

## TVET Program in Malaysian Polytechnic With Stufflebeam Cipp Model: A Case Of Polytechnic Tuanku Syed Sirajuddin (PTSS)

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**Abstract:** TVET System in Malaysia is divided into three streams i.e. higher education, technical and vocational education and vocational skills training. Vocational and technical education starts at junior secondary level, which lies under the purview of Ministry of Education (MoE). This quantitative study was used an individual as a unit of analysis. Data was collected from the population of lectures at 1 polytechnic at Malaysia which is Politeknik Tuanku Syed Sirajuddin, Perlis, using stratified sampling technique. Through this technique, the population of 80 lectures was grouped into strata which includes varieties program. As derived from Krejcie and Morgan, a total of 66 lectures were made as sample size of the study. Instrument for this study was adapted from various authors such as Stufflebeam. Through the quantitative study, descriptive analysis found that dimension of process in Stufflebeam Cipp model was at higher level. Besides that, results from analysis of Pearson correlation found a significant relationship between TVET program in Malaysian polytechnic with Stufflebeam Cipp model. Some suggestion were proposed for the future study.

**Keywords :** *TVET program , Stufflebeam Cipp model, Polytehni*

### 1.0 INTRODUCTION

The education system in Malaysia has gone through tremendous changes and transformation. Prior to British colonization, education was done informally, mainly to acquire basic living skills. Even during British occupation, there was no significant policy on education, but various vernacular schools catered for the needs of particular ethnic groups such as the Malays, Chinese and Indians. This policy was in line with the British intention of discouraging rapport between the different races in Malaya to uphold their “divide and rule” policy. During the Japanese occupation of Malaya, education was focused on

propagating love and loyalty towards the Japanese emperor. It was only after the World War II, especially after the independence of Malaya in 1957, that a structured policy on education was formulated. The National Education System was implemented after the Education Act 1966 was passed by parliament. The government was able to use education as a tool to foster unity and nation-building through a common syllabus and curriculum. In 1989, the National Philosophy of Education was released and became part of Malaysia’s Vision 2020, which was to gain the status of a fully developed country by the year 2020. In order to strengthen Vision 2020 and better prepare the younger generation for the needs of the 21st

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century, the MOE has developed a new National Education Blueprint (NEB), which was launched in December 2012.

TVET System in Malaysia is divided into three streams i.e. higher education, technical and vocational education and vocational skills training. Vocational and technical education starts at junior secondary level, which lies under the purview of Ministry of Education (MoE). The MoE has developed Vocational Transformation Plan which comprises two components; Junior Vocational Education and Vocational College [1]. Whilst for the post-secondary level, TVET delivery is fragmented as government ministries and their agencies, universities, state skills development centres and privately owned institutions offer it. There are 525 public training institutions under seven ministries namely the MoHR, MoHE, Ministry of Youth and Sports (MoYS), Ministry of Regional and Rural Development (MoRRD), Ministry of Agriculture and Agro-Based Industry (MoA), Ministry of Works (MoW) and Ministry of Defence (MINDEF). These institutions continue to offer programmes that were introduced since their establishment and may not necessarily specialise based on their niche areas. In addition, there are 813 private institutions registered with DSD and 12 state skills development centres conducting TVET programmes with varying quality and standards. The Malaysian Technical University Network (MTUN) comprising four public universities, namely Universiti Malaysia Perlis, Universiti Malaysia Pahang, Universiti Teknikal Malaysia Melaka and Universiti Tun Hussein Onn, offer degree qualification for TVET. Universiti Kuala Lumpur (UniKL) and German-Malaysian Institute (GMI) also provide private TVET in higher education.

Polytechnic is one of the institutions of study under the Ministry of Higher Education. Since its first polytechnic, Ungku Omar Polytechnic, Ipoh, polytechnic graduates have been involved in various sectors of the manufacturing and construction industries until the country has made rapid economic progress. The system of study in polytechnics is a continuation of education in schools. In line with the country's desire to develop in the new economic model and in line with the National Higher Education Strategic Plan initiative, the Ministry of Higher Education has determined that polytechnics should be strengthened with new images so that they can compete and become the preferred institution among Sijil Pelajaran Malaysia's post-graduate students.

Therefore, from previous study found that effective evaluation can be a significant contributor to quality but does not necessarily guarantee that those in authority will heed the outcomes of evaluation and take needed corrective action. The term quality assessment has been used synonymously with evaluation in the context of regulating higher education and TVET programme. According to Kells [2] institutions and programs can be strengthened substantially through effective evaluation.

The objectives of the study include:

1. To identify the level TVET program in Malaysian Polytechnic with Stufflebeam Cipp mode
2. To identify principals' Stufflebeam Cipp Model towards dimensions that has the most dominant relationship towards TVET program in Malaysian Polytechnic

## **2.0 LITERATURE REVIEW**

### **2.1 Evaluation**

Model developed by Daniel Stufflebeam in 1970s [3]. This model was designed to evaluate programs, projects, personnel, products, institutions or transportation, safety and military personnel review systems [4]. systems from various disciplines such as education field, housing and community development According to Stufflebeam, evaluation involves decision-making, so all the main components of the evaluations (context, input, process and product) serve the decisions (planning, structuring, implementing and recycling) respectively in dynamic actions. Dynamic means that the information gained from any evaluation stages could be provided to any previous stages, so that modifications could be made [5]. Context evaluation gives an opportunity for the decision makers such as the ministry staff, administration group or school leaders to plan the program objectives either to confirm the present objectives, modify it or develop a new one [6]. Input evaluation gives an opportunity to decide on the structure of the programs such as something related to strategies, personnel, resources, procedures or a cost in achieving the programs objectives which have been derived earlier. Next, process evaluation involves making decisions on the implementation of the program such as the program's designs, strategies or action plans. Lastly is product evaluation which involves evaluating the outcomes of the programs. It involves recycling decisions whereby the outcomes of the programs is compared to the objectives of the programs whether to continue the

program or not, for example. All of the four processes could be conducted for two main purposes – formatively or summative.

## 2.2 TVET

The 11th Malaysia Plan, Rancangan Malaysia Kesebelas, (RMKe-11), 2016-2020, will continue carrying the agenda of producing human capital that are knowledgeable, skilled and possess positive attitude to develop in the global economy. The government will focus on four fields: improving the efficiency of labor market to increase economy growth, transform TVET to fulfil the industrial needs, strengthen the life-long learning to increase knowledge and improve the quality of education system to increase the student outcome and the excellence of institutions. The economy agenda highlighted in the RMKe-11 is expected to create 1.5 million jobs by 2020 by targeting improvement in labor productivity and reducing dependency on low-skilled foreign laborers, both due to the continuous transformation of labour-oriented economy towards knowledge and innovation-oriented economy. About 60% of the expected job opportunities require skills related to TVET [7].

TVET is recognized as the driver of transformation in order for Malaysia to generate skilled human capital. In general, this field will create world class human capital that is needed by Malaysia in the final phase of the country becoming a developed nation (RMK-11). Although various efforts have been taken by the Ministry of Education and related agencies to encourage and inform the public regarding the strength of existing technical and vocational education in Malaysia, most of the students and parents still choose academic stream rather than vocational stream [8].

## 2.3 Research Hypotheses

Table 4.1

*Distribution of respondents based on gender*

Gender	Frequency	Percentage
Male	20	30.4
Female	46	69.6
Total	66	100

### 4.1 Hypothesis Testing

Several hypotheses were proposed for the study as below:

**H<sub>01</sub>:** There is no significant relationship between context dimension in Stufflebeam Cipp models and tvet program in malaysian polytechnic

**H<sub>02</sub>:** There is no significant relationship between input Stufflebeam Cipp models and tvet program in malaysian polytechnic

**H<sub>03</sub>:** There is no significant relationship between process Stufflebeam Cipp models and tvet program in malaysian polytechnic

**H<sub>04</sub>:** There is no significant relationship between product Stufflebeam Cipp models and tvet program in malaysian polytechnic.

## 3.0 RESEARCH METHODOLOGY

This quantitative study was used an individual as a unit of analysis. Data was collected from the population of lectures at 1 polytechnic at Malaysia which is Politeknik Tuanku Syed Sirajuddin, Perlis, using stratified sampling technique. Through this technique, the population of 80 lectures was grouped into strata which includes varieties program. As derived from Krejcie and Morgan [9], a total of 66 lectures were made as sample size of the study.

Instrument for this study was adapted from various authors such as Stufflebeam [10]. A set of questionnaire were used with 5 –points Likert scale to measure all variables. As refer to Pallant [11], reliability of the instruments were acceptable because the analysis of Cronbach Alpha have shown good values.

## 4.0 ANALYSIS AND RESULTS

66 questionnaires were distributed. From 66 respondents, lectures were male 20 (30.4 %) and 46 were female lecturers (69.6 %).

Table 4.2  
*Correlation Analysis for Related Variables*

Variable	R value	(sig )	Summary of Hypothesis
Context	.51	0.00	Supported
Input	.56**	0.00	xx
Process	.51**	0.00	xx
Product	.69**	0.00	xx

Note \*\* Correlation is significant at the 0.01 level ( 2 tailed )

Table 4.2 shows the context in dimension in Stufflebeam Cipp models has positive significant relationship ( $r = .51, p < .05$ ) with tvet program in Malaysian polytechnic. Therefore, **H<sub>01</sub>** is rejected and there exist positive averagely significant relationship between context in dimension in Stufflebeam Cipp models with tvet program in Malaysian polytechnic .

The result found (Table 4.2) showed that there is positive relationship between input in dimension in Stufflebeam Cipp models with tvet program in Malaysian polytechnic. Sig (2-.tailed) is less than 0.05, ( $r = .56, p < .05$ ).Therefore, **H<sub>02</sub>** is rejected and there exist positive averagely significant relationship between input in dimension in Stufflebeam Cipp models with tvet program in Malaysian polytechnic . The result found (Table 4.2) showed that there is positive relationship between processes in dimension in Stufflebeam Cipp models with tvet program in Malaysian polytechnic. Sig (2-.tailed) is less than 0.05, ( $r = .51, p < .05$ ).Therefore, **H<sub>03</sub>** is rejected and there exist positive averagely significant relationship between process in dimension in Stufflebeam Cipp models with tvet program in Malaysian polytechnic.

The result found (Table 4.2) showed that there is positive relationship between in product dimension in Stufflebeam Cipp models with tvet program in Malaysian polytechnic. Sig (2-.tailed) is less than 0.05, ( $r = .69, p < .05$ ).Therefore, **H<sub>04</sub>** is rejected and there exist positive averagely significant product dimension in Stufflebeam Cipp models with tvet program in Malaysian polytechnic.

### 5.0 Discussion and Implication

The result for all dimensions of Stufflebeam Cipp model showed averagely strong relationship with tvet program in Malaysian polytechnic studied. The

dimension that showed a highest correlation value is the product. Nevertheless, the difference in value is not wide. Thus, it can be claimed that each dimension has its own significance in TVET program in Malaysian Polytechnic.

The statistical analysis showed that there is positive significant relationship between tvet program in Malaysian polytechnic and Stufflebeam Cipp models. This statement supported by findings in this research shows that our level of knowledge amongst out graduate very high. Thus, the government will focus on four fields which are improving the efficiency of labor market to increase economy growth, transform TVET to fulfil the industrial needs, strengthen the life-long learning to increase knowledge and improve the quality of education system to increase the student outcome and the excellence of institutions.

This research used the CIPP Education Evaluation Model and emphasized the relationship between four main factors which are contexts, input, process and input from the perspective of learning output as determined by the MOHE, JPP and Polytechnic. The objectives of offered programs and the result of learning were also included. Therefore, JPP and Polytechnic is on the right track of developing graduates who are knowledgeable and skilled.

### 6.0 Conclusion

This research is expected to provide an understanding regarding the implementation of curriculum and can be used to develop and action plan that assists in increasing the effectiveness of technical and vocational training implementation. This will also assist towards achieving the nation’s aspiration of

becoming a high-income nation by 2020. Comprehension of the processes that exist within the system of developing skilled workers will enable the nation in planning the human capital to lead the economy parallel with the Economy Transformation Plan (ETP) that will be implemented by the government in order to achieve the vision 2020

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