



The High Vocational Innovation Scholarship Program: A TVET Curriculum Continuous Quality Improvement Using Feedback from Stakeholders

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Abstract: This research aimed to 1) evaluate the TVET curriculum of Vocational Education Institutions participating in the high vocational innovation scholarship program, the Equitable Education Fund (EEF), Thailand by applying the CIPP_{IEST} Model and 2) analyse the feedback from this evaluation process. Key informants from 60 vocational education institutions in all regions of Thailand and participate in the high vocational innovation scholarship program for batch 1 (academic year 2019) and batch 2 (academic year 2020) under the EEF. Each institution consists of 1 college administrator and 1 teacher or instructor who perform academic duties and implement the TVET curriculum in the institution, totalling 120 persons. Instrumentation involved a curriculum evaluation form containing items based on the CIPP_{IEST} Model and administered online with google forms to facilitate the sample's responses. Data analysis included frequency, percentage, mean, standard deviation, and content analysis. Results of the evaluation with the CIPP_{IEST} Model showed the overall mean at a high level. The 3 top-ranked issues rated at a high level were sustainability evaluation; product evaluation; and effectiveness evaluation, respectively. The 4 lower-ranked issues also rated at a high level were transportability evaluation; process evaluation; context evaluation and input evaluation, respectively. Additionally, it was found that educational institutions with leadership-oriented administrators are able to lead better and inspire their personnel to work together successfully; drive for co-development of educational curriculum that fits the needs, proficiency, social and cultural contexts of the local community where the institution is located; and also establish collaboration among personnel and external agencies to participate in the management of education effectively, thus bringing about an innovative and unique curriculum at a particular educational institution.

Keywords: Curriculum evaluation, vocational education, CIPP_{IEST} Model, Equitable Education Fund (EEF)

1. Introduction

Vocational education curriculums for the levels of Vocational Certificate (Voc. Cert.) and High Vocational Certificate (High Voc. Cert.) are both competency-based. The Vocational Certificate Program 2019 is a post-lower secondary education program or equivalent which was developed for professional education management at the vocational certificate level. The Higher Vocational Certificate Program 2020 was developed for professional education management at the high education level. Both programs were developed with the aim to raise the professional education level of individuals corresponding to the National Economic and Social Development Plan and the National Education Plan in accordance with the National Qualifications Framework, the National Education Standards, and the National Vocational Qualifications Framework, and adhering to professional standards. (Bureau of the Vocational and Professional Standards, 2019). The curriculums emphasize hands-on learning to develop manpower capacity, morals, personal and professional ethics, and good habits suitable for work. This is to match the demands of the labour market, community, and society, and allow for self-employment as well. Learners are allowed to choose a learning system and method that is appropriate

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to their potential, interests, and opportunities. Collaboration in educational management and curriculum development is encouraged among institutions, educational institutes, agencies, enterprises and organizations at the community, local, and national levels (Bureau of the Vocational and Professional Standards, 2020).

Curriculum is deemed important as it provides a tool to determine the direction for learner development. A good curriculum is characterized by its effectiveness in communicating guidelines for practice to users, corresponding to social conditions, meeting the needs and proficiencies of learners, as well as offering flexibility to varied local conditions and diverse learners with different ways of life and livelihood. In addition, for a curriculum to be effective, knowledge and experience gained can be successfully applied by the learners in their lives. Therefore, the construction and improvement of curriculums should involve multiple active parties and should be updated to allow learners to individually explore their proficiency as times change. A good curriculum should be dynamic and adapted to the needs and changes of society. Therefore, curriculums require continuous assessment and development (Pupan S., 2003: 159 - 160).

Curriculum development begins with setting professional standards or competency standards by establishments/professional associations developing curriculum at the level of fields of study, approving the curriculum and lastly implementing the curriculum. The development of a competency-based curriculum is subject to following the curriculum standards framework for the vocational certificate (Voc. Cert.) and the curriculum standards framework for the high vocational certificate (High Voc. Cert.) that comply with the professional standards or competency standards of each vocational field and respond to the demands of labour market and technological advances in the globalization age. These curriculums must be able to produce a quality labour force at different levels: general competencies, core competencies, and professional competencies including morals, discipline, attitude, and desirable characteristics to pursue careers that satisfy the needs of the labour market and respond to the socio-economic conditions at the community, local, and national levels.

An important process for considering a curriculum's quality is curriculum evaluation. Wongyai V. (2011), Wongyai V. and Patphol M. (2013). concludes that curriculum evaluation has four objectives: 1) the consistency of the curriculum's supporting documents; 2) the use of the curriculum in accordance with the principles and aims of the curriculum; 3) the quality of learners who achieve the aims of the curriculum; and 4) how well the curriculum meets the needs of learners and society. Evaluation provides educational stakeholders with information for consideration of curriculum improvement. Course Assessment by Stufflebeam's CIPP Model (Stufflebeam, D. L. (2003); context evaluation (C) is an evaluation to help determine project feasibility objectives. It is an examination to answer various questions. Input evaluation (I) is an evaluation to use data. To judge whether the factors related to the project are appropriate or not by looking at whether the factors used contribute to the achievement of the project objectives. Process evaluation (P) is an assessment during project implementation to determine the merit and defects of the implementation of the various procedures defined. Product evaluation (P) is a report on the results of that project (Stufflebeam & Coryn, 2014; Stufflebeam & Shinkfield, 2007; Buasonte R., 2013), (Nillapun M. and et.al. 2017). It can be summarized that assessing a course using the CIPP_{IEST} Model is an assessment that extends CIPP further with the following: impact evaluation (I) which asks what is need to be met. Both positive and negative are all effects. Effectiveness evaluation (E), an assessment given to learners after the completion of a course to determine the high level of quality and achievement or to check progress in knowledge competence after 6-12 months of work, confirming the knowledge gained from education can be used to develop work or continuously create a new body of knowledge and including a follow-up on learners after completing the course for a period of time of more than 1 year. Sustainability evaluation (S), assessing the sustainability of results. It is an assessment by asking systematic or formal questions. What is the sustainable success of the project? This question aims to assess the stability of stay or continue successful projects and how to maintain them. Finally, transportability evaluation (T), is an assessment of learners' ability to apply the knowledge gained from education correctly and appropriately by applying concepts and new educational theories for solving problems and integrating them into different contexts. The composition of the CIPP_{IEST} Model is shown in the figure 1.

In the 21st century, curriculum improvement and development should take into account several key issues, namely: 1) development of curriculum to build up learners' attributes as lifelong learners; 2) curriculum and instructional reforms as powerful forces increasing the country's competitiveness; 3) curriculum and instructional reforms as powerful forces reinforcing the sufficiency and sustainability of national development; 4) curriculum and instructional reforms as powerful forces developing social capital; 5) curriculum and instructional reforms' power to fortify national security, foreign affairs, and the administration of justice; 6) curriculum and instructional reforms as powerful forces strengthening the country's administration; 7) attention to learners' learning styles in different contexts; and 8) analysis of education institutions' curriculum with sufficient quality to serve as a curriculum bank.

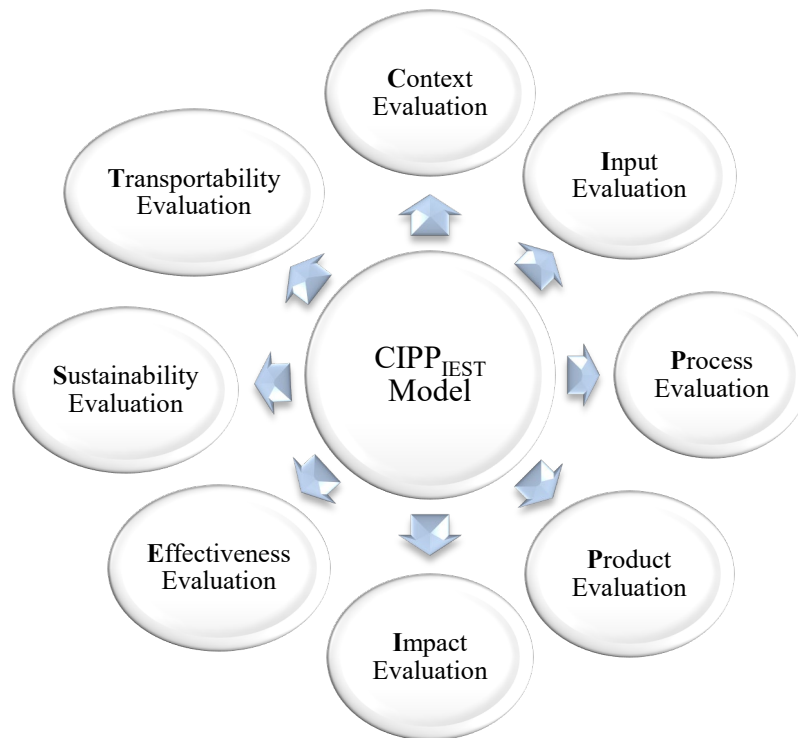


Fig. 1 - The composition of the CIPP_{IEST} Model
**developed by the author*

The high vocational innovation scholarship program under the EEF is open for project proposals from education institutions that offer vocational certificates and high vocational certificate levels and can enrol scholarship students. For fields of study to be supported with the scholarships, the selection process is open to Vocational Education Institutions of all affiliations that offer courses in the main target areas of national development including potential industries (First Curve), future industries (New S-Curve) and shortage study areas in provinces or group of provinces where the educational institution is located such as science, technology, and digital technology (STEM). Throughout the educational journey, young people who receive the scholarships will have good opportunities in 3 important areas: 1) learning from employers and hands-on practice; 2) learning new skills and future skills; and 3) learning via exchange with domestic and international experts. The EEF also works with Vocational Education Institutions in an alliance for instructional reform; producing vocational manpower with career competencies and skills for the 10 targeted industries according to the government policy and for the demand of the local labour market and encourages entrepreneurs to participate in dual education management and potential development of learners simultaneously (Akkarat P. and Rinradee P. 2020), (Rinradee P. 2020).

Therefore, in corresponding to the demands of the overall labour market, establishments and business owners in various fields, it is necessary and particularly important that all education institutions participating in the Innovative Advanced Vocational Scholarship Project need to expedite their curriculum and instructional development so as to ensure that students who have already graduated with a higher vocational certificate will have increased opportunities to enter the world of work or to pursue a career. This research aimed to 1) evaluate the TVET curriculum of Vocational Education Institutions participating in the high vocational innovation scholarship program, the Equitable Education Fund (EEF), Thailand by applying the CIPP_{IEST} Model and 2) analyse the feedback from this evaluation process.

2. Methodology

2.1 Data Acquisition Method

Acquisition of data related to the evaluation of the TVET curriculum of educational institutions participating in the high vocational innovation scholarship program for batch 1 (academic year 2019) and batch 2 (academic year 2020). Evaluating the TVET curriculum using the CIPP_{IEST} Model is submitting a google form to the target group and requesting cooperation to respond to the evaluation form. Online data input is to collect the data for each individual and provide spreadsheets to determine item mean.

2.2 Sample and Population

This study involved 60 vocational education institutions in all regions of Thailand and participated in the high vocational innovation scholarship program for batch 1 and batch 2 under the EEF. Key informants' providers for each institution

include 1 college administrator and 1 teacher or instructor who performs academic duties and implements the TVET curriculum in the institution, totalling 120 persons.

2.3 Instrumentation

Instrumentation for this research employed a curriculum evaluation form with items based on the CIPP_{TEST} Model, a 5-level Likert scale. The evaluation form consists of 3 parts: Part 1: General status of the respondent including gender and position in vocational education institutions, Part 2: Opinions towards the TVET curriculum, 7 issues (36 items) and Part 3: Other suggestions. The construction uses the following steps.

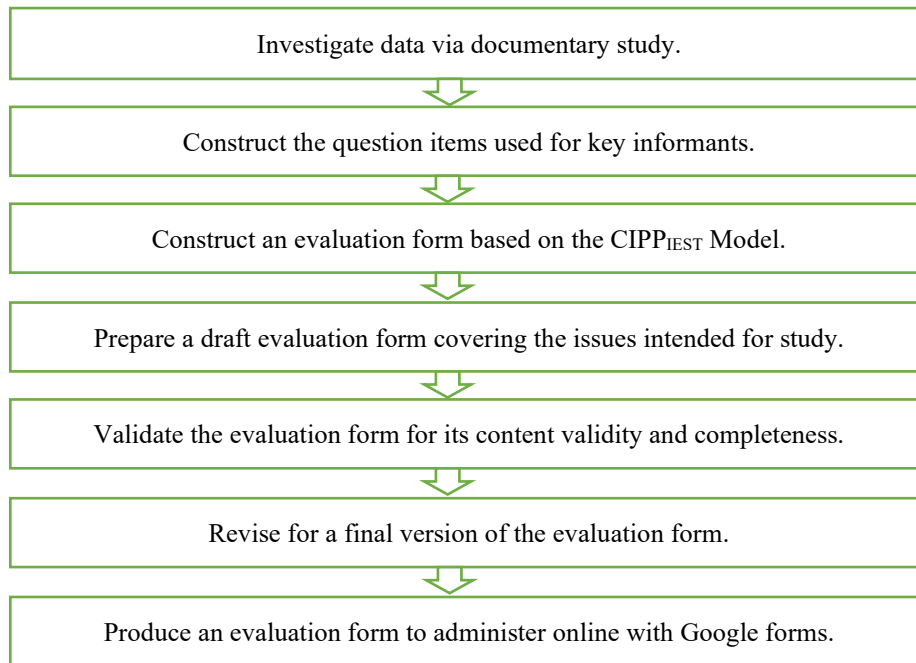


Fig. 2 - Construction of the research instrument
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2.4 Data Collection

The researchers collected data by calling the project coordinators from 60 vocational education institutions who participate in the high vocational innovation scholarship program to clarify the research objectives. Then send a Google form evaluation to each respondent via email address. After two weeks, the researchers called the project coordinators again to follow up. The data collection period was a month.

2.5 Data Analysis

This research analysed data using frequency, percentage, mean, and standard deviation. The data was analysed using the Microsoft Excel Program with the spreadsheets produced in Excel for the items individually and overall. The data obtained from the documentary study was processed with content analysis and presented with a descriptive approach.

3. Results

The respondents in this research consisted of 2 groups: 1) 26 college directors accounting for 21.67 percent (7 males and 19 females), 34 college deputy directors accounting for 28.33 percent (14 males and 20 females), and 2) teacher or instructor who perform academic duties and implement the TVET curriculum in the institution. They were 60 persons accounting for 50.00 percent, divided into 21 males and 39 females.

The evaluation of TVET curriculum applying the CIPP_{TEST} Model assesses curriculum currently used in education management for scholarship students Batch 1 and Batch 2. Evaluation results will guide the improvement of the subject curriculum to suit the current situation and correspond to the demand of establishments as users of those graduates from participating institutions. Results are shown as follows.

In Table 1, the result of context evaluation reported an overall mean (\bar{x} = 4.05), and standard deviation (S.D. = 0.85). The top-ranked issue rated at a high level is that the curriculum is competency-based (\bar{x} = 4.28, S.D. = 0.66), followed by the purposes of curriculum are practical also rated at a high level (\bar{x} = 4.19, S.D. = 0.80). The lower-ranked issues also rated at a high level are the establishments / entrepreneurs participate in developing subject curriculum (\bar{x} = 3.81,

S.D. = 0.88), and the number of credits of different courses in curriculum structure is appropriate (\bar{x} = 3.81, S.D. = 0.99).

Table 1 - Results of context evaluation

Item	List	\bar{x}	S.D.	Interpretation
1	Curriculum corresponding to the demand of society/establishments/entrepreneurs.	4.11	0.82	High
2	Curriculum is competency-based.	4.28	0.66	High
3	Curriculum purposes are practical.	4.19	0.80	High
4	Curriculum is up to date with the current situation.	4.06	0.84	High
5	Establishments / entrepreneurs involved in developing subject curriculum.	3.81	0.88	High
6	Number of credits of different courses in curriculum structure is appropriate.	3.81	0.99	High
Total		4.05	0.85	High

**developed by the author*

Table 2 - Result of input evaluation

Item	List	\bar{x}	S.D.	Interpretation
1	Teachers / instructors' qualifications match the fields of study being offered.	4.42	0.64	High
2	Education plan for the entire curriculum is clear and appropriate.	4.11	0.71	High
3	Learners have fundamental knowledge ready to attend the program.	3.64	0.95	High
4	Readiness of facilities including classrooms, operating room, workshop, learning resources.	3.94	0.87	High
5	Sufficiency of supplies and equipment for teaching and learning.	3.97	0.90	High
Total		4.05	0.85	High

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Table 2 presents the result of input evaluation on the overall mean (\bar{x} = 4.05) and standard deviation (S.D. = 0.85). The top-ranked issue rated at a high level is teachers/instructors' qualifications matching the fields of study being offered (\bar{x} = 4.42, S.D. = 0.64), followed by the management plan for the entire curriculum is clear and appropriate rated at a high level (\bar{x} = 4.11, S.D. = 0.71). The lowest-ranked issues are learners having fundamental knowledge ready to attend the program also rated at a high level (\bar{x} = 3.64, S.D. = 0.95).

Table 3 - Result of process evaluation

Item	List	\bar{x}	S.D.	Interpretation
1	Clear and systematic management of curriculum.	4.06	0.87	High
2	Instructional management process to promote learners' characteristics according to the professional standards framework.	4.14	0.72	High
3	Establishments participating in learning management.	3.92	0.92	High
4	Diverse methods of measurement and evaluation.	4.06	0.77	High
5	Regular supervision and monitoring of curriculum use.	3.92	0.87	High
6	Clearly identified guidelines for enhancing learners' competency.	3.86	0.70	High
Total		4.03	0.81	High

**developed by the author*

Table 3 provides the result of the process evaluation reporting the overall mean (\bar{x} = 4.03) and standard deviation (S.D. = 0.81). The top-ranked issue rated at a high level is the instructional management process to promote learners' characteristics according to the professional standards (\bar{x} = 4.14, S.D. = 0.72), followed by diverse methods of measurement and evaluation rated at a high level (\bar{x} = 4.06, S.D. = 0.77), and clear and systematic management of curriculum rated at a high level (\bar{x} = 4.06, S.D. = 0.87). The lowest-ranked issue is clearly identified guidelines for enhancing learners' competency also rated at a high level (\bar{x} = 3.86, S.D.= 0.70).

Table 4 - Result of product evaluation

Item	List	\bar{x}	S.D.	Interpretation
1	Students' learning achievement is attained by the purposes of program.	4.08	0.73	High
2	Students having desirable characteristics by the purposes of program.	4.08	0.70	High
3	Students having skills and ability at work.	4.17	0.73	High

4	Students are developed with the 21 st century skills on such as language, communication, social adaptability, use of technology, creativity, innovation development.	3.92	0.83	High
5	Graduates are employed or pursue a career of their field of study.	4.14	0.81	High
Total		4.11	0.76	High

**developed by the author*

In Table 4, the result of the product evaluation reported an overall mean ($\bar{x} = 4.11$) and standard deviation (S.D. = 0.76). The top-ranked issue rated at a high level is students having skills and ability at work ($\bar{x} = 4.17$, S.D. = 0.73), followed by graduates are employed or pursuing a career in their field of study also rated at a high level ($\bar{x} = 4.14$, S.D. = 0.81). The lowest-ranked issue rated at a high level is students are developed with 21st-century skills such as language, communication, social adaptability, use of technology, creativity, and innovation development ($\bar{x} = 3.92$, S.D. = 0.83).

Table 5 - Result of impact evaluation

Item	List	\bar{x}	S.D.	Interpretation
1	Students can use the acquired knowledge and experienced to extend for self-development.	4.00	0.89	High
2	Students are recognized by community and society.	4.06	0.96	High
3	Students have competencies that match the demand of establishments / entrepreneurs.	3.94	1.03	High
4	Parents have trust in the quality of educational management.	4.11	0.95	High
Total		4.06	0.95	High

**developed by the author*

Table 5 shows the result of impact evaluation on the overall mean ($\bar{x} = 4.06$) and standard deviation (S.D. = 0.95). The top-ranked issue rated at a high level is parents have trust in the quality of educational management ($\bar{x} = 4.11$, S.D. = 0.95), followed by students are recognized by community and society also rated at a high level ($\bar{x} = 4.06$, S.D. = 0.96). The lowest-ranked issue is students have competencies that match the demand of establishments/entrepreneurs also rated at a high level ($\bar{x} = 3.94$, S.D. = 1.03).

Table 6 - Result of effectiveness evaluation

Item	List	\bar{x}	S.D.	Interpretation
1	Learners are developed with better learning achievement.	4.00	0.92	High
2	Every learner passed the tests of professional competency/ year-level competency / subject competency	3.86	0.98	High
3	Learners develop body of knowledge from hands-on practice in real situation.	4.11	0.92	High
4	Establishments / entrepreneurs are satisfied with the graduates.	4.14	0.91	High
Total		4.07	0.93	High

**developed by the author*

In Table 6, the result of the effectiveness evaluation shows the overall mean ($\bar{x} = 4.07$) and standard deviation (S.D. = 0.93). The top-ranked issue rated at a high level is the establishments/entrepreneurs are satisfied with the graduates ($\bar{x} = 4.14$, S.D. = 0.91), followed by the learners develop body of knowledge from hands-on practice in real situations also rated at a high level ($\bar{x} = 4.11$, S.D. = 0.92). The lowest-ranked issue also rated at a high level is every learner passed the tests of professional competency/ year-level competency/subject competency ($\bar{x} = 3.86$, S.D. = 0.98).

Table 7 - Result of sustainability evaluation

Item	List	\bar{x}	S.D.	Interpretation
1	Learners can use the knowledge at work.	4.31	0.77	High
2	Learners can use the knowledge to effectively solve problems.	4.14	0.76	High
3	Learners can use the knowledge to extend for job creation.	4.19	0.74	High
Total		4.25	0.75	High

**developed by the author*

Table 7 displays the result of sustainability evaluation on the overall mean ($\bar{x} = 4.25$) and standard deviation (S.D. = 0.75). The top-ranked issue rated at a high level is learners can use the knowledge at work ($\bar{x} = 4.31$, S.D. = 0.77), followed by the learners are able to use the knowledge to extend for job creation also rated at a high level ($\bar{x} = 4.19$, S.D. = 0.74).

= 0.74). The lowest-ranked issue is learners can use the knowledge to effectively solve problems also rated at a high level ($\bar{x} = 4.14$, S.D. = 0.76).

Table 8 - Result of transportability evaluation

Item	List	\bar{x}	S.D.	Interpretation
1	Learners can transport the knowledge.	3.83	0.84	High
2	Learners can teach others at work.	4.00	0.76	High
3	Evaluation result of learners' competency leads to the improvement and development of appropriate competency-based curriculum.	4.00	0.76	High
Total		3.97	0.79	High

**developed by the author*

Table 8 provides the result of transportability evaluation on the overall mean ($\bar{x} = 3.97$) and standard deviation (S.D. = 0.79). The top-ranked issues rated at a high level are evaluation result of learners' competency leads to the improvement and development of appropriate competency-based curriculum, and learners can teach others at work (both with equal $\bar{x} = 4.00$, S.D. = 0.76). The lowest-ranked issue also rated at a high level is learners are able to transport the knowledge ($\bar{x} = 3.83$, S.D. = 0.84).

Table 9 - Result of overall evaluation with CIPP_{TEST} model

Item	List	\bar{x}	S.D.	Interpretation
1	Context Evaluation	4.05	0.85	High
2	Input Evaluation	4.05	0.85	High
3	Process Evaluation	4.03	0.81	High
4	Product Evaluation	4.11	0.76	High
5	Impact Evaluation	4.06	0.95	High
6	Effectiveness Evaluation	4.07	0.93	High
7	Sustainability Evaluation	4.25	0.75	High
8	Transportability Evaluation	3.97	0.79	High
Total		4.07	0.84	High

**developed by the author*

Table 9 shows the result of the overall evaluation with the CIPP_{TEST} Model suggesting the overall mean ($\bar{x} = 4.07$) and standard deviation (S.D. = 0.84). The 3 top-ranked issues rated at a high level are sustainability evaluation ($\bar{x} = 4.25$, S.D. = 0.75), product evaluation ($\bar{x} = 4.11$, S.D. = 0.76), and effectiveness evaluation ($\bar{x} = 4.07$, S.D. = 0.93), respectively. The 4 lower-ranked issues also rated at a high level are transportability evaluation ($\bar{x} = 3.97$, S.D. = 0.79), process evaluation ($\bar{x} = 4.03$, S.D. = 0.81), context evaluation and input evaluation (both with equal $\bar{x} = 4.05$, S.D. = 0.85), respectively.

4. Finding and Discussion

The TVET curriculum evaluation based on the CIPP_{TEST} Model among Vocational Education Institutions that participate in the high vocational innovation scholarship program under the EEF is summarized in the following.

Context evaluation revealed that the vocational education curriculum is a competency-based curriculum intended to enable actual practice. However, the result indicates certain issues rated lower than others which are the establishments / entrepreneurs involved in developing subject curriculum; and the number of credits of different courses in curriculum structure is appropriate. Input evaluation found that teachers/instructors' qualifications match the fields of study being offered; and the education plan for the entire curriculum is clear and appropriate, however, the issue rated lower is that the learners have fundamental knowledge ready to attend the program. Process evaluation suggested that the instructional management process promotes learners' characteristics according to the professional standards framework; there are diverse methods of measurement and evaluation; and curriculum management is clear and systematic. However, the issue that rated lower is that guidelines for enhancing learners' competency are clearly identified. Product evaluation reported that students have skills and ability at work; the graduates are employed or pursue a career of their field of study; however, the lower rated issue is students are equipped with 21st century skills such as language, communication, social adaptability, use of technology, creativity and innovation development. Impact evaluation showed that parents have trust in the quality of educational management; and students are recognized by community and society; however, an issue rated lower is students have competencies that match the demand of establishments / entrepreneurs. Effectiveness evaluation found that establishments/entrepreneurs are satisfied with the graduates; and learners develop a body of knowledge from hands-on practice in real situations; however, the issue found lower rated is every learner passed the tests of professional competency/ year-level competency/subject competency. Sustainability evaluation indicated that

learners can use the knowledge at work, and learners are able to use the knowledge to extend for job creation; however, a lower-rated issue is learners are able to use the knowledge to effectively solve problems. Transportability evaluation revealed that the evaluation result of learners' competency leads to the improvement and development of an appropriate competency-based curriculum, and learners can teach others at work. However, the lowest-ranked issue is learners are able to transport the knowledge.

Overall evaluation with the CIPP_{IEST} Model suggested that the 3 top-ranked issues include sustainability evaluation; product evaluation; and effectiveness evaluation, respectively. The 4 lower-ranked issues include transportability evaluation; process evaluation; context evaluation; and input evaluation, respectively.

Curriculum evaluation with the CIPP_{IEST} model generates insights that vocational education institutions can use to improve and develop the curriculum. It should be carried out systematically and continually by PDCA Cycle, to attain continuous quality improvement and specified standards. The finding related to Ekthamasut N. and Charonesrimaung S. (2022) said that the CIPP_{IEST} evaluation model is the most widely used assessment model because of its systematic form and collective dynamic of both qualitative and quantitative data from stakeholders through a variety of methods. Curriculum improvement and development using the results of a curriculum evaluation is an important and dynamic task, justified by the constant change in community and social contexts. The development of education quality with curriculum at the heart hence needs to follow the current social situation. Successful curriculum improvement and development requires the close cooperation and brainstorming of people in multiple sectors including academics, experts, personnel in educational institutions, establishments, professional associations, entrepreneurs as job owners, as well as the government and private agencies so that all involved will create a curriculum that helps enhance the competency of students meets the needs of the establishment.

This research results were consistent with Phunrassame C. and et.al. (2021) found that; context evaluation and the curriculum objectives were in accordance with the graduate curriculum standards. Input evaluation and content redundancy should be reduced. Process evaluation, the faculty members should develop teaching skills measurement and evaluation. Product evaluation, graduates with knowledge of Thai traditional medicine can create academic works. Impact evaluation, indigenous medicine should be added to allow graduates to practice a variety of professions by adding free elective courses or subjects used to teach indigenous medicine according to the Announcement of the Indigenous Healers Committee. Effectiveness evaluation, skill development and work efficiency of graduates should be improved to enable them to have leadership and supervise their subordinates. Sustainability evaluation, the curriculum or teaching should be improved to give graduates confidence in their work. People in the community are increasingly accepting and serving by increasing vocational training programs to give graduates more professional experience. Transportability evaluation, graduates should be encouraged to be lecturers in disseminating Thai traditional medicine knowledge to colleagues, service recipients and people in the community by adding them to the course or adding free electives to enable students to gain skills. The objectives of the curriculum or philosophy of the curriculum are set so that graduates have the skills that society needs. Furthermore, this research corresponds with the research of Kiniman K. and et.al. (2022) that used the CIPP_{IEST} Model. The research result found that context evaluation, input evaluation, process evaluation, product evaluation, impact evaluation, effectiveness evaluation, sustainability evaluation, and transportability evaluation all assessment results were at the highest level. These findings were related to a study by Klinsuwan P. (2020), that context evaluation is the most appropriate, especially the objectives and structure of the curriculum. Input evaluation is very appropriate, namely the quality of instructors and freshmen students. Process evaluation is the most appropriate in curriculum development, promotion, and development of students. Effectiveness evaluation is the most appropriate in the results from curriculum administration are as expected and the results are complete as expected as well.

In addition, educational institutions with leadership-oriented administrators can lead and inspire their personnel to work together successfully; and drive for the co-development of educational curriculum that fits the needs, proficiency, and social and cultural contexts of the local community where the institution is located. They can also establish collaboration among personnel and external agencies to participate in the management of education effectively, thus bringing about an innovative and unique curriculum for their educational institutions. Leadership is regarded as the most important factor required by all those administrators so that they can pool efforts in the organization. An organization with an academic leadership administrator will be able to continually improve for quality and up-to-date curriculum and instruction. In addition to leadership administrators, teachers and instructors also need to have an open-minded thinking and working process, that is, being ready to accept and learn new things; change for the better; face challenging work, problems and obstacles; work together to solve problems as teamwork; give respect and honour, provide assistance and support, and share in learning exchange among personnel including administrators, teachers, instructors and related persons. All of these are crucial factors that support the improvement, development, and change of curriculum to be effective and likely successful in a short time. This is because the mobilization of knowledge, ideas, intelligence, and experiences of each individual and sharing them with one another will enhance the knowledge and understanding among personnel, allow them to learn more about failure and success, and importantly provide supporting factors for innovative curriculum improvement and change as well.

Improvement and development of the curriculum adopting the result of the curriculum evaluation took 4 stages as suggested by Patphol M. (2018) as follows. Stage 1: Raising awareness which includes promoting the recognition of the importance of change, creating inspiration and desire for change, creating interest and need for change, and seeking

cooperation for change. Stage 2: Planning for change which includes seeking a change approach from stakeholders and experts; developing a plan for change in accordance with the evaluation results; assessing the propriety and feasibility of the plan for change; building a consensus on implementing the change; piloting a trial for change as per the plan; and evaluating to expand the scope of change. Stage 3: Acting for change which includes operating the change by the specified approach and plan; monitoring the change periodically; improving the change operation based on the evaluation results; and learning exchange about the results of change operation on a continuous basis. Stage 4: Evaluating change which includes reviewing the success of the change operation; transcribing lessons learned from the success of the change operation; and learning exchange about maintaining quality consistently.

Since teachers and instructors have the status of the ones who both develop and manage to use the curriculum, they play a uniquely important part in the process, contributing profoundly to the success and failure of the curriculum being developed. After the evaluation of the curriculum, they can make improvements to the curriculum on the subjects or on the learning units so that the curriculum may better correspond to the needs of society. They can also equip learners with improved knowledge, abilities, competencies, and desirable characteristics to catch up with changing social contexts. To improve the subjects or learning units, teachers and instructors can follow the following procedures (Patphol M., 2018). First, analysing the learners' learning outcomes for the subjects or learning units needed to be improved by pointing out the weak points or issues that need improvement such as instructional management process, evaluation, media, etc. The need of learners for what type of learning they prefer and what their cognitive style is. The learners' ability level for the extent of their learning potential; what their strengths are, and what their limitations in learning are. The quality of the learning process whether in the past teachers and instructors have used an effective learning process; the extent to which the learning process used by the learners is suitable; and the extent to which the learning process matches with the different types of main substances. The quality of media, materials, equipment, and learning resources for the extent to which they correspond to the content, learning process, and the needs of learners. The quality of learning measurement and evaluation for the extent to which they can provide sufficient and quality information to be used for learner development; whether the measurement instrument is of quality; the extent to which the measurement process and reflection bring about learners' learning and development. The social and cultural contexts influence learning whether and the extent to which the learning accords with the context and which parts need to be improved to better accord with the social and cultural context. Second, improving the subjects or the learning units to comply with the analysis results and having quality tests with appropriate methods. The last one, using the improved subjects or learning units for teaching and learning management along with continual evaluation and improvement.

In addition, educational institutions can also develop additional subjects on related vocations that match the needs of various localities and communities, with the following procedures. Investigating and analysing the needs of learners about the desire for developing potential and excellence in local vocations that are relevant to the contexts of educational institutions and community, using diverse methods including a survey of learners' needs, and learner interviews, for example. Drawing up vocational subjects corresponding to the locality and meeting the needs of learners based on the principle of participation among teachers, instructors, parents, and the community. The subjects are composed of subject title, number of credits, class schedule, subject descriptions, subject structure, learning outcomes, content, learning management plans, measurement and evaluation, media, and learning resources, and passing criteria. The subject quality is examined by individuals who have knowledge and experience in the profession of subjects provided. Integrating the subjects being developed into the curriculum of educational institutions as approved by the Vocational Education Commission. Producing a competency learning plan that complies with the subject structure and comprehensively contains key components, namely: learning outcomes, content, learning activities, learning media and resources, measurement, and evaluation, including a valid evaluation tool. Implementing learning management by focusing on hands-on practice rather than learning from books or documents to ensure that the learners develop skills, competencies, and abilities in the profession they learn; emphasizing creativity rather than copying; performing progressive evaluation and authentic evaluation of learning outcomes and using the evaluation results to develop learners. Performing summative evaluation and making judgments of the learning outcomes by focusing on the learning outcomes of vocational skills, competencies, and abilities, including good work habits and work ethics of learners. Submitting a report of learning outcomes at the semester end to the academic section of the educational institution along with a report of learning outcomes of other subjects.

5. Conclusion and Recommendations

The current vocational curriculum used by educational institutions must be improved for use in the year 2024. Therefore, the results of the curriculum evaluation with the CIPP_{EST} Model should be used as a basis for improving the curriculum that will occur in the next year. What must be done in conjunction with curriculum improvement is teacher development for maximum efficiency in teaching and learning management. In this regard, there should be an enterprise to participate in the improvement and development of the curriculum as well, because it is the production of graduates that meet the needs of the establishment. Improvement of learning styles and standards should be improved to comply with the project objectives. Establishments should place importance on student's vocational training by such as providing coaches, and the government should provide support by introducing tax deductions for the expense per person receiving students in practicum. Curriculum development must be consistent with bilateral education management in enterprises, that is,

teaching and learning management in educational institutions must be able to develop basic competencies of learners before receiving professional training in the workplace. Excessive subject content should be adjusted and reduced, especially in theoretical subjects to offer sufficient academic knowledge and focus more on practical content to enable actual practice. With the rapid change in the world situation, the curriculum should be constantly improved and up-to-date and should match the demand of the labour market.

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