

Long Life Learning TVET Course Implementation in Politeknik Kuala Terengganu

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Abstract

This study explores the implementation of lifelong learning (LLL) courses within Technical and Vocational Education and Training (TVET) in Politeknik Kuala Terengganu institutions, focusing on the effectiveness, challenges, and opportunities for adult learners and working professionals as well as all folks of life. This study is based on lifelong learning course participations in Politeknik Kuala Terengganu in 2024. As global economies rapidly evolve, the demand for continuous skill development has positioned TVET as a key player in supporting lifelong learning. Using a document analysis approach, the research collected data from Politeknik Kuala Terengganu institutions through e-psh system. The study also highlights the importance of digital learning platforms and modular course design in making lifelong learning more inclusive. Despite existing barriers, TVET's role in national upskilling and reskilling efforts is becoming increasingly critical. The paper concludes with policy and practice recommendations to strengthen LLL implementation, including enhanced government-industry-education partnerships, increased investment in infrastructure and staff development, and the promotion of a lifelong learning culture across all levels of society.

Keywords: *Lifelong Learning, TVET, Effectiveness, Challenges*

1.0 Introduction

According to the Ministry of Education Malaysia (MOE), Technical and Vocational Education and Training (TVET) is a form of education and training designed to equip individuals with specialized skills for future use in industry [3]. One of the institutions offering TVET is the Polytechnics as well as vocational colleges [3]. The objectives of the Lifelong Learning (PSH) Program implementation at polytechnics in Malaysia are to organize and provide lifelong learning programs and courses to support the development of knowledgeable communities (k-communities) and also to provide training for upskilling and reskilling among local employees [1]. Apart from that, polytechnic lifelong learning program also aimed to establish strategic networks that strengthen socio-economic activities among the local community and stakeholders as well as to provide public facilities and optional services [1]. The Lifelong Learning programs are focused on industrial player, corporate and government agencies, local communities and students [1]. The lifelong learning programmes usually organized in the most well demand, up to date and TVET field as the polytechnic establishment based on technical and vocational education training institute (TVET). This paper objectives is to see the implementation of lifelong learning courses in Politeknik Kuala Terengganu in 2024 to forecast and plan the LLL TVET course in these institutions in future.

2.0 Literature Review

Traditional approaches to Technical and Vocational Education and Training (TVET) that treat initial training as a final step are no longer sufficient for preparing individuals for today's ever-changing job market [2]. Lifelong learning—encompassing formal, non-formal, and informal education—will be crucial for TVET learners, who must continuously upskill and reskill to stay aligned with industry developments and unexpected technological shifts [2]. Lifelong learning has become increasingly important in discussions on development and education, and is now recognized as a vital component of sustainable development [3]. Technical and Vocational Education and Training (TVET) provides a blend of education, practical training, and skill development across various occupational sectors, including production, services, and

diverse livelihood activities [4]. With fast-evolving technologies and complex job markets, incorporating lifelong learning into TVET is crucial to support sustainable development [4].

3.0 Methodology

The methodology used in the paper is the analysis from the epsh system that are used in polytechnic and community college in Malaysia. However, the scope of the study is Polytechnic of Kuala Terengganu. The data are from the implementation of lifelong learning courses that had been implemented in 2024 and are analysed using Microsoft Excel. The study is held to see the TVET field that has been cultivated in the lifelong programmes and to foresee the future of TVET lifelong programme in Polytechnic of Kuala Terengganu. The epsh system is achievable through the internet using address app.mypolycc.edu.my/epsh/poli/

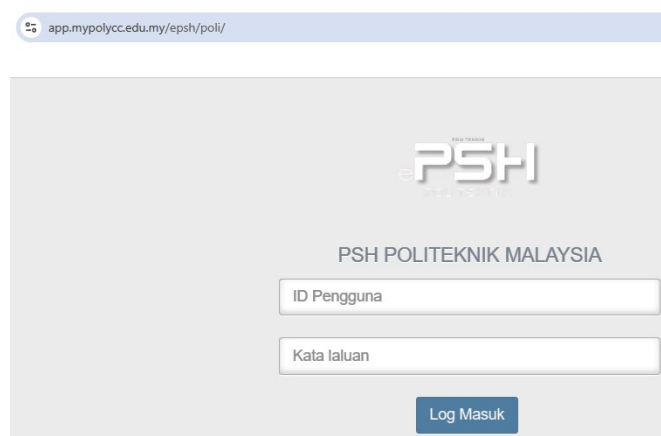


Figure 1: Interface of epsh system

Figure 1 shows the interface of epsh system where the coordinator key in the user identification and password to access the demand of the TVET and NON-TVET course. Before that, the coordinator shall be permitted by the epsh system administration team. Epsh system is where all the data participants and courses are stored and will be deleted after one year cycle

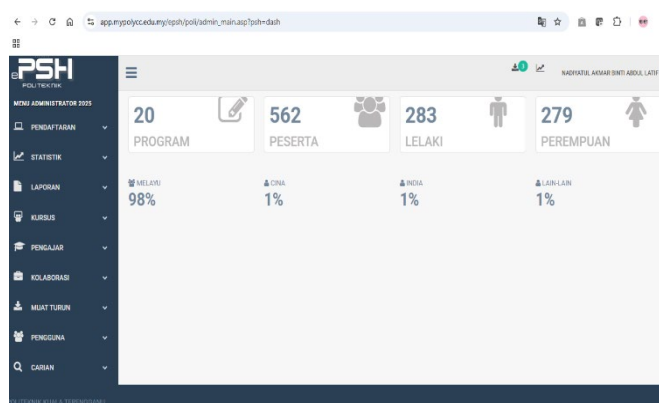


Figure 2: Details content display in epsh system

Figure 2 shows the content in the epsh system. Coordinator may access the details of the participants, programs, as well as the feedback and comments from the participants

4.0 Result and Analysis

The results of the study are presented quarterly or every three months. However, in epsh system, the reports are also including the classification of the types of courses which are short courses, professional body certification, IR 4.0, professional certificates or diploma and part-

time courses. Meanwhile, this paper is mainly focused in TVET courses that has been implemented in all the above categories.

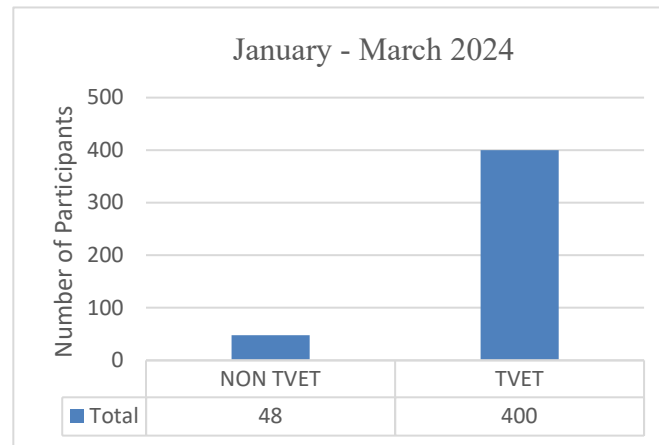


Figure 3: Number of Participants in TVET and NON-TVET Lifelong Programs in Polytechnic of Kuala Terengganu between January – March 2024

Figure 3 illustrates the number of participants in TVET and NON-TVET lifelong programs in Polytechnic of Kuala Terengganu in the first quarter in 2024. The participants in TVET programs recorded higher number compared to NON-TVET which are 400 participants while NON-TVET is 48 participants.

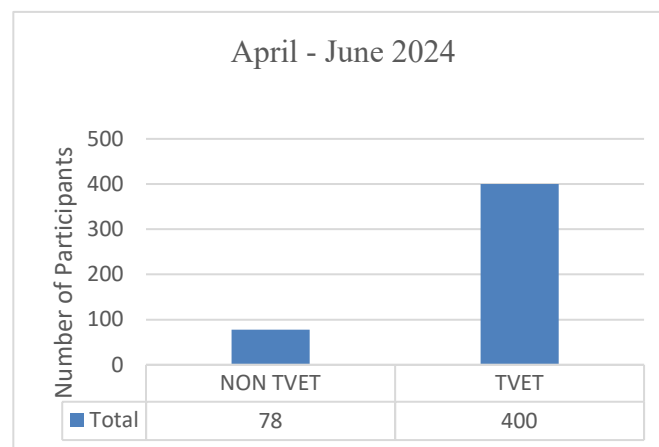


Figure 4: Number of Participants in TVET and NON-TVET Lifelong Programs in Polytechnic of Kuala Terengganu between April – June 2024

Figure 4 presents the number of participants in TVET and NON-TVET lifelong programs in Polytechnic of Kuala Terengganu in the second quarter in 2024. The participants in TVET programs recorded higher number compared to NON-TVET which are 400 participants while NON-TVET is 78 participants. This show slightly increasement in NON-TVET participation programs while TVET programs maintained the same figures of participations

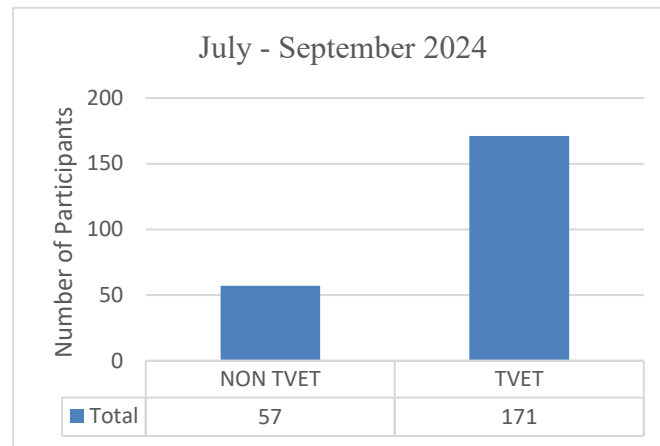


Figure 5: Number of Participants in TVET and NON-TVET Lifelong Programs in Polytechnic of Kuala Terengganu between July – September 2024

Figure 5 portrays the number of participants in TVET and NON-TVET lifelong programs in Polytechnic of Kuala Terengganu in the third quarter in 2024. The participants in TVET programs had still recorded higher number compared to NON-TVET which are 171 participants while NON-TVET is 57 participants. This show the TVET lifelong programs are more demanding than the NON-TVET programs

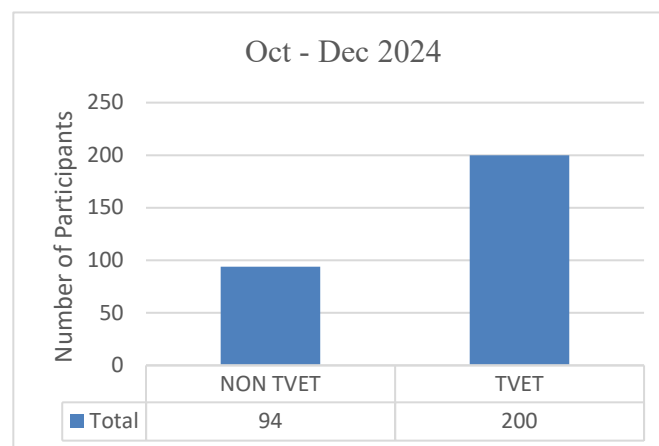


Figure 6: Number of Participants in TVET and NON-TVET Lifelong Programs in Polytechnic of Kuala Terengganu between October – December 2024

Figure 6 shows the number of participants in TVET and NON-TVET lifelong programs in Polytechnic of Kuala Terengganu in the last quarter in 2024. The participants in TVET programs had still recorded higher number compared to NON-TVET which are 200 participants while NON-TVET is 94 participants. This show the TVET lifelong programs are more interesting among the lifelong learning programs participants.

Table 1: List of Polytechnic of Kuala Terengganu's Lifelong Learning Programs in 2024

Num	Name of Lifelong Learning Courses/Program in Polytechnic of Kuala Terengganu in 2024	TVET/NON-TVET
1.	Tajweed Lesson Made Easy 1.0	NON-TVET
2.	Kursus Scratch Programming	TVET
3.	Kursus Pengendalian Delivery Platform Dan Kejuruteraan Menu	TVET
4.	Kursus Pemasangan Dan Penyelenggaraan Fibre-To-The-Home (FTTH)	TVET
5.	Kursus Kerjaya Berjaya	NON-TVET
6.	Kursus Jom Cergas Dan Sihat Dengan Zumba	NON-TVET
7.	Kursus Home Based Business : Jahitan Beg Tote	TVET
8.	Kursus Asas Faraid	NON-TVET
9.	Bengkel Simulasi Arduino Menggunakan Perisian Tinkercad	TVET
10.	Bengkel Sehari Pengenalan Kepada Data Analisis Dan Big Data	TVET
11.	Bengkel Pengenalan E-Learning Siri I	TVET
12.	Bengkel Osiloskop MDS2152	TVET
13.	Bengkel Asas Microcontroller Arduino Nano	TVET
14.	Kursus Scratch Programming	TVET
15.	Kursus Programmable Logic Devices (PLC)	TVET
16.	Kursus Portable Wiring Trainer	TVET
17.	Kursus Kodular	TVET
18.	Kursus Introduction To Oscilloscope	TVET
19.	Kursus Codeigniter Framework	TVET
20.	Kelas Mewarna	NON-TVET
21.	Bengkel Penampilan Diri Dan Wajah	NON-TVET
22.	(TVET)Proses Daftar E-Book-Polycc/Pkt (Online)	TVET
23.	Program Bakat Pelajar : Pembangunan Aplikasi Mobile Apps Siri 1	TVET
24.	Program Bakat Pelajar : Pembangunan Aplikasi Mobile Apps Siri 2	TVET
25.	Program Bakat Pelajar : Pembangunan Aplikasi Mobile Apps Siri 3	TVET
26.	Kursus Robotik RBTX	TVET
27.	Kursus Microsoft Words Basics	TVET
28.	Kursus Asas Robotik	TVET
29.	Kursus Asas Dron	TVET
30.	English Challenge For Kids	NON-TVET
31.	Diy Clay For Kids	TVET
32.	Bengkel Pengenalan E-Learning Siri II	TVET
33.	Bengkel Baikpulih Peralatan Elektrik Siri 1	TVET
34.	Bengkel Baikpulih Peralatan Elektrik Siri 2	TVET
35.	Bengkel Elements Of Clouds In Controlling Sasal Bot	TVET
36.	Kursus Bunga Paip	TVET
37.	Kursus Fun With English	NON-TVET
38.	Kursus Google Sheets (JPJ)	NON-TVET
39.	Kursus Microsoft Powerpoint	NON-TVET
40.	Kursus Pemantapan Tajwid	NON-TVET
41.	Kursus Pengurusan Jenazah Wanita	NON-TVET
42.	Kursus Penulisan Laporan Teknikal	TVET
43.	Program Bakat Pelajar : Pembangunan Aplikasi Mobile Apps Siri 4	TVET
44.	Program Bakat Pelajar : Pembangunan Aplikasi Mobile Apps Siri 5	TVET
45.	Program Bakat Pelajar : Pembangunan Aplikasi Mobile Apps Siri 6	TVET

Table 1 represent the lifelong learning courses and programs in Polytechnic of Kuala Terengganu in 2024 where TVET courses had more participations than the NON-TVET courses. From the total of 45 lifelong learning programs organized by Polytechnic of Kuala

Terengganu, 12 programs are NON-TVET and 33 are TVET programs. The figures indicate 73% for TVET programs and 27% for NON-TVET. In January to March 2024 the NON-TVET participations is about 10% from the TVET participations in LLL course in Politeknik Kuala Terengganu while in second quarter of the year which are from April to June 2024, the NON-TVET LLL course participations had increased to nearly 20% from the TVET participations. In third quarter of 2024, the NON-TVET had also increased to 33% from the TVET LLL course participations and for the final quarter which are from October to December 2024, the NON-TVET participations had also increased to nearly 50% the numbers of participations in TVET LLL courses.

5.0 Conclusions

In conclusion, the integration of Technical and Vocational Education and Training (TVET) in lifelong learning programs is essential to maintain the number of participants in Polytechnic of Kuala Terengganu lifelong learning courses implementation. Apart from the cluster 2 key performance index which is 750 lifelong learning courses participants, Polytechnic of Kuala Terengganu shall organize more TVET lifelong learning courses to provide good quality of TVET courses to the communities to upgrade value of humankind as well as to reach national goals for sustainable economic growth. However, the trends had also showed that the NON-TVET participations had also increased throughout the year but in the smaller amount of participations this also had to be triggered in the LLL course planning in future by the Politeknik Kuala Terengganu management team. Moving forward, strong collaboration between educational institutions, industries, and policymakers will be critical to strengthening the impact and reach of TVET in Malaysia and beyond.

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