	as Štrata, Abu	humiliation.
curriculun	n as	Dhabi National	
well as usi	ing	Oil Company	
the partner	-	(ADNOC),	
exchange	1	Boeing, British	
programs.		Petroleum (BP),	
-Provide		and Etihad	
excellent		Airways.	
internation	nal	-Regularly	
learning		engaging its	
connection	18	fraternity with	
and quality		partnership	
assurance		representatives to	
ISP group		discuss matters of	
schools.		common interest.	
schools.		common interest.	
			<u> </u>

 Table 1: Performance of the Four Educational Institutions in the UAE (Source: Author).

Summary

Based on the information presented in Table 1 above, the four (4) UAE educational institutes mainly offer technical subjects (STEAM, STEM, and SEM) as part of the EIPEM educational program. The National Curriculum for England and the Substantial Equivalency Programs are popular among the four educational institutes that operate EIPEM in the UAE. All four educational institutes also offer EIPEM from the foundation stage or from the first year to the final year university level of education. The implication is that among the four (4) UAE

educational institutes that were selected for this study, EIPEM is considered from the early years to the final years of education.

3.0 METHODOLOGY

3.1 Introduction

This chapter will discuss the methodological tactics utilized in this study. The concepts that will be highlighted are the research design, the research strategy employed, and the data collection approach. The research will also examine the methods of data collection and analysis that will be used in the research as well as the ethical considerations put in place to ensure participants' safety and safeguard their responses. The details on the authorization of the research will also be described in this chapter.

3.2 Research Questions

The research questions are usually informed by the motivation and specific aims of the research study (Creswell, 2014). The research questions for the present study, which are aligned to the aims of the research are specified as follows;

(i) RQ1: To what extent is the EIPEM successful in creating support structures for education institutions in the UAE?

(ii) RQ2: How has EIPEM been instrumental in promoting collaborative learning in the UAE?(iii) RQ3: How have the fundamentals of EIPEM facilitated the achievement of its goals in responding to the current global education trends?

(**iv**) RQ4: In what ways has EIPEM influenced the existence of effective and conducive learning environments in educational institutions in the UAE?

3.3 Research Methodology and Paradigm

The research design methodology is a framework of methods and practices used to integrate multiple research components to achieve the formulated research questions effectively

(Fellows and Liu, 2015). The study will adopt a mixed research design approach to answer the four research questions. The mixed research design approach will entail the analysis of qualitative and quantitative data from the surveys and interviews. The stated research design will describe the population and answer the 'how,' 'what,' 'where,' and 'when' questions of the research concerning the efficacy of EIPEM in promoting education standards in the UAE. The relevant data provided for the study consists of both qualitative and quantitative data.

The research design integrated both qualitative and quantitative approaches of data collection drawn from the target population group. Qualitative and quantitative means of data collection such as surveys and interviews were employed to assess the perception of respondents on the effectiveness of the EIPEM framework in facilitating the performance of UAE schools/educational institutes. The study employed a mixed method of research approach which involves both qualitative and quantitative methods of data collection and analysis. The implication is that as part of the mixed research methods, the study relied on both open-ended and close-ended responses to the surveys and interviews since it is crucial in understanding the education programs in all dimensions as to how it affects students and the relevant means of its adoption.

Research paradigms capture a constellation of philosophical beliefs and values, which are shared by a given set of the community (Creswell and Clark, 2017). As philosophical beliefs, research paradigms guide the overall direction and design of the research study (Creswell, 2014). The present research study is guided by the pragmatism research paradigm. A pragmatism research paradigm is based on the idea that researchers should adopt the research design or methodological approach that is appropriate or best fits a particular research problem (Tashakkori and Teddlie, 2003). The pragmatism research paradigm employs the research methodology and, or research design that is most appropriate in answering a given research question or attaining a solution to a specific research problem (Creswell and Tashakkori, 2007). Therefore, as part of the pragmatist research paradigm, the study employs a mixed methods research design using both quantitative and qualitative data collection instruments and analysis. The mixed methods research design methodology is appropriate in attaining a solution to the issue of the EIPEM, which can be effectively addressed using a multi-pronged approach. One of the main strengths of the pragmatist research paradigm is that it provides flexibility to the research question (Tashakkori and Teddlie, 2003).

3.4 Target Population and Sampling

The target population for the study consists of students and teachers of educational institutions that operate under EIPEM in the UAE. A judgmental sampling approach was used to select the survey/interview participants for this study. A judgmental sampling approach is a non-probability sampling in which subjects are selected based on the researchers' opinions, judgment, and prior knowledge (Knapik,2008). The judgmental sampling approach was considered appropriate for this study because of the need to recruit only those students and teachers that have an excellent understanding of EIPEM in their respective institutions. Therefore, in selecting the sample based on judgmental sampling, the researcher was guided by the need to give priority to individuals with knowledge of the research subject matter. An important strength of the judgmental sampling approach is that the researcher has considerable leeway to decide on the selection of a sample that is not only representative but equally relevant and useful to the research (Saunders et al., 2016).

The study selected a sample size of three students and two teachers from each of the four educational institutions that operate under the EIPEM program selected for this study. Therefore, the total sample size for the study consisted of 20 individuals, 12 of them being students, and 8 were teachers. This sample, which was selected based on the judgmental sampling approach is highly representative because an equal number of students and teachers was selected from each of the four (4) educational institutes, which participated in this study. The implication is that the participants' views and opinions about the research topic on the efficacy of EIPEM in the UAE educational institutions are likely to be highly representative of the perceptions among students and teachers.

3.5 Research Instruments and Data Collection

According to Frels and Onwuegbuzie (2013), instrumentation refers to the data collection tool or means by which researchers attempt to measure items and variables of interest during the data collection process. This process includes not only the instrument design, construction, and evaluation but also the conditions under which these instruments are administered (Paradis et al., 2016). According to Félix-Brasdefer (2010), data collection entails the procedure of gathering the required information from the relevant population of analysis to give answers to the proposed research questions. The mixed methods research approach for this study meant that both surveys (quantitative and qualitative) and interviews (qualitative) were included as the main data collection instruments. The surveys and interviews data collection instruments are briefly described in this subsection.

3.5.1 Surveys

Surveys are considered quantitative data collection instruments because the data collection tools assign numerical values to participants' opinions and views (Saunders et al., 2016). According to Creswell (2014), surveys allow the researcher to study certain aspects or attributes of the target population by assigning numerical values to qualitative opinion, trends, insights, and views. The survey instrument for data collection in this study includes questionnaires similar to those attached in the appendix section (Exhibit 2 and 3). Due to the ongoing pandemic, the research entailed the use of virtual/online interviews using zoom meetings as a means of data collection. Google forms were designed and created online using the Google Docs tool and their corresponding links sent to each of the selected participants. Therefore, questionnaires were sent and administered to the selected individuals through their primary email address contact. Primary data was collected based on the responses to the survey questionnaires. The survey questionnaires constituted both open-ended and close-ended questions. The close-ended questions involved placing responses into categories as well as selecting from a complex list where the respondents were required to choose the most appropriate option that applies to them. The close-ended questions included a continuous rating scale that aids in measuring the strength of the participants' attitudes and emotions. The openended questions sought to elicit responses to general questions to clarify an issue or provide additional details on a given aspect of the research survey. In this study, there were two distinct survey questionnaires for teachers of the four (4) educational institutions and students that study in the selected four (4) academic institutions. Figure 2 summarises a breakdown of the two questionnaires. The teachers' survey included a set of questions that explore the instructors' perception of the extent to which EIPEM has facilitated the creation of educational support structures, collaborative learning, and responsiveness to the current global educational trends. On the other hand, the students' survey included a set of questions that sought to identify the learners' perception of the extent to which EIPEM has managed to create a conducive learning environment and student motivations.

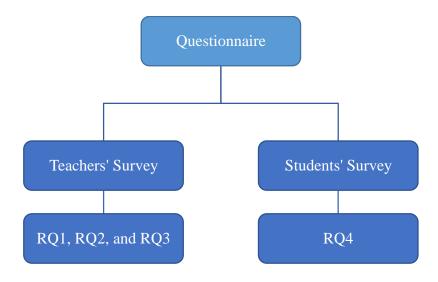


Figure 2: Breakdown of the Teachers and Students Surveys (Source: Author).

The visual in Figure 3 shows that the teachers' survey (questionnaire) mainly sought to answer the first three (3) research questions. The first three (3) research questions capture the efficacy of the EIPEM in providing educational support structures (Q1, Q2, and Q10), collaborative learning (Q4, Q9, Q10, Q11, and Q12), and creating responsiveness to global educational trends (Q3, Q5, Q6, Q7, and Q8).

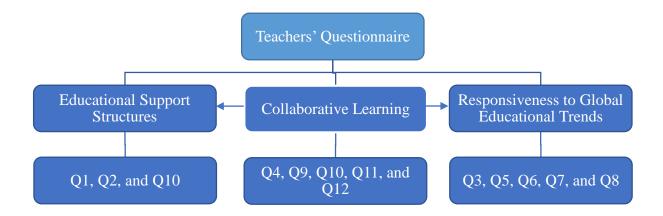


Figure 3: Breakdown of the Teachers' Survey Questionnaire (Source: Author).

The students' survey (questionnaire) included a set of questions that sought to ascertain the efficacy of the EIPEM in providing a conducive learning environment (Q2, Q3, Q4, and Q5) and enhancing students' motivation level (Q1 and Q6).

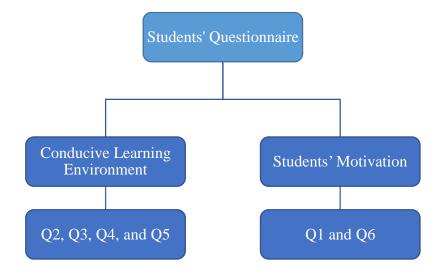


Figure 4: Breakdown of the Students' Survey Questionnaire (Source: Author).

The heads of the respective educational institutions played a central role in guiding the teachers and students on how to participate in completing the online survey via Google Forms. All the 12 students and 8 teachers who had agreed to participate in the survey were sent a Google Form link that contained the survey questions targeted to the students and teachers. The participants were informed that to access the survey, they had to click the link, answer the corresponding questions in the questionnaire and submit the survey online.

3.5.2 Interviews

The researcher participated in virtual interviews using zoom meetings with the participants, to ensure the authenticity of the data collected. Therefore, access to the internet and reliable personal computers such as laptops, desktops, and smartphones was necessary to facilitate the collection of data through online interviews. The interview was organized by the researcher to supplement the survey insight/responses by collecting additional information using open-ended questions. As shown in Exhibit 5 (Appendix), the interview consisted of eight (8) open-ended questions that mainly sought to clarify some of the aspects that could not be obtained using the closed-ended survey questions. Verbatim transcription of the interviews was undertaken to ensure that all the interview responses were recorded in the form of texts for subsequent thematic analysis.

There are several justifications for supplementing the survey insight/responses with qualitative interviews. Firstly, the interview is an important data collection instrument that supplements the insight (data triangulation) obtained from quantitative survey instruments, especially those that contain closed-ended questions (Creswell, 2014). Secondly, interviews also provide flexibility to the interviewer in terms of adapting the questions to the context and

the specific response provided by the respondent (Saunders et al., 2016). The third beneficial aspect of including interviews as part of the mixed methods data collection is that it allows the researcher to analyze the non-verbal cues, feelings, and emotions, which cannot be ascertained using surveys (McLeod, 2014). Finally, compared to mailed and online surveys, interviews tend to have a higher response rate because the interviewee is either physically or virtually present (Ryan et al., 2009). However, interviews can be costly, time-consuming, and might incorporate biases, especially when an inexperienced interviewer asks leading questions. The cost and time limitation of the interview was addressed in this study by including only a few respondents in the interview, which decreased the cost and time of the interview. On the other hand, the fact that the researcher is an experienced interviewer meant that the risk of bias during the interview was significantly minimized.

3.6 Validity and Reliability

Validity and reliability are measures that assess the quality of a data collection instrument or the entire research study (Creswell, 2014). Validity is a quality research measure that captures the relevance of a data collection instrument to measure specific construct variables for a research study (Knapik,2008). On the other hand, reliability is a quality research measure that facilitates assessment of the extent to which a data collection instrument provides consistent results (Knapik, 2008). The implication is that consistency and replicability of research are synonymous with the reliability of a measurement instrument. Bolarinwa (2015) states that reliability in research is determined by the consistency of a specific method in measuring variables continuously to achieve similar results.

3.6.1 Validity and Reliability of Interview

The validity and reliability of the interview were maintained throughout the primary data collection process. Firstly, as part of the reliability test, this study focused on employing the test-retest reliability measurement by carrying out the study on the same sample at different time points. The expectation is that the obtained results should be consistent and replicable to attain high reliability (Bolarinwa, 2015). As a result of the ongoing COVID-19 pandemic, the test-retest reliability was easier since the researcher conducted the study and involved a sample of teachers and students for the first time, after which the results were authenticated by engaging participants in a virtual interview. The researcher then held virtual interviews for the second time using zoom meetings with the same participants and collected another set of data, which was compared to the initial data. The reliability of the research method was confirmed since there was a high match between the two sets of data.

The validity and reliability of the interview were also enhanced by first testing the interview questions to a small sample of students and teachers. In the piloting of the interview questions phase, the researcher also reviewed and assessed the extent to which all the interview questions captured the four research aims/questions. Furthermore, to enhance the reliability of the interview as a primary data collection instrument, the interviewer was also trained on how to conduct an effective and unbiased interview. Validity and reliability were also considered during the transcription of the interview responses into texts for further thematic analysis. Finally, validity and reliability of the interview responses were also maintained by using an experienced interviewer who was aware of the risk of bias in interviews by mitigating the incorporation of leading questions.

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3.6.2 Validity and Reliability of Survey

As noted based on the insight from Cohen (2004), the validity and reliability of the survey were maintained by designing a questionnaire that included both open-ended and close-ended questions. The survey integrated a mix of both qualitative open-ended and quantitative close-ended questions to capture different aspects of the research topic from the teachers and students. In addition, the validity and reliability of the survey questions were also considered by using a standardized framework in the design of survey questions. The survey questions were reviewed and assessed for consistency with the four (4) research questions. Furthermore, the design of the survey questions considered the need to minimize the risk of question order bias, acquiescence bias, desirability bias, and the risk of non-response. Specifically, the risk of non-response in the survey was attained by limiting the number of survey questions to less than 15. The teachers' survey included 12 questions while the students' survey incorporated 6 questions.

3.7 Data Analysis

3.7.1 Qualitative Data Analysis

As part of the mixed research design approach, both qualitative and quantitative data analysis methods were employed. First, a thematic data analysis approach was employed to derive key themes and sub-themes that pertain to the effectiveness and benefit of the EIPEM framework for both students and UAE educational institutions. The thematic data analysis approach is considered the most reliable qualitative data analysis technique because of its effectiveness in facilitating the analysis of non-numerical data presented in the form of texts and visuals (Nowell et al., 2017). The frequency of appearance of these broad themes and subthemes was important in generating answers to the four (4) research questions. Thematic analysis is defined as the practice of reviewing and interpreting raw textual data to generate themes and concepts associated with a research topic. There are two main steps, which were adopted in conducting thematic analysis. In the first step, the interview responses were recorded and transcribed verbatim without deriving specific themes. The first step in the thematic data analysis is also important because it allows the researcher to gain a holistic understanding of the qualitative interview responses. In the second step, the researcher allocated broad themes and sub-themes based on common phrases and texts from the transcribed interview responses.

3.7.2 Quantitative Data Analysis

The quantitative data analysis approach entailed the use of descriptive statistical analysis, specifically using mean percentage frequencies displayed as Google charts. For instance, the mean frequency performance aspects, resource usage, academic benefits, student motivation level, communication, grading system, the use of a theoretical framework, and enhanced career prospects under EIPEM were presented in graphical format using the Google generated charts. The implication is that the quantitative descriptive statistical analysis only presented a summary of the participant's responses to the questions, which could be numerically coded. These mostly consisted of the instructors' responses to the teachers' online survey questionnaire.

3.8 Ethical Considerations

This study respects the rights of the participants and therefore, focuses on addressing the ethical considerations. The researcher was mainly concerned about the privacy, security, and general wellbeing of the participants, which makes it crucial to address the ethical

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considerations of the study. Therefore, for this dissertation, the ethical considerations were specified and designed as follows;

Informed Consent: The main ethical consideration is that each participant was administered with an informed consent form to append his/her signature. Participants were informed about the purpose of the study and the impact of their involvement in the study. They were also made aware of their roles and the restrictions within which they were expected to partake in the survey/interview. The researcher administered the informed consent to the participants before the study.

Voluntary Participation: Each participant was informed that participation in the study was of their own free will without being forced. This procedure was expected to allow each participant to have full command of their participation and decision to withdraw from the study.

Confidentiality: The researcher has maintained the confidentiality of the participants' data throughout the survey or interview. Anonymity was maintained by not disclosing the names of participants from the four educational institutes for both surveys and interviews. The four educational institutes and participants included in the study were addressed as Educational Institute 1-4, Teacher 1-8, and Student 1-12. Moreover, participants' responses will be kept confidential and will be stored in a secure database using password protect files to protect the data.

3.9 Challenges of Data Collection for the Dissertation

As stated by Marthoenis (2018), researchers tend to experience difficulties when collecting data and performing research related to a particular topic due to social, economic, and political differences in the study setting. Therefore, for this particular study, the following

were the main challenges faced in the data collection phase of this dissertation: The first challenge that was encountered during the data collection pertained to the complexity of the research issue that was being investigated. The research topic on the efficacy of the EIPEM framework in the UAE educational setting is a complex issue that requires a multi-pronged approach to address it. There was also an issue of the inconsistency associated with the survey data and the interview responses. However, the stated challenge was addressed by using sophisticated qualitative data analysis tools (thematic analysis) and descriptive statistical data analytical tools. Finally, the lack of generalization of the research topic to the respondents was also considered a key challenge. This aspect was fairly addressed by providing each of the 20 respondents with a participant information sheet, which is a form that briefly describes the purpose of the research with the ultimate aim to increase awareness of the research topic among the participants.

4.0 RESULTS AND DATA ANALYSIS

4.1 Introduction

This chapter presents the results of the surveys and interviews, which sought to assess the participants' views on the efficacy of EIPEM in the UAE educational institutes. The findings from the surveys and interviews are presented using both qualitative thematic data analysis and quantitative descriptive statistical data analysis approaches. The thematic data analysis presents broad themes and sub-themes from the transcribed interviews, which provides answers to the four (4) research questions. The broad themes and concepts mainly define the specific support structures, collaborative learnings aspects, and the conducive learning aspects associated with the EIPEM in UAE educational institutions. The quantitative descriptive statistical data analysis presents the descriptive statistics related to the teachers' and students' perception on how EIPEM has created sufficient educational support infrastructure, promoted conducive learning, and facilitated attainment of its goals.

4.2 Data Collection Process and Response Rate

The research data was collected using three (3) data collection instruments, which include the teachers' survey questionnaire, the students' survey questionnaire, and the virtual interview using zoom meetings. The teachers' survey and the students' survey were conducted online using Google forms. Each of the eight (8) teachers and the twelve (12) students were sent a link to access their respective surveys, which they were required to fill and return (send back) using the same Google form platform.

Table 2 presents a summary of the participants' response rate to the three (3) data collection instruments. As evident from Table 2, there was a 100% response rate to the teachers'

survey and a 92% response rate to students' surveys, which were conducted online. This is because all the eight (8) teachers who had indicated their willingness to partake in the study completed the survey. However, only 11 students out of the 12 who had indicated their willingness to participate in the survey completed the online questionnaire. The main reason for the fairly positive response rate in the survey questionnaires is because the survey was conveniently conducted online in the participant's own free time. Besides, both surveys were short answer questions or multiple-choice type of questions, which could take less than 10 minutes on average to complete. However, as evidenced in Table 2, the virtual interview had the lowest response rate for both teachers and students since most of the students and teachers who were invited failed to show up due to their strict schedules. The teachers had a higher response rate to the interview at 25% while only 17% of the sampled students participated in the virtual interview. There was a feeling that many teachers and students had a busy schedule, which discouraged them to participate in the virtual interview.

	Responses for Teachers' Survey	Responses for Students' Survey	Interview Responses
Teachers	8 (100%)	-	2 (25%)
Students	-	11 (92%)	2 (17%)
Total	8 (100%)	11 (92%)	4 (20%)

Table 2: Summary of the Survey and Interview Response Rate (Source: Author).

4.3 Qualitative Thematic Data Analysis

4.3.1 Research Question 1

This subsection of the results and data analysis presents a summary of thematic analysis related to the research question 1, which is restated as follows;

RQ1: To what extent is the EIPEM successful in creating support structures for education institutions in the UAE?

Table 3 presents a summary of the teachers' perception of how EIPEM has created strong educational support structures in the UAE educational institutes. On average, 87.5% of teachers who were surveyed acknowledged that the EIPEM framework has enabled UAE educational institutions to access and utilize digital learning technologies such as e-learning apps and other online educational platforms. The thematic analysis has captured the stated teachers' perception of access to *Learning Technologies*. In addition, 87.5% of the teachers have also noted that since the inception of EIPEM, UAE educational institutes have been able to adopt a virtual learning platform, which allows students to attend distancing learning classes. The stated insight is especially important in the current Covid-19 environment where there is a need for social distancing. The outcome of the thematic analysis has summarized the stated insight as availability and adoption of Virtual Learning. Finally, the teachers who were surveyed also noted that EIPEM has facilitated the adoption of *innovative teaching skills* such as the use of high-tech flipped classrooms and inquiry-based learning. For instance, Teacher 5 from educational institute 3 was quoted as follows; "I have been able to acquire innovative teaching skills since the inception of EIPEM" (Teacher 5, Educational Institute 3).

Questions	Responses	Codes
Improved Teaching Practices	EIPEM has made teaching easier because of the use of innovative learning technologies Teaching has generally improved with the use of innovative digital learning technology	¹ LEARNING TECHNOLOGIES
Preferred Mode of Learning	In our institution, the most preferred mode of learning is the virtual learning platform.	² VIRTUAL LEARNING
Teaching Skills	I have been able to acquire innovative teaching skills since the inception of EIPEM.	³ INNOVATIVE TEACHING SKILLS

Table 3: Teachers' Perceptions on How EIPEM has Created Educational Support Structures (Source: Author).

A summary of the thematic analysis results based on the students' perception of how EIPEM has facilitated the creation of effective educational structures is presented in Table 4. On average, 80% of students acknowledged that their educational institutions have been able to acquire state-of-the-art educational facilities, including books, libraries, and digital classrooms. The stated thematic insight has been classified as *Educational Facilities and Leaning Facilities* based on the thematic analysis. The students also acknowledged that due to the effective educational support structures including the availability of *Study Resources* and *Teaching Resources*, they have managed to record better academic performance as evidenced in their exam grades. For instance, student 9 from educational institute 3 observed that "*My grades have improved substantially under the IPEM because of access to learning materials*" (Student 9, Educational Institute 3).

Questions	Responses	Codes
Motivation to study under EIPEM	I am very motivated to learn in an institution that operates under the IPEM because of the availability of quality educational facilities such as libraries and e-learning resources. I feel motivated to learn in an institution that provides students exceptional learning support and educational infrastructure	¹ EDUCATIONAL FACILITIES ² LEARNING FACILITIES
Efficacy of EIPEM on Exam Grades	EIPEM has improved my academic performance because of the available learning resources, including e-library, computer labs, and study resources. My grades have improved substantially under the IPEM because of access to learning materials and exceptional teaching services from highly motivated teachers.	³ STUDY RESOURCES ⁴ TEACHING SERVICES

Table 4: Students' Perceptions on How EIPEM has Created Educational Support Structures (Source: Author).

4.3.2 Research Question 2

A summary of thematic analysis related to the responses for research question 2, which

is restated as follows is presented in this subsection of the results and data analysis;

RQ2: How has EIPEM been instrumental in promoting collaborative learning in the UAE?

The second research question sought to evaluate the extent to which EIPEM educational system has improved collaborative learning across the UAE educational institutes. Table 5 presents a summary of the thematic analysis based on the teachers' responses to the survey and interview questions associated with the second research question. The insight based on thematic analysis of the survey/interview responses indicates that on average, the majority of teachers (62.5% of teachers) acknowledged that the collaborative learning under EIPEM has contributed

to the lessening of the teaching workload. The implication is that compared to the previous local educational framework, teachers are not placed under strenuous pressure because they can collaborate with their international colleagues in teaching, research, marking exams, and grading. Furthermore, the results from the thematic analysis of the survey/interview responses also indicate that 80% of teachers concur that since the inception of EIPEM, they have been able to acquire strong *leadership skills*. For example, when asked how teachers have benefitted from the exchange program under EIPEM, teacher 8 from educational institute 4 observes that *"I have benefitted from EIPEM exchange program due to the leadership skills and knowledge, which I have gained"* (Teacher 8, Educational Institute 4). Finally, the thematic analysis of the standardized curriculum in their educational institutions as an outcome of collaborative learning in UAE academic institutions. The implication is that UAE academic institutes operating under the EIPEM had to adopt a standardized curriculum to enhance their collaborative learning.

Questions	Responses	Codes
Benefits from the Exchange Programs	Yes. EIPEM has made teaching easier because of the collaboration between instructors, which minimizes the teaching workload.	¹ TEACHING WORKLOAD
	As a teacher, I have benefited from the EIPEM exchange program due to the leadership skills and knowledge, which I have gained.	² LEADERSHIP SKILLS

Benefits of EIPEM in Teaching	EIPEM has raised academic performance, facilitated the use of a consistent academic curriculum	³ STANDARDISED CURRICULUM

Table 5: Teachers' Perceptions on How EIPEM has Improved Collaborative Learning in UAE (Source: Author).

The results in Table 6 depict the students' perspective on how EIPEM has improved collaborative learning in UAE educational institutes. From the students' perspective, the thematic analysis of the survey/interview responses indicates that the collaborative learning among students has been motivated by the desire for *social interaction*. This means that most students consider the idea of collaborative learning as a chance to interact with their colleagues from other international educational institutions operating under the same partnership education model. The insight from the analysis of the students' survey/interview responses also depicts that on average, 90% of the students feel that the motivation to attain intercultural awareness under EIPEM has contributed to improved collaborative learning in UAE educational institutions. The implication is that students' desire to understand or learn different cultures has contributed to the popularity of collaborative learning in UAE educational institutes that adopt the EIPEM. Furthermore, EIPEM has improved collaborative learning among students as part of the initiatives or efforts to produce *quality research*. The thematic analysis insight indicates that students are motivated to collaborate with their international colleagues to produce research work that meets international standards. Finally, the analysis of the survey/interview responses summarised in Table 6 indicates that the drive to gain *cross-disciplinary skills* is an important aspect that has led to an improvement in collaborative learning across the UAE educational institutes. In this respect, when asked about his experience of EIPEM, student 10 from educational institute 4 notes that "The EIPEM has managed to transform students' cross-

Questions	Responses	Codes
Motivation on EIPEM	I feel motivated by the prospects of gaining leadership opportunities and social interaction among peers.	¹ SOCIAL INTERACTION
Experience of EIPEM	EIPEM has enhanced my overall intercultural awareness.	² INTERCULTURAL AWARENESS
	EIPEM has increased students' interaction levels and raised the quality of student research activities.	³ QUALITY RESEARCH
	The IPEM has managed to transform students' cross-disciplinary skills and competencies.	⁴ CROSS-DISCIPLINARY SKILLS

disciplinary skills and competencies" (Student 10, Educational Institute 4).

Table 6: Students' Views on How EIPEM has Improved Collaborative Learning in UAE (Source: Author).

4.3.3 Research Question 3

This subsection of the results and data analysis presents a summary of thematic

analysis related to the responses for research question 3, which is restated as follows;

RQ3: How have the fundamentals of EIPEM facilitated the achievement of its goals in responding to the current global education trends?

The third research question sought to assess the teacher's and students' perception of how the distinct fundamentals of EIPEM have contributed to the attainment of its goals, which include exceptional academic performance, financial stability, and excellent public image as noted by Matsumoto (2019). The findings based on the thematic analysis of the teachers' survey/interview responses to questions that are consistent with the third research question are summarized in Table 7. Firstly, the results show that on average, 75% of the teachers concur that due to its collaborative feature or fundamental aspect, EIPEM has enhanced attainment of the financial stability goals in most UAE educational institutes that operate under the IPEM. For instance, when asked how their institutional performance compares under EIPEM, teacher 1 from educational institute 1 states that "*The IPEM has improved the financial resource capacity of our institution*" (Teacher 1, Educational Institute 1). Besides, teachers also observed that the collaborative learning aspect of EIPEM has also been credited for outstanding *academic performance* in their respective institutions. The implication is that UAE educational institutes that operate under EIPEM have recorded improved academic performance compared to the institutions that operate under the local education model. Finally, the thematic analysis of the teachers' survey/interview responses shows that the availability of support structures (digital educational facilities, learning resources, and skilled/competent teachers) has also raised the *public reputation* of the UAE educational institute that operates under the EIPEM system.

Questions	Responses	Codes
Institutional Performance	The IPEM has improved the financial resource capacity of our institution.	¹ FINANCIAL CAPABILITY
under EIPEM	F irst, the introduction of the IPEM has generally improved students' academic scores.	² ACADEMIC PERFORMANCE
	With the adoption of the IPEM, our school has raised its public ratings and reputation for the provision of quality education.	³ PUBLIC REPUTATION

 Table 7: Teachers' View on How EIPEM Fundamentals Have Enhanced Attainment of its

 Goals (Source: Author).

Table 8 presents a summary of the student's perception of how the distinct fundamentals of EIPEM have enhanced the attainment of its key goals under the IPEM. The results show that

83% of the students feel that studying under EIPEM improves their professional career goals because of the available *career opportunities* for students who graduate from educational institutions that operate under the EIPEM framework. In addition, 80% of students also perceive that access to educational support structures and competent teachers under EIPEM has contributed to the provision of quality education in UAE academic institutions. For instance, student 3 from educational institute 1 states that "I am motivated to learn under EIPEM because of the quality of education" (Student 3, Educational Institute 1). Similarly, there is also concurrence among students that the fundamentals of EIPEM have raised the *academic* performance levels of UAE educational institutions. Academic performance is one of the most important goals for any academic institution regardless of the educational model that it operates (Matsumoto, 2019). The quality education that students acquire under EIPEM has also enhanced their *competitiveness* in the job market. The implication is that students who study in the educational institutions that operate under EIPEM are more likely to obtain internship and employment opportunities compared to their colleagues who attend the local educational institutes. Finally, a critical goal of any education system is to produce graduates who are problem-solvers and critical thinkers (Thomas, 2010). The findings from the thematic analysis of the students' survey/interview responses presented in Table 8 indicate that 75% of students feel that their educational institutes have managed to improve their problemsolving skills under EIPEM. For instance, when asked to state the benefits that the students have gained under EIPEM, student 1 from educational institute 1 notes that "I feel that I am able to compete on the same level with other graduates in the international job market" (Student 1, Educational Institute 1).

Questions	Responses	Codes
Motivation under EIPEM	I am more motivated about the IPEM because of the prospective career opportunities available under the educational system.	¹ CAREER OPPORTUNITIES
	I am motivated to learn under EIPEM because of the quality of education.	² QUALITY OF EDUCATION
Experience of EIPEM	I believe that the IPEM has enhanced my motivation to excel in academic performance.	³ ACADEMIC PERFORMANCE
Benefits of EIPEM	I feel that I am able to compete on the same level with other graduates in the international job market.	⁴ COMPETITIVENESS
	The IPEM has improved my decision-making and problem-solving skills.	⁵ PROBLEM-SOLVING

Table 8: Students' View on How EIPEM Fundamentals Have Enhanced Attainment of Goals (Source: Author).

4.3.4 Research Question 4

This subsection presents a summary of the thematic analysis based on teachers' and students' responses to research question 4, which is restated as follows;

RQ4: In what ways has EIPEM influenced the existence of effective and conducive learning environments in educational institutions in the UAE?

The final research question (RQ4) sought to evaluate the teachers' and students' perceptions on how EIPEM has facilitated the creation of a conducive learning environment in UAE educational institutes. The thematic analysis findings depicted in Table 9 summarises the teachers' survey/interview responses to questions that are consistent with the fourth research question. As previously noted, more than 75% of teachers observe that they are able to operate in a conducive working environment because the collaborative initiatives among teachers have contributed to reduced teaching workload. In addition, 75% of the teachers who were included in the survey/interview also observe that teaching students under EIPEM has been considerably

easier because of the inherent *motivation* of both instructors and students. Furthermore, the majority of teachers (75% of them) also observed that improved teaching practices using innovative or digital learning technologies have also created a conducive learning environment. This is because UAE educational institutes that operate under EIPEM can access digital learning technologies that facilitate teaching in academic institutions. For instance, when asked how EIPEM has made teaching easier, teacher 5 from educational institute 3 observed that "*EIPEM has made teaching easier because of the use of innovative learning technologies*" (Teacher

Questions	Responses	Codes
Benefits of the Exchange Program	EIPEM has made teaching easier because the collaboration among teachers has reduced the teaching workload.	¹ REDUCED TEACHING WORKLOAD
Benefits of EIPEM in Teaching	IPEM has generally improved our motivation to engage in teaching.	² MOTIVATION
Improved Teaching Practices	EIPEM has made teaching easier because of the use of innovative learning technologies	³ LEARNING TECHNOLOGIES

5, Educational Institute 3).

Table 9 : Teachers' View on How EIPEM has Created a Conducive Learning Environment
(Source: Author).

Finally, from the students' perspective, the availability of *educational facilities* such as e-books, libraries, and research materials/resources for educational institutions that operate under EIPEM also appears to have facilitated the creation of a conducive learning environment for learners. Besides, the thematic analysis results in Table 10 shows that the excellent *communication* between parents and students during the end of semester/terms has also created a conducive learning environment in UAE educational institutes. The results of the quantitative descriptive statistical analysis indicate that on average, 88% of the teachers and 75% of students

agree that EIPEM has improved the frequency of communication among teachers, parents, and students. Finally, students' disciplined behavior is also an important aspect that promotes the existence of a conducive learning environment. In this respect, students who were surveyed and, or interviewed indicated that operating under the EIPEM has improved their overall discipline and *students' behavior*, which is associated with excellent academic performance.

Questions	Responses	Codes
Motivations under EIPEM	I am very motivated to learn in an institution that operates under the IPEM because of the availability of quality educational facilities	¹ EDUCATIONAL FACILITIES
Extent of Communication	There is direct communication between teachers and parents on students' progress at the end of the semester and occasionally when the need arises	² COMMUNICATION
Students' Behavior under EIPEM	The IPEM has positively improved students' behavior.	³ STUDENT'S BEHAVIOR

Table 10: Students' View on How EIPEM has Created a Conducive Learning Environment (Source: Author).

4.4 Quantitative Statistical Data Analysis

This final subsection of the results and data analysis chapter presents a summary of the descriptive statistics related to sections of the survey, which required participants to rate their agreement to various statements. These survey questions are those that were coded and could be assigned a numerical rating. The results of the quantitative statistical analysis are mostly presented in the form of descriptive statistics in terms of the mean frequencies using graphical tools/visuals.

4.4.1 Descriptive Statistics

RQ1 Findings: Efficacy of EIPEM in Creation of Educational Support Structures in UAE.

To evaluate the teachers' perception of the efficacy of EIPEM in creating effective educational support structures, the instructors were required to rate the extent to which they agree with the statement in question 2 of the survey. Figure 5 shows that 50% of the teachers were in 'agreement' while 37.5% of them 'strongly agreed' with the statement that EIPEM has created sufficient educational support infrastructures in UAE educational institutes. This means that only less than 12.5% were not sure of the efficacy of EIPEM in the creation of sufficient educational infrastructure in UAE academic institutions that operate under the EIPEM.

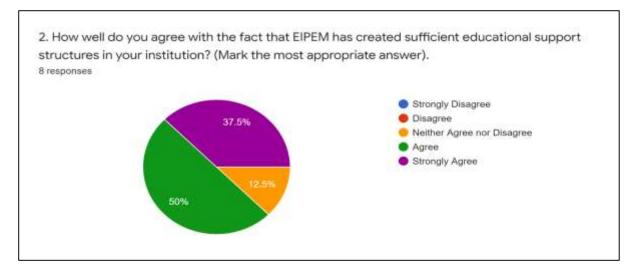


Figure 5: Summary of the Teachers' Survey Responses to Question 2 (Source: Author).

RQ2 Findings: EIPEM and Collaborative Learning in the UAE

To evaluate instructors' perception on the extent to which they concur with the statement that EIPEM has strengthened collaborative learning in UAE academic institutes, the teachers were required to rate the extent to which they agree with the statement in question 12 of the survey instrument. The descriptive analysis results presented in Figure 6 show that there was almost unanimous agreement to the statement. On average, 62.5% of the instructors 'strongly agreed' that the inception of the EIPEM educational system has strengthened collaborative learning and knowledge exchange in UAE educational institutes. In addition, 37.5% of the teachers indicated their agreement to the statement that EIPEM has facilitated the creation of collaborative learning and knowledge sharing among students and teachers in UAE educational institutes.

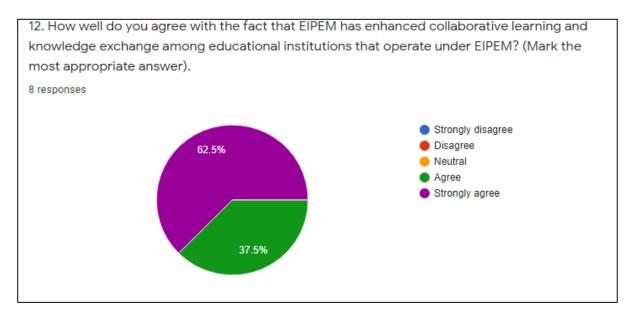


Figure 6: Summary of the Teachers' Survey Responses to Question 12 (Source: Author).

RQ3 Findings: How EIPEM Fundamentals Have Enhanced Attainment of its Goals

An important aspect of EIPEM relates to how its fundamentals have enhanced the attainment of students' all-around performance, including progress in extra-curricular activities. Therefore, to assess teachers' perception of the issue, instructors were asked to state whether or not their school/educational institutes offer support to students' extra-curricular activities. Figure 7 shows that the majority of teachers (87.5%) agreed that their educational institutes

offer support so that students excel in extra-curricular activities while 12.5% of them did not agree with the statement.

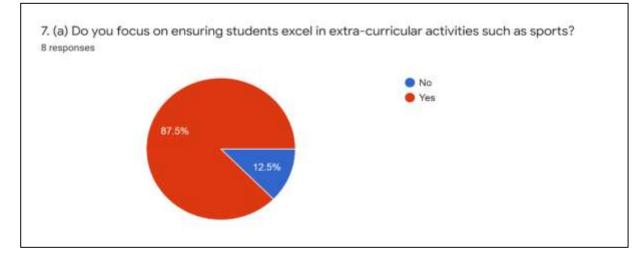


Figure 7: Summary of the Teachers' Survey Responses to Question 7 (Source: Author).

Similarly, the students also seem to support the assertion made by teachers on the extent to which their schools/educational institutes offer support for them to excel in extra-curricular activities. Figure 8 shows that 83.3% of students agreed that their educational institutes support them to excel in extra-curricular activities such as sports. However, 16.7% of students did not agree to the fact that their schools/educational institutes offer support for students to excel in sporting activities.

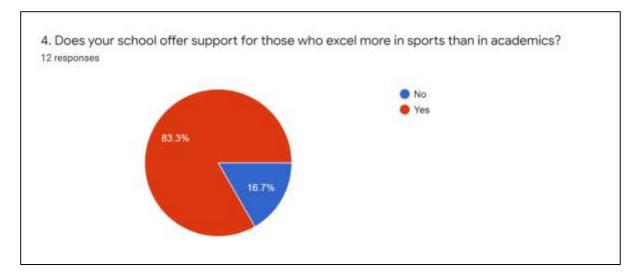


Figure 8: Summary of the Students' Survey Responses to Question 4 (Source: Author).

RQ4 Findings: How EIPEM has Influenced the Existence of Conducive Learning

To assess the instructors' perception of how EIPEM has efficiently contributed to the attainment of a conducive learning environment, teachers were also asked to rate the extent to which they agreed to question 3 in the survey instrument. The descriptive summary in Figure 9 depicts that 37.5% of the teachers felt that EIPEM has 'efficiently' improved the quality of the learning environment in UAE educational institutes. Similarly, 37.5% of the instructors also stated that EIPEM has 'very efficiently' improved the quality of the learning environment in UAE education is that only approximately 25% of the instructors were not sure on the extent to which EIPEM has improved the quality of learning for the UAE educational institutions.

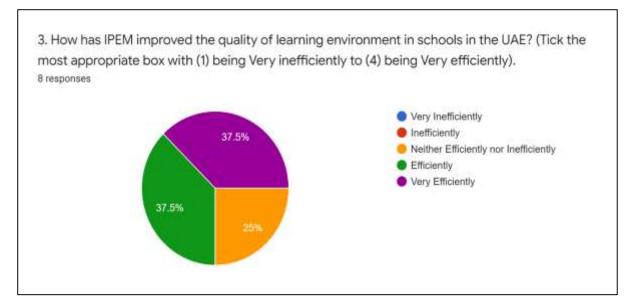


Figure 9: Summary of the Teachers' Survey Responses to Question 3 (Source: Author).

Similarly, to examine the teachers' perception of how EIPEM has been effective in promoting classroom performance, the instructors were required to rate their responses to question 6 in the survey. The results summarized in Figure 10 show that 75% of the teachers either agree (37.5%) or strongly agree (37.5%) with the assertion that EIPEM has raised the students' performance compared to the previous education system. However, only 25% of the teachers did not indicate their agreement with the statement.

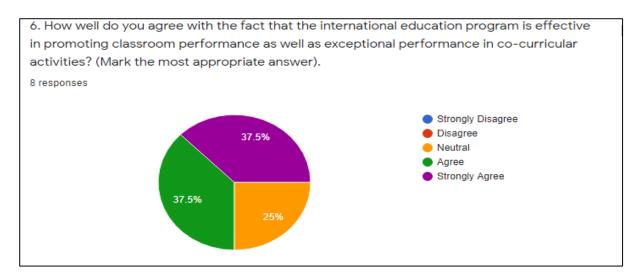


Figure 10: Summary of the Teachers' Survey Responses to Question 6 (Source: Author).

Furthermore, to ascertain, the teachers' perception of the extent to which EIPEM has promoted communication within the UAE educational institutes, the instructors were required to rate the extent to which they communicate with their international partners. The descriptive information in Figure 11 shows that 50% of the instructors indicated that they communicate with their international partners, several times per semester while 37.5% of them noted that they communicate once every year. However, only 12.5% of the teachers acknowledged that they usually communicate with their international partners a few times a year.

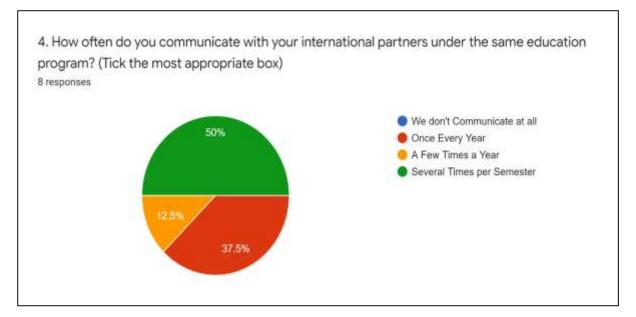


Figure 11: Summary of the Teachers' Survey Responses to Question 4 (Source: Author).

Similarly, when answering the survey question on the extent to which there is an existing theoretical framework that guides learning under EIPEM in UAE educational institutes, Figure 12 indicates that 62.5% of the instructors concurred with the statement. However, 37.5% of the instructors disputed the fact that there is an existing theoretical framework that guides learning under EIPEM in their respective educational institutions.

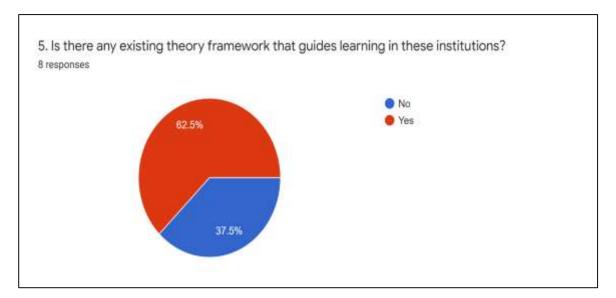


Figure 12: Summary of the Teachers' Survey Responses to Question 5 (Source: Author).

The teachers were also asked to state their perception of the extent to which they communicate regularly with parents to ensure the attainment of high student performance. The descriptive results presented in Figure 13 show that 75% of the instructors indicated that they 'often' communicate with parents on matters concerning students' performance. On the other hand, only 12.5% of the instructors reported that the communication with parents is usually done 'very often' while the remaining 12.5% of teachers stated that they 'seldom' communicate with parents.

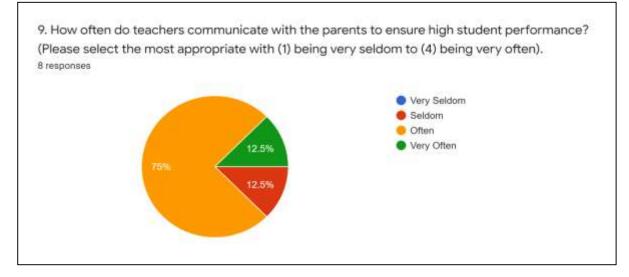


Figure 13: Summary of the Teachers' Survey Responses to Question 9 (Source: Author).

Finally, the instructors were also asked to state the extent to which their educational institutions have adopted the same grading system as other institutions that operate under the EIPEM. The descriptive results in Figure 14 indicate that 87.5% of the teachers concurred with the fact that their educational institutions use the same grading system as other institutions, which operate under the same EIPEM framework. However, 12.5% of the teachers did not agree with the fact that their educational institutions apply the same grading system used by other educational institutions that operate under EIPEM.

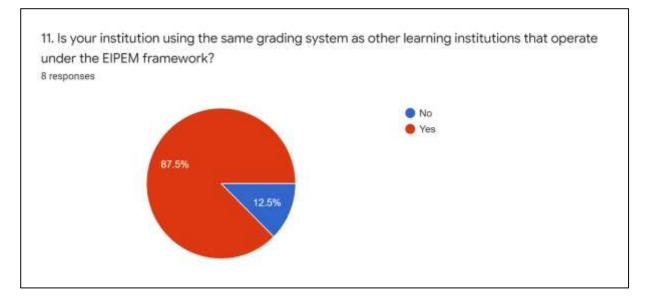


Figure 14: Summary of the Teachers' Survey Responses to Question 11 (Source: Author).

4.5 Summary

The data analysis and results section presents both the outcome of the qualitative thematic analysis and the statistical quantitative descriptive analysis. The findings from the thematic analysis present comprehensive results on how EIPEM has created strong educational support infrastructure, conducive learning, improved collaborative learning, and facilitated attainment of its key goals. The thematic analysis indicates that the adoption of digital learning technologies and investment in modern educational facilities provide evidence that academic institutions operating under EIPEM have been able to acquire essential educational support infrastructure. On the other hand, teachers' and students' motivation, access to learning materials, excellent communication, and collaborative initiatives have facilitated collaborative learning and the attainment of a conducive learning environment. The findings based on the qualitative thematic analysis also indicates that the fundamentals of EIPEM such as support infrastructures and collaborative networks have enabled the UAE educational institutes that

operate under the IPEM to attain financial stability, improve their academic performance, strengthen their public reputation, and ensure that their graduates are able to compete effectively in the global job market. Furthermore, the results of the quantitative analysis show that on average, 100% of teachers (63% strongly agree and 37% agree) concur that EIPEM has improved the educational support infrastructures and collaborative learning in UAE educational institutions. The quantitative analysis findings also indicate that 50% of teachers concur that they usually communicate with their international partners and parents several times per semester. Moreover, 62.5% of teachers noted that there is an existing theoretical framework in their respective schools/educational institutes that guide EIPEM. Finally, both teachers (87.5%) and learners (83.3%) concur that their schools/educational institutes have programs that support students to excel in extra-curricular activities, including sports.

5.0 DISCUSSION

5.1 Introduction

The study examines the efficacy of EIPEM in terms of creating sufficient educational resource infrastructure and improving the quality of education in UAE educational institutes. Specifically, the study was guided by the four (4) research questions, which sought to ascertain the extent to which EIPEM has improved the educational support infrastructure, facilitated collaborative learning, created a conducive learning environment, and strengthened the attainment of its key goals to educational institutes that operate under the EIPEM. This chapter presents a critical discussion on the implication of the qualitative thematic analysis results and the quantitative statistical findings to the four (4) research questions. The discussion is also guided by the insightful reference to prior research findings that capture the present research topic. Finally, the implication of the findings for practice, conclusion, recommendations, and limitations are presented as part of the discussion chapter.

5.2 Discussion of Findings

5.2.1 The Efficacy of EIPEM in the Creation of Educational Support Structures

The discussion in this subsection is based on the first research question, which sought to examine the efficacy of EIPEM in creating sufficient educational infrastructure in the UAE. EIPEM has been noted to spur investment in educational resources, especially among educational institutes that participate in the collaborative educational institution network (Wu et al., 2019). The implication is that students attending educational institutions that have adopted the EIPEM framework are more likely to have access to modern state-of-art learning resources compared to their colleagues attending educational institutions that still adopt the local education model (Matsumoto, 2019). The stated insight is consistent with the findings based on the quantitative statistical analysis where 87.5% of the instructors (those who agreed and strongly agreed) noted that their institutions have benefited from the educational infrastructure and innovative learning resources available under the EIPEM. Besides, the findings from the thematic qualitative analysis also indicate that both teachers and students in the participating educational institutes have been able to access digital learning technologies, and other educational facilities because of their association with the EIPEM. The stated findings are consistent with the insight based on recent research evidence, which suggests that inter-school collaborations have enabled local participating educational institutes to share academic resources, good practices, and innovative learning tools (Stoll, 2015). The insight based on the previous findings by Zuhairi et al. (2019) also suggests that educational institutions that pursue the EIPEM type of education system are usually valued not only because of their educational quality but equally because of their investment in modern learning resources. The stated attractiveness justifies why the majority of the UAE educational institutions that have already adopted the EIPEM system were able to offer digital learning technologies and other educational resources. The findings from the thematic analysis on the infrastructural resource capacity in UAE educational institutes are also similar to the results based on the study by Goe et al. (2020) who contend that in comparison to the local academic institutions, the EIPEM schools have an extensive educational resource and sports facilities. The strong education infrastructural investment among the institutions that have adopted EIPEM is supported by the fact that these educational institutes are financially stable (Armstrong, 2015). Besides, as noted from the thematic analysis findings, the regular communication and collaboration between the UAE EIPEM educational institutes and their international partners have also enabled them to

acquire grants and additional funds for development. According to Arslan (2018), the international partners under EIPEM, including the research organizations that partner with UAE educational institutions usually grant these academic institutions sufficient funds for investment in research and other educational infrastructure.

The general findings from the thematic analysis also depict that most students and teachers who were either surveyed or interviewed acknowledged the fact that inter-educational institutes' collaboration has allowed them to experiment with the virtual mode of learning. The virtual education platform, which promotes distance learning is a novel model of teaching that is considered appropriate in the current Covid-19 pandemic where social distancing is encouraged (Dhawan, 2020). The implication is that the popularity of the virtual learning mode has increased markedly over the past year, which has made educational institutes that operate the EIPEM to be at the forefront of technological innovation (Murshidi, 2020). Therefore, the main insight from the qualitative thematic analysis and quantitative statistical analysis is that students and teachers that operate in educational institutions adopting the EIPEM have access to better educational facilities, digital learning platforms as confirmed by Arslan (2018), and study materials. Inter-school collaboration under EIPEM provides participating educational institutes an opportunity to share learning resources and knowledge, which is very efficient due to the economies of scale (Chapman and Muijis, 2014).

The stated thematic analysis insight also concurs with the findings from a similar study, which was conducted in Saudi Arabia by Aljaber (2018). According to Aljaber (2018), most international educational partners in Saudi Arabia, especially those from advanced nations such as the U.S. and the UK have played an important role in the development of e-learning capacity in the country's institutions of higher education. As evidenced from the thematic analysis of the

students' survey responses, there are long-term plans to introduce e-learning resources in UAE educational institutions that do not have such digital learning resources. For instance, student 2 from educational institute 1 observed that *"there are efforts to integrate an online learning platform to ensure that students* from other countries are able to participate in virtual lessons" (Student 2, Education Institute 1). Therefore, in contrast to the insight from the study by Aljaber (2018), the international partners under EIPEM tend to support the local educational institutions both financially and technologically.

5.2.2 The Efficacy of EIPEM in Promoting Collaborative Learning

This subsection of the discussion links the findings to the second research question of the study, which sought to ascertain how EIPEM has contributed to promoting collaborative learning across the UAE educational institutes. Collaborative learning is a type of information exchange learning in which groups of schools, teachers, and students cooperate to search for a common understanding and solution to specific problems (Al-Aleeli et al., 2018). EIPEM has also been noted to promote collaborative learning among students of participating educational institutions (Stoll, 2015). The descriptive results from the quantitative statistical analysis show that all the instructors were in agreement that the adoption of EIPEM contributed to greater collaboration between teachers. Additionally, from the thematic analysis insight, it is also evident that as a result of the collaborative learning aspect of EIPEM, more teachers have been able to enjoy reduced teaching workload. The teachers can experience minimal pressure at work because the collaborative initiatives with their colleagues in other participating educational institutions allow them to share teaching and assessment tasks (Woods et al., 2013). These findings are also consistent with the outcome based on the study by Woods et al. (2013) who

observe that inter-school collaboration has managed to alleviate burnout on instructors. The implication is that compared to their colleagues working in other institutions of higher education that still operate the local model, instructors in EIPEM educational institutes seem to operate under better working conditions (Armstrong, 2015). The low incidences of teacher burnout among educational institutions that use the EIPEM have mostly enhanced their motivation to teach. According to Woods et al. (2013), teacher motivation is an important aspect in the provision of quality education. Therefore, as teachers operate in a good working condition where there is less physical and mental stress, they are likely to remain motivated, which in turn enables them to provide quality education (Armstrong, 2015).

There is also concrete evidence from the thematic analysis findings that teachers working in the educational institutes that have adopted the EIPEM are in a better position to acquire professional leadership skills. Teachers who were included in the study stated that the EIPEM exchange program has strengthened their leadership skills due to exposure to collaborative learning in work seminars, workshops, and conferences. The report by the UK Department of Education authored by Armstrong (2015) also suggests that inter-school collaboration under any framework provides instructors with opportunities for leadership training and development. Recently, educational stakeholders and policy reforms in the UAE have emphasized the importance of teachers acquiring leadership skills based on the recognition that instructors play an important role in guiding the overall behavior and academic performance of students (Al-Agtash and Khadra, 2019; Goe et al., 2020).

Under the collaborative learning framework of EIPEM, participating educational institutes have also been able to benefit from the consistent use of a standardized curriculum. A standardized curriculum is important in the current dynamic global environment where students

need to align their skills and competencies to international standards to compete effectively in the job market (Al-Agtash and Khadra, 2019). The insight based on the article by Ainscow et al. (2006) indicates that inter-school collaboration provides a perfect opportunity for the development of a standardized curriculum in participating schools. Therefore, the findings that were obtained from the thematic analysis concur with the outcome from the study by Ainscow et al. (2006) who also show that there is a significant association between EIPEM and educational curriculum standardization. This means that efforts to harmonize the national educational curriculum in the UAE can be enhanced by encouraging the local educational institutes to experiment with the available IPEM (Al-Aleeli et al., 2018). The standardized educational curriculum allows students in the country to compete at almost the same level with other international students from the same participating educational institutes.

The thematic analysis findings presented in this study also highlight the fact that from students' perspective, EIPEM has been instrumental in promoting collaborative learning because of the learners' desire to strengthen their social interaction and attain intercultural awareness goals. These results concur with the findings by Whatley et al. (2009) who contend that students attending EIPEM educational institutes are highly motivated to gain intercultural awareness and interact with their colleagues from other participating academic institutions. Besides, the motivation to acquire cross-disciplinary skills through the inquiry-based collaborative learning common under EIPEM has been instrumental in promoting the collaborative knowledge sharing aspect. Finally, there is also considerable evidence from the thematic analysis findings that students' motivational drive to produce quality research work has contributed to the promotion of the collaborative learning aspect. The findings indicate that 60% of the students who were interviewed acknowledged that EIPEM has raised the quality

level of research publications produced by students of participating educational institutions due to the collaborative learning feature under the EIPEM. The implication is that due to the collaborative learning feature of EIPEM, students can share their research knowledge and experience with their colleagues. This is likely to improve the overall quality of published research work from students that study in EIPEM institutions. The motivation to improve students' research skills and knowledge was considered as one of the factors that led to the signing of the educational partnership arrangement between Zayed University and Minerva (Rizvi, 2021). Therefore, it seems that from the students' and the educational institutions' perspectives, the need to produce quality research articles that are consistent with international standards has motivated them to adopt the collaborative learning strategy.

5.2.3 Evaluation on How Fundamentals of EIPEM have Facilitated Attainment of Its Goals

The discussion in this subsection is guided by the third research question, which examines how the fundamentals of EIPEM have contributed to the effective attainment of its educational goals. The key fundamental aspects of EIPEM include the availability of development funds to invest in educational resources, collaborative learning through the exchange program, competent teachers, and a standardized curriculum or grading system (Goe et al., 2020). The findings from the thematic analysis indicate that from the teachers' perspective, the stated fundamental features of EIPEM have allowed participating educational institutions to attain financial stability. Educational institutions that operate under the EIPEM framework are in a better position to attain the financial stability goal, which is important for academic institutions to succeed in the current global economic environment (Armstrong,

2015). The descriptive statistical analysis findings show that 75% of teachers/instructors observed that since the inception of EIPEM in their respective institutions, educational institutes have been able to meet their financial goals due to their excellent public reputation coupled with their exceptional academic performance. These results also match with the insightful findings from the study by Woods et al. (2013). According to Woods et al. (2013), financial efficiency is a key feature of the educational institutions that rely on the inter-school collaboration model. Essentially, the financial stability goal is most often attained by educational institutions that collaborate under the EIPEM system because of their better image, attractiveness, and immense financial support, which they receive from their educational partners (Armstrong, 2015).

Academic performance is also considered as one of the key goals for any academic institution based on the current global educational trends (Armstrong, 2015). Therefore, both teachers and students indicated that their educational institutions have recorded better academic performance compared to the other educational institutes operating the local education model. These results match the insightful findings from a large-scale research study conducted by Chapman and Muijis (2014) who found that students from the EIPEM educational institutes outperformed their peers in terms of academic performance. However, Armstrong (2015) also cautions that existing research evidence on the relationship between the IPEM and academic performance is mixed with other studies showing no significant difference between the two models. For instance, the study by Sammons et al. (2007) presented fairly different findings on how the IPEM influences academic performance. According to Sammons et al. (2007), there is no significant association between the EIPEM educational system and students' academic attainment. However, the variation in the findings could be attributed to the timing differences

and differences in the research setting, which are important factors that determine the reliability of research findings.

Besides, institutional reputational image and goodwill are also considered important assets based on the current education trends across the globe (Parahoo and Tamim, 2015). From the teachers' survey/interview responses, the thematic analysis indicated most teachers agree that the public reputation of their educational institutions has improved as a result of the provision of quality education. The same outcome was also noted based on the study by Parahoo and Tamim (2015) who acknowledge that students' satisfaction levels were mostly influenced by the university's public image or reputation. The findings could be construed to imply that educational institutions that collaborate under EIPEM are likely to have a better public image compared to those that use the local educational system. Parahoo and Tamim (2015) explain that the exceptional public reputation of the educational institutions participating under the EIPEM is based on their outstanding academic performance, investment in better educational resources, and the possibility that graduates from the EIPEM educational institutes can compete effectively with other graduates in the international job market.

On the other hand, from the students' perspective, one of the most important features of a good education system is its ability to strengthen the students' competitiveness and therefore, their career prospects (Armstrong, 2015). The study finds from the thematic analysis insight that more than 90% of the students who were included in the survey or interview cited competitiveness and career prospects as key educational goals/objectives, which have been successfully attained under EIPEM. The students studying in IPEM educational system have also noted an improvement in their problem-solving skills compared to the previous educational model. The empirical research study findings by Stoll (2015) also noted that graduates from educational institutes that collaborate under the EIPEM have better career prospects. Recent research findings also suggest that most UAE students are seeking to enroll in international higher education institutions or those that collaborate under EIPEM to increase their chances of obtaining employment. The implication is that students have developed a perception that their career prospects would be enhanced by studying in schools that offer a standardized education system (Al-Aleeli et al., 2018). The knowledge exchange programs and the internship programs, which are also synonymous with EIPEM explain why students studying in schools that operate the IPEM have a higher likelihood of obtaining employment. The study by Ainscow et al. (2006) also provides evidence that inter-school collaboration has raised the problem-solving skills of the students in participating educational institutes.

5.2.4 The Efficacy of EIPEM in the Creation of a Conducive Learning Environment

This final subsection of the discussion is guided by the findings related to the fourth research question, which examined the efficacy of EIPEM in creating a conducive learning environment in the UAE educational institutes. A conducive learning environment is a classroom situation where there is strong student support, motivation, communication, and cooperation between teachers and learners (Ahmad and Hussain, 2015). The insight based on the thematic analysis of the teachers' and students' survey/interview responses indicate that 75% of instructors and 75% of students were highly motivated to teach and learn respectively under EIPEM. Learning motivation is an important aspect that contributes to the creation of a conducive learning environment where there is a cooperation between teachers and students (Murshidi, 2020). The motivation to learn under EIPEM is inspired by the fact that academic institutions that adopt the EIPEM system have access to better educational facilities and digital

learning technologies (Wu et al., 2019). For instance, in the thematic analysis of the teachers' survey/interview responses, 75% of the instructors noted that teaching has become easier because of access to modern learning technologies that minimize teaching workload from the teachers' perspective. These findings also match the results from the study conducted by Woods et al. (2013) who contends that teachers in IPEM schools operate in a much more conducive classroom environment compared to their colleagues in local schools that do not have IPEM. The research evidence that such teachers have exceptional psychological peace of mind is attributed to the fact that the instructors under IPEM can share their teaching tasks with colleagues from the other participating schools.

Similarly, as noted from the thematic analysis of the teachers' survey/interview responses, approximately 75% of the instructors acknowledged that due to reduced workload under EIPEM, teachers have experienced less burnout compared to their colleagues in non-collaborative educational institutes. Realignments in instructors' workload under EIPEM have created a conducive working environment for teachers, which in turn enhances their motivation to provide quality education to students. Therefore, as evidenced by reduced workload, increased motivation, and availability of educational support infrastructure in academic institutions that pursue the EIPEM system, many teachers feel that there is now a conducive learning environment as a result of the IPEM.

Furthermore, from the students' perspective, the thematic analysis insight also indicates that availability and access to shared educational facilities and learning tools in institutions that have implemented EIPEM have contributed to the creation of a conducive learning environment. There is also evidence from the students' survey/interview responses that EIPEM has created a conducive learning environment because of the extensive communication among parents, teachers, and students. For instance, teacher 1 from educational institute 1 noted that "There is now a direct communication between teachers and parents on students' progress at the end of the semester and when the need arises" (Teacher 1, Educational Institute 1). Communication among parents, teachers, and students is very important because of its contribution towards strengthening students' academic performance (Aljaber, 2018). Besides, educational institutions that collaborate under EIPEM also tend to have stronger communication with their partners; a contextual scenario that creates a conducive environment for learning because of the consistent support that the local schools receive from their international partners.

Finally, students' discipline is also an essential component in an educational environment that has conducive learning. The results show that 60% of students who participated in the survey/interview acknowledged that their overall behavior has improved markedly since the adoption of the EIPEM educational framework. Similarly, teachers also acknowledge that students' behavior and focus have improved mainly due to the regular communication between parents and teachers. Students' behavior is considered crucial in sustaining the bond and cooperation between instructors and learners. Therefore, students' discipline creates a conducive environment for learning, which ultimately ensures that the teachers' focus is on improving the students' academic performance. These findings match the insight from the study by Armstrong (2015) who acknowledges that the students learning under the inter-school collaborative model are in a better position to maintain their discipline and improve their leadership skills due to the existing strong support structures. The fact that students studying in an educational institute that collaborates under EIPEM have access to all the learning resources also inspires them to maintain discipline and focus, which contributes to the creation of a conducive learning environment for teachers and other students.

5.3 Implication of Findings for Practice and Education Policy

The findings have important implications for educational practice and policy. The most important aspect is that UAE schools, including institutions of higher learning, should consider adopting the IPEM. There is considerable evidence from the findings in this study that institutional performance, academic performance, and financial stability tend to improve for participating educational institutions. This means that educational institutes are likely to enhance their public reputational image due to their potential to offer quality education using the collaborative exchange program, which is available for educational institutes that have implemented EIPEM (Armstrong, 2015).

The other important implication of the study findings for teachers specifically is that instructors and headteachers should recommend a transition to the EIPEM for their benefit. The thematic analysis findings identified several benefits under the EIPEM exchange program where teachers can gain. Firstly, it was noted that teachers operating under EIPEM experience less burnout due to reduced workload. Secondly, teachers are able to improve the development of their professional skills and acquire leadership skills through the EIPEM exchange program (Stoll, 2015). Therefore, these findings should motivate teachers to propose such radical changes in their respective educational institutes that have not yet adopted the EIPEM educational framework.

The findings have considerable implications for students, especially in the current competitive global job market. The study outcome is likely to challenge and motivate students to enroll in schools, colleges, and higher learning institutions that are using the EIPEM. The survey by Ahmad and Hussain (2015) indicates that the majority of UAE students have been willing to study abroad to enjoy the benefits of learning under the international education

standards. This student motivation and, or desire to enroll in higher learning institutions that have adopted EIPEM is likely to challenge UAE educational institutes to review their current system of education.

Finally, the findings presented in this study have considerable implications for the education stakeholders and policymakers in the UAE ministry of education. The findings imply that it would make sense for educational policymakers to review their existing education partnership policies in both private and public educational institutions. For instance, the UAE ministry of education should create a policy framework that offers an incentive to educational institutes in the country to find international partners where they would share knowledge and educational resources. The success of the collaborative initiatives between UAE educational institutes and their international partners could act as a springboard towards the standardization of the national education curriculum to align it with international standards.

5.4 Conclusion and Recommendations

The study examines the efficacy of the EIPEM in the UAE educational institutes. The study concludes that there is considerable evidence that is consistent with the alternative hypothesis, which states that EIPEM has a significant influence on the quality of education and dissemination of learning resources in the UAE. This means that there is no strong evidence to support the initial (null) hypothesis for this research. Therefore, in line with the alternative hypothesis, the study acknowledges that the implementation of EIPEM has a significant positive impact on the quality of education and investment of learning resources in the UAE educational institutes.

There is strong evidence to support the alternative hypothesis. Firstly, the results from the thematic analysis highlighted how EIPEM has created educational support infrastructures for participating educational institutes as evidenced by availability and access to digital learning facilities, educational materials, the use of innovative teaching approaches, and virtual learning. Secondly, the study findings also indicate that students' desire for social interaction, intercultural awareness, and cross-disciplinary skills coupled with the reduced workload for teachers are key drivers that have improved collaborative learning under EIPEM. Additionally, this study concludes and acknowledges that the most fundamental features of EIPEM are its standardized curriculum, competent teaching services, available development funding, and collaborative exchange programs. These EIPEM fundamentals have enabled UAE educational institutes that pursue the IPEM to attain better academic performance, financial stability, good public reputation, and enhance students' career prospects.EIPEM has also created a conducive learning environment for both teachers and students. Teachers are able to work with less stress while students have been able to record better academic grades because of the collaboration among learners, self-discipline, and communication among parents and teachers.

Therefore, the study recommends that EIPEM is a useful and efficacious education model that should be implemented by all educational institutions in the UAE. The suggestion is that UAE educational institutes that do not have inter-school collaboration should seek international partnerships to enhance their institutional performance, improve students' academic grades, and attain a strong public reputation. The other recommendation is that the UAE ministry of education should formulate supporting policies that encourage the implementation of the EIPEM in the UAE schools. For instance, the ministry could take the initiative to find international partners for some of the public institutions of higher education. In this respect, recently Zayed university signed a groundbreaking international partnership model with Minerva project to improve its students' problem-solving and creative thinking skills (Rizvi, 2021).

5.5 Limitations and Suggestions for Future Research

There are some limitations associated with the findings from this mixed research design study. First, the representativeness of the findings might be slightly affected because the survey and interviews were conducted using a small number of participants (n = 19). However, this limitation was addressed by incorporating both surveys and interview responses to improve data triangulation (Creswell, 2014). Besides, the generalisability of the findings might only be restricted to UAE educational institutions given that only four (4) educational institutes participated in the study. On the other hand, the study did not consider how EIPEM could contribute to national curriculum harmonization and the factors that determine its uptake in UAE academic institutes. Therefore, the suggestion for prospective studies is that future research should incorporate a large sample that includes teachers, parents, and students to obtain a multi-perspective view on the benefits of EIPEM. Furthermore, this research should also be replicated in other country contexts/settings to ascertain whether similar results can be obtained. Finally, future studies can also explore how EIPEM could facilitate the harmonization of the national education curriculum in the UAE.

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APPENDICES

Exhibit 1:	: Ethics	Consent	Form	for th	ne Tea	chers and	l Stu	dents	Questio	nnaire
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Ethics Consent Form: Teachers and
Students Questionnaire

This ethics form is intended to take your consent to participate in the survey. The aim of the survey (questionnaire) is to gather your perception on the efficacy of the evolving international partnership education model in UAE schools. Your response to the questionnaire will remain confidential and that each survey form will be anonymous with no names of the respondents. The responses to the survey will only be used and analyzed for the research purpose.

Please indicate your agreement to the following statements (*Required)

I understand that my participation is voluntary*
I understand that my responses will be kept strictly confidential*
I Disagree

l understand that my responses will be used by the researcher for the research purpose only*
I Agree
I Disagree
l agree to take part in the research study*
O I Agree
O I Disagree

Exhibit 2: EIPEM Questionnaire Targeted to Teachers

The Evolving International Partnership Education Model (EIPEM) Questionnaire: Questions to Teachers

This questionnaire contains quantitative and qualitative questions directed to the target population. The questionnaire will help to collect information regarding the efficacy and experiences of the international partnership education model (IPEM) from the teaching staffs in the selected institutions. Disclaimer: The information provided in this questionnaire does not contain any personal information that might be subject to identity theft or bias during results analysis.

1. Has the EIPEM made teaching easier? If yes, in what way?

Long answer text

2. How well do you agree with the fact that EIPEM has created sufficient educational support structures in your institution? (Mark the most appropriate answer).
Strongly Disagree
O Disagree
Neither Agree nor Disagree
O Agree
Strongly Agree
3. How has IPEM improved the quality of learning environment in schools in the UAE? (Tick the most appropriate box with (1) being Very inefficiently to (4) being Very efficiently).
Very Inefficiently
Inefficiently
O Neither Efficiently nor Inefficiently
C Efficiently
O Very Efficiently
4. How often do you communicate with your international partners under the same education program? (Tick the most appropriate box)
O We don't Communicate at all
Once Every Year
🔿 A Few Times a Year
O Several Times per Semester

5. Is there any existing theory framework that guides learning in these institutions?
O No
⊖ Yes
6. How well do you agree with the fact that the international education program is effective in promoting classroom performance as well as exceptional performance in co-curricular activities?
(Mark the most appropriate answer).
O Strongly Disagree
O Disagree
O Neutral
O Agree
Strongly Agree
7. (a) Do you focus on ensuring students excel in extra-curricular activities such as sports?
○ No
⊖ Yes
7 (b) If the answer above is Yes, Please explain briefly how?
Long answer text
8. How has the evolving international partnership education model improved institutional performance compared to when the institution operated under the local program only?
Long answer text

9. How often do teachers communicate with the parents to ensure high student performance? (Please select the most appropriate with (1) being very seldom to (4) being very often).
O Very Seldom
🔘 Seldom
Often
O Very Often
10. In what ways have you benefited from the exchange programs with your international partners under the same education program?
Long answer text
11. Is your institution using the same grading system as other learning institutions that operate under
the EIPEM framework?
() No
○ Yes
12. How well do you agree with the fact that EIPEM has enhanced collaborative learning and knowledge exchange among educational institutions that operate under EIPEM? (Mark the most appropriate answer).
Strongly disagree
O Disagree
O Neutral
○ Agree

The Evolving International Partnership Education Model (EIPEM) Questionnaire: Questions to Students

This questionnaire contains quantitative and qualitative questions directed to the target population. The questionnaire will help to collect information regarding the efficacy and experiences of the international partnership education model (IPEM) from students in the selected institutions.

Disclaimer: The information provided in this questionnaire does not contain any personal information that might be subject to identity theft or bias during results analysis.

1. As a student, how do you feel motivated about the international partnership education model in your school?

Your answer

2. How have you been able to balance between studies and extra-curricular activities?

Your answer

3. What is your experience of the international partnership education model in
your school?

Your answer

4. Does your school offer support for those who excel more in sports than in academics?

No

O Yes

5. How has the International Partnership Education Model impacted your examinations grades?

Your answer

6. How has the International Partnership Education Model affected your future career prospects?

Your answer

Exhibit 4: Ethics Consent Form for the Teachers and Students Interview

This ethics form is intended to take your consent to participate in the interview, which is under the moderation of the researcher. The purpose of the interview is to gather your perception on the efficacy of the evolving international partnership education model in UAE
schools. Your response to the interview questions will remain confidential and that each transcribed interview form will be anonymous with no names of the respondents. The researcher will only use and analyze the data for the research purpose. Please indicate your agreement to the following statements (*Required)
I understand that my participation is voluntary*
I Agree
I Disagree
I understand that my responses will be kept strictly confidential*
I Agree
I Disagree
I understand that my responses will be used by the researcher for the research purpose only*
I Agree
I Disagree

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l agree to take part in the research study*	
O I Agree	
O I Disagree	

Exhibit 5: EIPEM Interview Questions

The Evolving International Partnership Education Model (EIPEM) Interview Question

This form contains interview questions for teachers and students selected from the educational institutions that operate evolving international partnership education model (EIPEM).

1. How has the international partnership education model been beneficial to you?

Your answer

2. Has the EIPEM improved parent involvement in school performance of their children?

Your answer

3. Is there a direct link between parents, teachers, and children?

4. Is there direct communication between teachers and parents for each student?

Your answer

5. Is the communication between teachers and parents mandatory or optional?

Your answer

6. Does the international partnership education model practiced here influence the students' behaviors? If yes, in what way?

Your answer

7. What is the preferred mode of learning practiced in this institution, to ensure that students of all levels and backgrounds are covered?

Your answer

8. Is there a grading system that helps to compare the performance of students in this school with other institutions under the same program somewhere else?

Your answer

Exhibit 6: Transcription of Teachers' Survey Qualitative Responses

Q1. Has the EIPEM made teaching easier? If yes, in what way?

Teacher 1: "Yes. EIPEM has made teaching easier because of the collaboration between instructors, which minimizes the teaching workload".

Teacher 2: "Yeah somehow. IPEM has generally improved our motivation to engage in teaching and undertake professional dialogue amongst ourselves as instructors."

Teacher 3: "Yes. EIPEM has made it easier for us as instructors to teach because of the consistent collaborative and innovative efforts among teachers operating within the same international school system."

Teacher 4: "Yes. As teachers, we feel that the students are more motivated to learn under the IPEM."

Teacher 5: "Yes. EIPEM has made teaching easier because of the use of innovative learning technologies coupled with improvement in the learning-oriented culture among students".

Teacher 6: "Not really for me because of the complexities in terms of the need to integrate a single international standardized teaching framework in a country such as UAE."

Teacher 7: "Yes. Teaching has generally improved with the use of innovative digital learning technology and subsequent improvement in students' motivation to learn".
Teacher 8: "Yes. EIPEM has made teaching easier because of its focus on collaborative learning among participating institutions".

Q7. Do you focus on ensuring students excel in extra-curricular activities such as sports? If the answer above is Yes, please explain briefly how?

Teacher 1: "The school usually organizes inter-school sports games competitions".

Teacher 2: "We usually have a formal physical education session and encourage each student to take part in a sporting activity."

Teacher 3: "Our school encourages students to take part in different sports activities, including football, basketball, rugby, and athletics among others".

Teacher 4: "So far, we have not yet developed a formal physical education program although students are usually encouraged to participate in sporting activities".

Teacher 5: "Our school has developed state-of-the-art sporting facilities where students are allowed to engage in different sporting activities, especially on weekends".

Teacher 6: "The school has recruited professional physical education teachers to support and motivate students to engage in sports activities".

Teacher 7: "Part of students' assessment is to excel in both academic and sporting activities although the former is given greater priority".

Teacher 8: "Students are encouraged to engage in sporting activities to represent the institution in inter-school games".

Q8. How has the EIPEM improved institutional performance compared to when the institution operated under the local program only?

Teacher 1: "The IPEM has improved the financial resource capacity of our institution and enhanced its overall public image".

Teacher 2: "The IPEM has mainly improved our financial performance, raised the number of student enrollment and facilitated attainment of a learning-oriented institutional culture".

Teacher 3: "First, the introduction of the IPEM has generally improved students' academic scores. Secondly, the IPEM has also contributed to an improvement in financial management efficiency in our institution".

Teacher 4: "EIPEM has generally raised our public image and reputation. In addition, there has been a marked improvement in terms of academic performance and staff professional development".

Teacher 5: "First, I would note the improvement in academic performance. Secondly, institutional reputation has improved because of the consistent use of an international standardized education framework".

Teacher 6: "The IPEM has generally improved our institutional academic performance level. The program has also made us have a strong financial capability".

Teacher 7: "Before EIPEM, our schools' reputation was not so high. However, with the adoption of the EIPEM, our school has raised its public ratings and reputation for the

provision of quality education. The institutional academic performance has also improved".

Teacher 8: "EIPEM has raised academic performance, facilitated the use of a consistent academic curriculum and enhanced students' problem-solving skills".

Q10. In what ways have you benefited from the exchange programs with your international partners under the same education program?

Teacher 1: "We have been able to standardize the teaching curriculum and attain exceptional professional growth and development".

Teacher 2: "First, the student academic performance levels have improved markedly while as teachers, there has been a considerable improvement in terms of our career prospects and growth".

Teacher 3: "The instructors have been able to develop their professional knowledge, reduce burnout, and attained greater teaching motivation".

Teacher 4: "I have benefited from learning different languages and gained innovative teaching skills. As a result of the EIPEM framework, I have also developed considerable awareness of multi-faceted approaches to learning".

Teacher 5: "I have been able to acquire innovative teaching skills coupled with professional development and improvement in career prospects".

Teacher 6: "I would acknowledge that teachers have generally acquired exceptional knowledge in teaching and motivation to engage in constructive professional dialogue with colleagues".

Teacher 7: "As teachers, we have gained multi-dimensional skills in teaching. Besides, due to the collaboration among teachers, the level of fatigue and burnout has decreased significantly".

Teacher 8: "As a teacher, I have benefited from the EIPEM exchange program due to the leadership skills and knowledge, which I have gained".

Exhibit 7: Transcription of Students' Survey Responses (No Response from Student 12)

Q1. As a student, how do you feel motivated about the EIPEM model in your school?

Student 1: "I am more motivated about the IPEM because of the prospective career opportunities available under the educational system".

Student 2: "I feel motivated that I can outperform my peers in other schools that have not yet embraced the EIPEM".

Student 3: "I am motivated to learn under EIPEM because of the quality of education and standardized nature of the education curriculum".

Student 4: "I am very motivated to learn in an institution that operates under the IPEM because of availability of quality educational facilities such as libraries and e-learning resources".

Student 5: "I feel motivated under the EIPEM because of the greater urge for education as a result of the available international offers".

Student 6: "I feel motivated by the competency-based curriculum, which is used under the IPEM. The competency-based curriculum model is associated with quality of education and provides substantial competitiveness to students".

Student 7: "I feel motivated by the prospects of gaining leadership opportunities and social interaction among peers under the IPEM".

Student 8: "I am motivated to learn under the IPEM because of the quality of education using a standardized education curriculum".

Student 9: "I am motivated to learn under the IPEM because of the opportunities to acquire quality knowledge and skills similar to what other international students are experiencing".

Student 10: "I am motivated to attain the same education standard with other international students operating under the same model".

Student 11: "I feel motivated because of the desire to learn under the same competencybased curriculum as my international peers. I also feel motivated to learn in an institution that provides students exceptional learning support and educational infrastructure".

Q2. How have you been able to balance between studies and extra-curricular activities?

Student 1: "I set aside weekdays for academic activities and engage in extra-curricular activities during weekends and occasionally in the evenings".

Student 2: "It has been difficult but I always try to keep a strict schedule on academic activities. I mostly engage in sporting activities during the school allocated time".

Student 3: "I mostly focus on the academic part and less on sporting or extra-curricular activities".

Student 4: No Response.

Student 5: "Generally, I am not so much into sports, therefore, my focus has solely been on academics".

Student 6: "I normally allocate more time for studies during the weekdays and sporting activities either in the evening or weekends".

Student 7: "I usually dedicate roughly 20% of my time on sports with the rest focused on academic matters".

Student 8: "I usually take part in extra-curricular activities once a week. However, most of my time is spent on academic matters".

Student 9: "I study during the day and engage in some extra-curricular activities during evenings and sometimes during weekends".

Student 10: "I give priority to studies during the day and work on extra-curricular activities after class during the evenings. I also undertake sporting and other extra-curricular activities after I am done with my studies, most often during the evenings".

Student 11: "I am not so much into sports but I usually try to maintain a smooth flow of my academic schedule".

Q3. What is your experience of the EIPEM in your school?

Student 1: "I believe that the EIPEM has enhanced our motivation to excel in academic performance".

Student 2: "EIPEM has enhanced my overall intercultural awareness and improved my social interaction with students from other countries".

Student 3: "EIPEM has increased students' interaction levels and raised the quality of student research activities".

Student 4: No Response

Student 5: "The EIPEM has improved my decision-making and problem-solving skills".

Student 6: "My experience is that EIPEM has raised the quality of learning and problemsolving skills in students".

Student 7: "The EIPEM has enhanced our schools' reputation and allowed students to gain strong intercultural awareness knowledge".

Student 8: "The model has raised our institution's public image and allowed knowledge/skills sharing among students in the participating schools".

Student 9: "My experience is that the EIPEM has increased students' leadership skills and problem-solving skills".

Student 10: "The EIPEM has managed to transform students' cross-disciplinary skills and competencies. In addition, it has improved students' problem-solving skills, especially when students interact and share knowledge with colleagues".

Student 11: "It has enabled me to interact with other students and share knowledge/skills with students from other academic institutions".

Q5. How has the efficacy of IPEM affected your examinations grades?

Student 1: "My academic grades have improved significantly since the shift towards the IPEM".

Student 2: "The IPEM has improved my average academic grades compared to the previous periods".

Student 3: No Response

Student 4: "EIPEM has improved my academic grades because of the motivated teaching staff, availability of learning resources, and the motivation to succeed".

Student 5: "As a result of the motivational aspects, the IPEM has contributed to my improved academic grades compared to previously when we operated the local model".

Student 6: "The IPEM has improved my academic grades because, under the program, I am more motivated to compete at the same level with other international students".

Student 7: "It has improved my academic performance because of the available learning resources, including e-library, computer labs, and study resources".

Student 8: "I can say EIPEM has improved my academic grades because of the exceptional instructors who collaborate with their international partners". Besides, my

grades improved after the adoption of EIPEM, which provides standardized assessments under the international grading system".

Student 9: "My grades have improved substantially under the IPEM because of access to learning materials and exceptional teaching services from highly motivated teachers".

Student 10: "Since the switch to EIPEM, my academic grades have improved markedly mainly because of the quality learning experience".

Student 11: "Due to the greater quality education, the IPEM has raised my academic scores and performance".

Q6. How has IPEM affected your future career prospects?

Student 1: "I feel that I am able to compete on the same level with other graduates in the international job market".

Student 2: No Response.

Student 3: "Definitely, the IPEM has improved my career prospects because of the feeling that I can compete with other students who have passed through the international standardized education model".

Student 4: "It has improved my career expectations because I am more proficient in English and feel confident to compete with others due to my exceptional problem-solving skills".

Student 5: "I believe that the IPEM has raised my career prospects because of my exceptional knowledge in different areas and the fact that I study in an institution with efficient learning practices".

Student 6: "It has raised my career prospects because as students we are likely to graduate under the same system of education and therefore, compete on an equal footing".

Student 7: "It has strengthened my career prospects. The main reason is that under EIPEM, students are able to secure internship opportunities that enhance their employability prospects".

Student 8: "EIPEM has increased my career prospects because I am more knowledgeable and skilled under the competency-based curriculum, which focuses on harnessing each students' technical skills/talents".

Student 9: "I perceive my chances of obtaining employment as high because of the exposure to quality education and ability to compete with my international student peers. My perception is that students studying under the IPEM are in a better position to compete with their peers in the global job market".

Student 10: "The IPEM has strengthened my future career prospects due to the inculcation of cross-disciplinary skills and intercultural awareness, which are important in a fast-changing global job market".

Student 11: "I feel that my chances of obtaining internship and employment are higher due to synchronized educational curriculum standards".

Exhibit 8: Verbatim Transcription of Teachers' and Students' Interview Responses

Q1. How has the IPEM been beneficial to you?

Teacher 1: "Well. I can say that the IPEM has enhanced my professional career development as a teacher".

Teacher 2: "As teachers, the IPEM, which emphasizes collaborative initiatives has realigned our workloads and therefore minimized exposure to burnout among instructors".

Student 1: "As a student, the IPEM has been beneficial in terms of my academic grades' improvement. Also, the model has provided an opportunity for me to share knowledge and skills with students from across the globe".

Student 2: "IPEM has enhanced my perceived career growth prospects because currently, we are subjected to a cross-disciplinary learning that is most suited to the dynamic global job market".

Q2. Has the EIPEM improved parent involvement in the school performance of their children?

Teacher 1: "Yes. Personally, I feel that due to parents and teachers' motivation in a learning-oriented organizational culture, more parents are being involved in ensuring that their children attain good academic grades".

Teacher 2: "Not really according to me. Although, we've seen many parents having an interest in their children's performance under the competency-based education model".

Student 1: "Yes. I feel that my parents are now becoming more interested in my academic performance and how the program would enhance my career prospects".

Student 2: "Yes. My parents have become so interested in how we operate compared to other students studying under the local model. For instance, recently, I was surprised to see my mum asking for my academic transcripts from the lecturer".

Q3. Is there a direct link between parents, teachers, and children?

Teacher 1: "Yes. As a result of the motivational aspect of EIPEM, the main link between parents, teachers, and schools is academic performance".

Teacher 2: "Yes. The main direct link between parents, teachers, and children in schools that adopt the IPEM is to improve the academic success of students and prepare them for the fast-changing global job market".

Student 1: "Yes. School performance in national exams and its reputation mainly creates a link between parents, teachers, and children. Students' performance is usually the main agenda in 'parents-teachers' meetings".

Student 2: "Yes. Parents, teachers, and students alike are all interested in the school academic performance and students' behavior".

Q4. Is there direct communication between teachers and parents for each student? Teacher 1: "Yes. There is direct communication between teachers and parents on students'

progress at the end of the semester and occasionally when the need arises".

Teacher 2: "Yes. This mostly occurs during the end of the semester as well as during the annual parents-teachers meeting".

Student 1: "Occasionally, teachers and parents communicate via phone and email correspondence. For instance, my mum has the personal phone number of my class teacher, which means that they regularly communicate with each other".

Student 2: "No. Teachers and parents only communicate during open meeting forums".

Q5. Is communication between teachers and parents mandatory or optional?

Teacher 1: "I can say that in our institution, the communication between teachers and parents is optional although we've seen a trend where parents are being actively engaged with teachers and the school leadership".

Teacher 2: "The communication is optional, although the school encourages parents to communicate with their children's class teacher/instructor".

Student 1: "The communication is optional but each parent has to attend the end of semester parents-teachers formal meeting".

Student 2: "Yes. Parents are required to attend all school meetings, failure to which their children will be sent home to come with parents".

Q6. Does the IPEM practiced here influence the students' behaviors? If yes, in what way?

Teacher 1: "Yes. The IPEM has positively influenced students' leadership behaviors and accountability".

Teacher 2: "Yes. The IPEM has positively improved students' behavior. Students are now more motivated to learn and compete with their international colleagues. Moreover, I can say that the model has enhanced the students' social interaction level and made them more responsible".

Student 1: "Yes. Personally, I feel that the IPEM has improved my social esteem, confidence and enhanced my leadership skills".

Student 2: "Yes. The IPEM practiced in this institution has changed how students interact with each other's as well as how students collaborate and engage in virtual knowledge-sharing meetings with their colleagues in other schools".

Q7. What is the preferred mode of learning practiced in this institution, to ensure that students of all levels and backgrounds are covered?

Teacher 1: "Well, in our institution, the most preferred mode of learning is the virtual learning platform".

Teacher 2: "In our school, we usually adopt a hybrid mode of learning, especially in this Covid-19 era. What I mean is that some sections of the students are required to attend face-to-face (in-person) learning while others participate in virtual (online) e-learning sessions".

Student 1: "At the moment due to the current pandemic, the school operates the virtual learning platform, which I believe is all-inclusive because students can learn from wherever they are".

Student 2: "We still use the face-to-face mode of learning. However, there are efforts to integrate an online learning platform to ensure that students from other countries are able to participate in virtual lessons".

Q8. Is there a grading system that helps to compare the performance of students in this school with other institutions under the same program somewhere else?

Teacher 1: "Yes. We normally use the international conversion grading system, which facilitates effective comparison of student performance".

Teacher 2: "Yes. Our institution has mostly adopted the international grading system, which is used by our overseas education partners".

Student 1: "Well. There is no formal standardized grading system that I know, which is applicable in this academic institution".

Student 2: "Yes. Currently, we operate the international grading system, which is used by our international education partners".

Participant	Responses in Text	Codes	Themes
Teacher 1	Yes. EIPEM has made teaching	Collaboration	Reduced
	easier because of the collaboration	between instructors,	workload
	between instructors, which	which minimizes	
	minimizes the teaching workload.	the teaching	
		workload.	
Teacher 2	Yes, somehow. IPEM has generally	Improved our	Motivation
	improved our motivation to engage	motivation to	
	in teaching and undertake	engage in teaching	
	professional dialogue amongst		
	ourselves as instructors		

Exhibit 9: Thematic Analysis of Teachers' Qualitative Survey Responses

Teacher 1	The IPEM has improved the	Improved the	Financial
	financial resource capacity of our	financial resource	capability
	institution and enhanced its overall	capacity	
	public image		
Teacher 3	First, the introduction of the IPEM	Improved students'	Academic
	has generally improved students'	academic scores.	performance
	academic scores. Secondly, the		
	IPEM has also contributed to an		
	improvement in financial		
	management efficiency in our		
	institution		
Teacher 4	EIPEM has generally raised our	Improvement in	Professional
	public image and reputation. In	staff professional	development
	addition, there has been a marked	development	
	improvement in terms of academic		
	performance and staff professional		
	development.		
Teacher 7	Before EIPEM, our schools'	Our school has	Improved
	reputation was not so high. However,	raised its public	Public
	with the adoption of the IPEM, our	ratings and	Reputation
	school has raised its public ratings	reputation for the	
	and reputation for the provision of	provision of quality	
	quality education. The institutional	education	
	academic performance has also		
	improved.		
	I	I	

Teacher 8	EIPEM has raised academic	Facilitated the use	Standardized
	performance, facilitated the use of a	of a consistent	curriculum
	consistent academic curriculum, and	academic	
	enhanced students' problem-solving	curriculum.	
	skills		
Teacher 5	I have been able to acquire	I have been able to	Innovative
	innovative teaching skills coupled	acquire innovative	teaching skills
	with professional development and	teaching skills.	
	improvement in career prospects		
Teacher 8	As a teacher, I have benefited from	I have gained	Leadership
	the EIPEM exchange program due to	leadership skills	skills
	the leadership skills and knowledge,	and knowledge.	
	which I have gained.		

Exhibit 10: Thematic Analysis of Students' Qualitative Survey Responses

Participant	Responses in Text	Codes	Themes
Student 1	I am more motivated about the IPEM	Motivated by the	Career
	because of the prospective career	prospective career	opportunities
	opportunities available under the	opportunities	
	IPEM.		
Student 3	I am motivated to learn under EIPEM	I am motivated to	Quality of
	because of the quality of education	learn because of the	education
	and standardized nature of the	quality of education	
	education curriculum		
Student 4	I am very motivated to learn in an	Availability of	Educational
	institution that operates under the	quality educational	facilities
	IPEM because of the availability of	facilities such as	
	quality educational facilities such as	libraries and e-	
	libraries and e-learning resources.	learning resources	

Student 7	I feel motivated by the prospects of	Prospects of	Student
	gaining leadership opportunities and	gaining leadership	interactions
	social interaction among peers under	opportunities and	
	the IPEM.	social interaction	
Student 1	I believe that the IPEM has enhanced	Motivation to excel	Academic
	our motivation to excel in academic	in academic	performance
	performance.	performance	
Student 2	EIPEM has enhanced my overall	Enhanced my	Inter-cultural
	intercultural awareness and improved	overall intercultural	awareness
	my social interaction with students	awareness	
	from other countries		
Student 3	EIPEM has increased students'	Raised the quality	Quality research
	interaction levels and raised the	of student research	
	quality of student research activities.	activities	
Student 5	The IPEM has improved my	Improved decision-	Problem-solving
	decision-making and problem-	making and	
	solving skills.	problem-solving	
		skills.	
Student 8	The model has raised our institution's	Allowed	Knowledge
	public image and allowed	knowledge/skills	sharing
	knowledge/skills sharing among	sharing among	
	students in the participating schools	students	
Student 9	My experience is that the IPEM has	Increased students'	Leadership
	increased students' leadership skills	leadership skills	skills
	and problem-solving skills		
Student 10	The IPEM has managed to transform	Managed to	Cross-
	students' cross-disciplinary skills and	transform students'	disciplinary
	competencies	cross-disciplinary	skills
		skills.	

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Student 1	I feel that I am able to compete on	Compete with other	Competitiveness
	the same level with other graduates	graduates in the	
	in the international job market	international job	
		market	
Student 4	It has improved my career	Improved my career	Career
	expectations because I am more	expectations.	prospects
	proficient in English and feel		
	confident to compete with others due		
	to my exceptional problem-solving		
	skills		
Student 7	It has strengthened my career	Under EIPEM,	Internship
	prospects. The main reason is that	students are able to	opportunities
	under EIPEM, students are able to	secure internship	
	secure internship opportunities that	opportunities	
	enhance their employability		
	prospects.		
		1	