

Survey on Long Life Learning TVET Course Options among Students of Politeknik Kuala Terengganu

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Abstract

This survey involves student's options and willingness to participate in types of lifelong learning through Technical and Vocational Education and Training (TVET) courses. As the demand for adaptable and skilled labor increases in the modern workforce, TVET has emerged as a critical pathway for continuous skill development. The study aims to figure out student's points of view of lifelong learning opportunities, their engagement with TVET programs, and the factors influencing their interest or disinterest in such courses. Data was collected through structured questionnaires distributed among students of Politeknik Kuala Terengganu from various educational backgrounds. The findings provide insights into the role of TVET in promoting a culture of lifelong learning and offer recommendations for enhancing its accessibility and relevance to youth. This study contributes to the understanding of how educational institutions and policymakers can better support lifelong learning initiatives in the TVET sector.

Keywords: *Lifelong Learning, TVET, Students, Politeknik Kuala Terengganu*

1.0 Introduction

TVET stands for Technical and Vocational Education and Training [1] TVET plays a key role in economic development by improving employability and productivity, especially in developing and emerging economies [1]. Lifelong learning can be conceptualized as a cartesian plane, where vertical axis represents the progression of learning across the lifespan, from early childhood through to old age and horizontal axis encompasses the diverse contexts in which learning occurs, including formal education systems for example schools and universities and informal learning environments such as workplaces and community [2]. This model illustrates that learning is both a continuous process throughout life and occurs across various settings, reflecting the multifaceted nature of lifelong learning [2]. Technical and vocational education plays a pivotal role in preparing individuals for the workforce by equipping them with both technical and soft skills essential for success in various industries [3]. To effectively meet the evolving demands of the commercial and industrial sectors, technical and vocational institutions must prioritize the development of comprehensive skill sets in their students. By fostering a curriculum that integrates practical training with the cultivation of interpersonal abilities, critical thinking, and adaptability, these institutions of polytechnics can ensure that graduates are not only proficient in their specific trades but also possess the versatile competencies sought by employers. This holistic approach enhances students' readiness to navigate the complexities of the modern job market and contributes to their long-term career success. [3]

2.0 Literature Review

In today's rapidly changing and competitive world, equipping students with the skills necessary to advance their careers is more crucial than ever. Technical and vocational education and training (TVET) serves as a vital pathway to achieving this goal, as it provides targeted training that aligns with industry demands. By focusing on both technical expertise and essential soft skills, TVET programs ensure that graduates are not only proficient in their chosen fields but also adaptable and ready to meet the challenges of the modern workforce [3]. TVET's policy is to provide equity, access and give quality education to the younger generations who are interested in the technical and vocational fields. Based on TVET empowerment program, the Ministry of Education Malaysia as well as Ministry of Higher Education gives effort to grow

the skilled generations' competency in the early stages involving teachers, schools, and students in hope that Malaysia would be on par with developed countries [4]. Students as the client should be provided with serious training and skills to survive in the real working environment. They need to prepare thoroughly physically and mentally by embedding the Life and Career skills into their curricular in every program offered in vocational colleges [4]. Technology is being integrated into all professions and industries and is transforming traditional occupational profiles. The International Labor Organization (ILO) observes that in the majority of industries, products, processes and services are undergoing constant change, and new occupations are emerging [5].

3.0 Methodology

This study was conducted to see the responds from the students of Politeknik Kuala Terengganu in choosing lifelong TVET course to enhance their knowledge before entering the job market. The responds from 416 students were collected from two main field which are Electrical Engineering and Information Technology as these two field are offered in diploma level in Poliytechnic of Kuala Terengganu. This study used printed questionnaires given to the students directly. The questionnaires is consist of five parts which are section A to F containing personal and academic background, details of career and learning goals, course format, course hours and learning styles.

A pilot study has been conducted to determine the reliability of the questionnaire. Additionally, the aim is to assess the impact and capability of this platform in facilitating the learning process. A total of 30 respondents were involved in this pilot study. The IBM SPSS Statistics 25 is used and the Cronbach's Alpha scale is applied for item reliability. The coefficient value for the entire 19 questions of the questionnaire was 0.811, which indicates that the reliability of the entire questionnaire is acceptable as it exceeds the value of 0.6. To identify elements that need improvement, adjustment, or removal from the planned research instrument, the Reliability Value Table can be used as a reference. This table helps in evaluating the reliability of the research instrument based on the reliability coefficient, as shown in Table 1 below:

Table 1: Guideline for Reliability Value Levels

Reliability Coefficient	Level of Reliability
0.90 or more	Excellent
0.80 – 0.89	Good
0.60 – 0.79	Moderate
0.40 – 0.59	Doubtful
0.00 – 0.39	Reject

In addition, the Likert Scale has been used in this study. It ranges from scale 1 (strongly disagree) to scale 5 (strongly agree) for each question item. Table 2 shows the weight of the Likert Scale

Table 2: Likert Scale Weight

Weight	Score
Strongly Agree	Excellent
Agree	Good
Somewhat Agree	Moderate
Disagree	Doubtful
Strongly Disagree	Rejected

The data collected will be analyzed and then interpreted based on the minimum values as summarized in Table 3 below.

Table 3 : Tendency Level

Mean Score	Level
1.00 to 2.40	Low
2.41 to 3.80	Moderate
3.81 to 5.00	High

4.0 Result and Analysis

Table 4 : Responds from Section A

	Category	Frequency	Percentage (%)
Gender	Male	277	66.5
	Female	139	33.5
Program	Electrical Engineering Department	132	31.7
	Information Technology Department	284	68.3
Semester	1	148	37
	2	21	5.2
	3	88	22
	4	19	4.8
	5	87	21.8
	6	37	9.3

Table 4 presents the demographic distribution of respondents based on two categories: Gender and Program. It shows both the frequency (number of respondents) and the corresponding percentage for each subgroup. From the gender information, the two-thirds or 66.5% of the respondents are male while one-third or 33.5% of the respondents are female. Meanwhile 132 respondents or 31.7% are from Electrical Engineering Department and 284 respondents or 68.3% are from Information Technology Department which represent the majority respondents.

Table 5 : Responds from Section B

	Question	Mean Score	Level	Standard Deviation
	Choose the main reasons for considering a lifelong learning course			
B1	Enhance current knowledge	4.81	High	0.71
B2	Improve job readiness	4.42	High	0.82
B3	Learn something new outside your course	4.45	High	0.80
B4	Explore a different future career path	4.09	High	0.91

B5	Build a personal project or portfolio	3.95	High	1.12
B6	Gain certifications recognized by future employers	4.05	High	0.92

Table 5 presents the main reasons students consider enrolling in lifelong learning courses, based on their responses to six survey items. The results indicate that all items received a high mean score, suggesting strong agreement across the board. The highest-rated reason was "Enhance current knowledge" (Mean = 4.81, SD = 0.71), showing that most students prioritize expanding their existing knowledge. This was followed closely by "Learn something new outside your course" (Mean = 4.45, SD = 0.80) and "Improve job readiness" (Mean = 4.42, SD = 0.82), reflecting the importance students place on gaining practical and diverse skills for the job market. Other reasons such as "Explore a different future career path" (Mean = 4.09, SD = 0.91) and "Gain certifications recognized by future employers" (Mean = 4.05, SD = 0.92) were also rated highly, indicating that students see lifelong learning as a strategic tool for career development and employability. The item with the lowest mean score, though still within the high range, was "Build a personal project or portfolio" (Mean = 3.95, SD = 1.12), which also showed the highest standard deviation, suggesting more varied responses. Overall, the data shows that students are highly motivated to pursue lifelong learning for both personal and professional growth, with knowledge enhancement and job readiness being the most compelling factors.

Table 6 : Responds from Section C

	Question	Mean Score	Level	Standard Deviation
	Which areas interest you most for lifelong learning			
C1	Digital Skills (e.g., coding, design, AI)	4.85	High	0.67
C2	Business & Entrepreneurship	3.97	High	0.96
C3	Communication & Leadership	3.44	Moderate	1.15
C4	Creative Arts (e.g., music, film, photography)	3.54	Moderate	1.10
C5	Engineering & Technology	4.97	High	0.59
C6	Financial Literacy & Investment	3.47	Moderate	1.14

Table 6 shows the areas of interest among students for lifelong learning courses based on six categories. The results show that "Engineering & Technology" received the highest mean score (4.97, SD = 0.59), indicating it is the most popular area, with strong and consistent interest among respondents. This is closely followed by "Digital Skills" such as coding, design, and AI (Mean = 4.85, SD = 0.67), showing that technical and digital competencies are highly valued for future learning. "Business & Entrepreneurship" also received a high level of interest (Mean = 3.97, SD = 0.96), suggesting that many students are also inclined toward building business acumen and entrepreneurial skills. On the other hand, "Communication & Leadership" (Mean = 3.44), "Creative Arts" (Mean = 3.54), and "Financial Literacy & Investment" (Mean = 3.47) were all rated at a moderate level, with higher standard deviations (above 1.10), indicating more varied responses across students. In summary, the most sought-after lifelong learning areas are strongly technical in nature—particularly engineering and digital skills—while interest in soft skills, creative fields, and financial education is moderate and more mixed among the respondents.

Table 7 : Responds from Section D

	Question	Mean Score	Level	Standard Deviation
	Which type of course format do you prefer			
D1	Online (self-paced)	4.05	High	0.92
D2	Online (live sessions)	4.97	High	0.51
D3	Face-to-face workshops/seminars	4.85	High	0.62
D4	Blended (online + in-person)	4.9	High	0.58

Table 7 represents students' preferences for different types of course formats in lifelong learning. All four options received high mean scores, indicating strong overall interest across the formats. The most preferred format is "Online (live sessions)", with the highest mean score of 4.97 and a low standard deviation (0.51), showing a very strong and consistent preference among respondents for real-time, interactive online learning. This is followed closely by "Blended (online + in-person)" with a mean of 4.90 (SD = 0.58) and "Face-to-face workshops/seminars" at 4.85 (SD = 0.62), indicating that many students still value in-person interaction and learning experiences, either fully or as part of a hybrid model. The format with the lowest, but still high, preference is "Online (self-paced)", with a mean of 4.05 and a slightly higher standard deviation (0.92), suggesting more variation in responses. While self-paced learning is appreciated for its flexibility, it may not be as engaging or preferred as live or blended formats. In conclusion, students strongly favor interactive and blended learning experiences, with live online sessions being the top choice, while self-paced learning—though still valued—is slightly less preferred.

Table 8 : Responds from Section E

	Question	Mean Score	Level	Standard Deviation
	How many hours per week could you commit to a course			
E1	1-2 hours	3.32	Moderate	1.31
E2	3-5 hours	4.05	High	0.92
E3	6-8 hours	4.83	High	0.64
E4	>9 hours	0.9	Low	3.92

Table 8 displays students' responses on how many hours per week they could realistically commit to a lifelong learning course. The most popular choice is "6–8 hours", with a high mean score of 4.83 and a low standard deviation (0.64), indicating strong and consistent willingness among students to dedicate this amount of time weekly. The next preferred option is "3–5 hours", also with a high mean score of 4.05 and a slightly higher standard deviation (0.92), suggesting it is also a common commitment level but with slightly more varied responses. The "1–2 hours" option received a moderate mean score of 3.32 and a relatively higher standard deviation (1.31), indicating mixed responses—some students may find this time too short, while others consider it ideal due to time constraints. Interestingly, the option ">9 hours" received the lowest mean score of 0.9, with a very high standard deviation (3.92), reflecting a wide spread in responses and a general reluctance to commit to more than 9 hours per week. In summary, most students are willing to commit between 3 to 8 hours per week to a course, with a clear preference for 6–8 hours, while very few are prepared to commit more than 9

hours. This suggests that effective lifelong learning programs should aim to fit within the 3–8 hours weekly range to align with students' availability and preferences.

Table 9 : Responds from Section F

	Question	Mean Score	Level	Standard Deviation
	What kind of learning style works best for you?			
F1	Watching videos/tutorials	4.82	High	0.65
F2	Doing hands-on projects	4.76	High	0.74
F3	Reading materials/articles	3.82	High	1.26
F4	Group discussions or peer learning	4.83	High	0.64
F5	Listening to audio (e.g., podcasts, lectures)	4.05	High	0.93

Table 9 summarizes students' preferred learning styles for lifelong learning, with all listed methods receiving high mean scores, indicating strong overall interest. The most favoured learning style is "Group discussions or peer learning", which has the highest mean score of 4.83 and a low standard deviation of 0.64, showing that students highly value interactive, collaborative learning environments and that this preference is consistent across respondents. Closely following are "Watching videos/tutorials" (Mean = 4.82, SD = 0.65) and "Doing hands-on projects" (Mean = 4.76, SD = 0.74), which reflect a strong preference for visual and experiential learning methods. These results suggest that students are highly engaged when learning is practical and visually supported. "Listening to audio (e.g., podcasts, lectures)" also received a high score (Mean = 4.05, SD = 0.93), indicating it is a preferred method for many, though with slightly more variation in responses. Meanwhile, "Reading materials/articles" received the lowest mean score of 3.82, though still within the high range. It also has the highest standard deviation (1.26), suggesting that reading is effective for some but not equally preferred by all. In summary, students generally prefer interactive, visual, and hands-on learning styles, with group discussions, videos, and projects being the most effective. Reading and listening are still valued, but with more mixed responses, highlighting the need for diverse, multimodal content delivery in lifelong learning programs.

5.0 Conclusion

As conclusions, students in Polytechnic of Kuala Terengganu chose to have lifelong learning course in TVET which are digital skills and engineering technology to enhance current knowledge using online, face to face and blended platform in 3-8 hours per week by group discussions, watching videos and doing hands-on project. Looking at this results, in future, Polytechnic of Kuala Terengganu might plan the lifelong learning according to this survey to tackle the students participations.

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