

# AN INTEGRATION OF PROGRAMME EVALUATION AND ACTION RESEARCH ON A PRELIMINARY PROFESSIONAL DEVELOPMENT TRAINING IN VOCATIONAL SCHOOL

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## Abstract

A successful professional development initiative, such as a training session, is one of several strategies that encourage school staff to gain more knowledge and skills and that enhance work performance. Evaluation is used to assess training achievement compared to the programme's objectives. This study attempts to implement the planning, observation, action, and reflection process for a professional development training programme and to evaluate participant satisfaction with the context, input, process, and product of the programme. Data were collected using in-depth interviews, surveys, and observations. The overall result showed that participants were highly satisfied with the training programme. However, participants noted that the training should have included more time for them to practise and apply lessons learned from the programme to their real work under the guidance of a mentor. All results demonstrated a possible decision to continue with future training workshops and revealed recommendations for improving the quality of the programme.

Keywords: action research, training programme, programme evaluation, professional development

## INTRODUCTION

Professional Development (PD) is a concept accepted by many professions. According to Cambridge University Press (2017), PD is “training that is given to managers

and people working in professions to increase their knowledge and skills”. PD is also known as staff development, in-service training, professional learning, or continuing education. Other definitions of PD involve improving and increasing a staff's capabilities through in-

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house or outsourced education and training or through observing job performance. The goals of PD are to build and maintain morale and to attract higher-quality members to an organisation (WebFinance Inc., 2017). Professional training can be voluntary; staff may continuously seek new knowledge to gain approval from management or from professional accreditation organisations. It can also be involuntary and necessary for maintaining job security (Mizell, 2010).

In education, school systems change to meet government policy. The school director thus needs to have a vision to encourage his/her staff to meet school policy as well as the government's requirements. This is where professional development becomes necessary. Professional development is about how teachers learn to transform their knowledge into practice for the benefit of their students' development (Craig, Meijer, & Broeckmans, 2013). Formal PD includes any learning activity, such as attending a conference, seminar, workshop, or collaborative learning session with colleagues, whereas informal professional development covers independent research and reading, observation of a colleague's work, discussion among colleagues, or learning from peers (Mizell, 2010). In addition, an ongoing staff development programme can help promote community and connection among schools, organisations, and other collaborative agencies and enhance and sustain understanding and knowledge of learning environments (Kimberling & Wantland 2002).

Professional development has been used by education systems in many countries, including vocational schools in Laos. The Department of Technical and Vocational Education, the Department of Higher

Education, and the Ministry of Education and Sports have supported managers, administrative personnel, and teachers at technical and vocational education and training institutions in upgrading their technical and pedagogical skills and knowledge. This is especially true in information and communications technology (ICT) development related institutions working to meet the skilled workforce standards by 2020 (Soysouvanh, Khammounty, Virivong, Phoumilay, Elsholz, & Bohlmann, 2013). To meet this need, the Laos government allocates teacher credentialing block grant funds to link professional development funding and districts' staffing needs to improve teaching and learning (Legislative Analyst's Office, 2005). Improving vocational teachers' training and qualifications to provide sufficiently skilled workers to the labour market is imperative. Dongkhamxang Agriculture Technical School (DATS) in Vientiane is one of the vocational schools in Laos striving for educational development. The school has a policy of improving its staff and many aspects of the school itself to meet national education policy. Together with the support and vision of the school director, all staff are encouraged to enhance their work performance, knowledge, and skills through life-long learning and associated practice. One proposed project is to conduct a continuing staff development training programme for the school's teachers and administrative staff. Usually, training is performed by sending the staff out to public or private seminars or workshops. However, such an approach often has its expected learning outcomes restricted by cost overruns, distant venues, inconvenient training periods, irrelevant topics, or excessive numbers of attendants. Additionally, many workshops

focus more on the theoretical knowledge base, meaning that there is more listening and less practising. To overcome these problems, DATS officials requested a training session, performed by outsourced professionals and accompanied by an evaluation, to simultaneously train internal staff and assess the effectiveness of the training programme. The evaluation is particularly important for guiding feedback on the session and recommendations for any future training needs

This projects main objectives were to develop a staff development training programme and evaluate its value in terms of adding to the staff's capacity. Any problems and suggestions occurring during the training would be noted and used as part of the evaluation, which can be used to guide the development of future training programmes. The entire project was visualised with an integrated model of the needs and activities and the relationships among various elements in the activity

### **Programme Evaluation**

Decision orientation is used to decide whether a programme should continue based the programme's current achievements. A programme evaluation helps guide decision making by evaluating how successful a project as a whole is (Zidane, Johansen, & Ekambaram, 2015). Evaluation can broadly be defined as a systematic process of information gathering and interpreting to assess the implementation of objectives (Neyazi, Arab, Farzianpour, & Majdabadi, 2016). The evaluation can relate extensively to the other concepts as follows (Stufflebeam 2000, p. 26):

- modernity to post-modernity

- rationalistic to naturalistic
- elementalistic/reductionist to holistic
- meta-narratives to no such thing as meta-narratives
- prediction to illumination
- knowing to feeling
- control to empowerment
- knowledge producing to experience producing
- evaluative inquiry to evaluative technology
- measurement/quantification to qualitative description
- proof of persuasion
- evaluator makes judgement of merit or worth to client makes such judgement

Evaluation models vary depending on the objectives, purposes, outcomes, and stakeholders involved. In particular, programme evaluation requires information about activities, characteristics, and outcomes in order to judge programme effectiveness and make decisions about related future events (Patton, 1997). Daniel Stufflebeam's context, input, process, and product (CIPP) model from 1960 is widely accepted, particularly in education, for programme or project evaluation (Neyazi et al., 2016).

### **Context, Input, Process, and Product Model**

The CIPP evaluation model is a process of explaining and using crucial information about some object's goal, design, implementation, and impact to make a decision, respond to a need, and to promote understanding of the involved phenomena (Stufflebeam & Shinkfield 2012). The CIPP

model involves conducting both formative and summative evaluations of organisations, programmes, projects, persons, products, and policies (Stufflebeam, 2003). It is adaptable and suits diverse users, including evaluators, policy groups, developers, programme specialists, committees or task groups, researchers, leaders, administrators, and lay persons (Stufflebeam & Coryn, 2014). Each of the CIPP components has its own evaluation criteria, as discussed in the paragraphs below.

**Context evaluation** is the development of a project plan with measurable objectives to achieve certain goals (Wei, Kuo, Lin, & Yang, 2012). This step assesses needs, problems, assets, and opportunities within defined environments (Stufflebeam, 2000) by using a variety of measurements and various types of analysis. Methods may include checklists to collect data about relevant history and interviews to obtain key stakeholders' views of strengths, weaknesses, and problems to generate additional hypotheses about what changes are needed (Stufflebeam & Shinkfield 2012) when developing action plans.

**Input evaluation** refers to the strategies, operational plans, resources, and agreements for proceeding with a needed intervention (Stufflebeam & Coryn 2014). A project's input evaluation should, in the process phase, consider necessary changes, barriers, constraints, and potentially available resources within the input's environment (Stufflebeam & Shinkfield 2012). It requires methods such as a literature searches, visits to exemplary programmes, pilot trials, and ideas from teachers in the field to discover the appropriate changes and feasible solutions (K.-H. Tseng,

Diez, Lou, H.-L. Tsai, & T.-S. Tsai, 2010).

**Process evaluation** involves monitoring and documenting an intervention by inspecting work flows, observing and recording notes on activities, providing feedback, and interacting with participants (Stufflebeam, 2000). The objective is to ensure that the participants accept and understand their roles and carry out activities as planned so that the evaluators can properly adjust the programme. The output of the process phase can result in the problem resolving (Tseng et al., 2010).

**Products evaluation** is used to assess a programme's implementation (Frye, 2012) and whether its achievements meet its goals. It focuses on any differences between the program's achievements and goals, identifies intended and unintended outcomes, (Stufflebeam, Madaus, & Kellaghan, 2002) and discriminates between the effort's positive and negative outcomes (Stufflebeam & Coryn 2014). Post-assessment is important for determining the extent to which the stakeholders met the objectives of the context and input procedures. Methods for process evaluation include administering surveys, post-programme interviews, or focus group interviews (Zhang, Zeller, Griffith, Metcalf, Williams, Shea, & Misulis, 2011). The final procedure of the evaluation is to decide if the programme should be continued, terminated, or modified (Tseng et al., 2010).

### **Action Research Paradigm**

Bell, Cheney, Hoots, Kohrman, Schubert, Stidham, and Traynor (2004) differentiated the terms action research, participative research, and participatory action research. Action

research is a paradigm that focuses on improving practical capacity rather than theoretical knowledge. It includes myriad terms, such as participatory action research, participatory research, community-based participatory research, and other forms of participative inquiry (MacDonald, 2012). Action research applies to both individual and team performances. Participative research is a method that creates environments and processes of understandable and actionable learning. All organization members are encouraged to participate in collaborative activities to meet objectives. Participatory action research (PAR) is a subset of action research (MacDonald, 2012) and combines elements of action research and participative research to advance theory and improve practice.

Kemmis and McTaggart (1988, p. 1, cited by Kemmis 2011) define action research as “a form of collective self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own social or educational practices, as well as their understanding of these practices and the situations in which these practices are carried out”. In other words, action research is practical research undertaken by stakeholders to make changes and improvements to any process of interest (Coats, 2005). In education, action research can positively contribute to the professional development training of teachers, particularly to their pedagogical effectiveness, and can bridge daily educational practice and broad academic theory and research (Magos, 2007). Although there are many kinds of action research and although different terms are sometimes used to refer to action research, the paradigm’s two universal features are the

capacity of people working within particular settings, and the desire of participants to improve practices within their settings (Kemmis, McTaggart, & Nixon, 2013). The action research cycle advocated by McTaggart (1994) has participants develop plans based on reflection, implement the plans into action, observe the action in a systematic process, and evaluate the actions through self-reflection. The action research cycle is further discussed in the paragraphs below.

**Plan:** Planning, the initial step taken to address a research topic, considers resources, time, scope, and quality of the project (Heinze, Fletcher, Rashid, & Cruz, 2016). The common questions in the planning phase are “what needs to be investigated?” and “what data will need to be collected?” Therefore, action research begins by identifying a research problem and the appropriate corresponding research action(s). Planning helps to highlight a need arising from stakeholder’s objectives or an organization’s requirements that can be addressed through action research.

**Act:** Action is an operational stage that involves implementing activities as planned and managing the project-related risks (Heinze et al., 2016). However, the action stage may revert to the planning stage if the performance is unacceptable (Rose, Spinks, & Canhoto, 2014). Thus, this step should have feasible output goals and be flexible in case any unforeseen circumstances arise.

**Observe:** The performance should be monitored and observed to determine any proposed actions that can or cannot be implemented by the plan (Rose et al., 2014). Observation may include noticing the

participants' performance on form-oriented tasks, recording responses to any relevant occurrences, or interviewing people for ideas, concepts, perceptions or feedback for further analysis.

**Reflect:** Reflection follows action and observation. This stage covers analysis, synthesis, interpretation, explanation, conclusion (Kemmis & McTaggart 1988: 86; Rose et al., 2014), and an evaluation of effectiveness (Heinze et al., 2016). In the reflection stage, what has been done and how this impacts the final product is reviewed. The results of this reflection indicate the outcomes and strategies needed to continually progress in the future (Coats, 2005) or, more specifically, in the next iteration.

## MATERIALS AND METHODS

This study integrates the action research cycle covering planning, action, observation, and, reflection (PAOR) method with the CIPP model to create a preliminary professional development training programme, modelled in Figure 1. The concepts of PAOR and CIPP are similar. While PAOR is known as a process of action research, CIPP is learning by doing to correct any mistakes, invent and examine new procedures, and retain and incorporate especially effective practices (Stufflebeam & Coryn, 2014). In addition, the importance of PAOR includes both action and reflection that lead to enhancing practice (Coats, 2005); the CIPP model needs multiple perspectives from all relevant people and uses a mixed methods research design. Both CIPP and PAOR are exercised through surveys, in-depth interviews, observations, participatory research initiatives, and the triangulation

procedures to assess and interpret a multiplicity of information (Stufflebeam, 2003). The integration and corresponding implementation of the PAOR and CIPP are discussed below.



Figure 1. The integration of POAR action research and CIPP mode

### Planning

The plan to gain further insight into the needs, assets, and any potential problems of the programme was outlined and developed. At this stage, the context evaluation was determined. This research started with identifying the assets, as well as the background information and the current situation, of the school with the intent to contribute to this training programme. At the very first stage, data were gathered by interviewing all the key

stakeholders, which were the school director, the programme leader, and the participants, to discuss their opinions on the beneficiaries' needs and to identify any strengths, weaknesses, and needs of the programme. Additionally, a review of the government's policy on staff development and training, as relevant to education, was undertaken. As mentioned earlier, the school has a policy of improving the quality of staff not only to meet the national standard but also to be a competitive vocational school. DATS staff members were also urged to improve their capacity with the support of the school director. Training was one of several techniques used to enhance staff work performance.

One stakeholder gave an opinion of the past training sessions:

*“Feedback from our staff on past training sessions demonstrated a low satisfaction and resulted in unachievable learning outcomes. Many private and public training agencies set up the workshops only to suit the organizer's convenience and objectives. The sessions did not fulfil attendees' needs. These trainers concentrated more on theory and less on practice. These problems are in addition to training cost overruns, distant training venues, inconvenient training periods, and excessive numbers of attendants.”*

Another stakeholder commented on the interview process about the performance of the staff that was trained that

*“The staff's competency remained mediocre. Teaching and administration work were still unremarkable. Most of the trained staff still had difficulty in*

*implementing the training topics into their work because the circumstance at work was different from the training.”*

Another participant offered an opinion:  
*“Many workshops had limited resources; the attendees had to share the tools and training devices. Some of them did not have a chance to use the equipment.”*

Another participant's opinion:  
*“Many tools used in the workshops were different from those attendees use in their workplaces; we used their tools for the training purpose only. The budget did not allow us to supply our school with equipment similar to that used at the training.”*

As a result of the dissatisfaction with past training sessions, stakeholders requested the hiring of outsourced professionals to perform training sessions and requested that these professionals simultaneously evaluate the effectiveness of those training sessions and thus gain recommendations for any future training needs.

The training programme was carried out with a group of 24 DATS staff, consisting of 17 teachers, three administrators and technicians, and four department heads. Most participants had been working at the school for less than five years. All of them willingly wanted to attend the training programme to gain working skills. The participants completed a questionnaire about their background information and wrote about their skill training needs and expectations of the training. They also stated preferred and

presumably convenient dates and times for the training and listed other related needs such as computer hardware and software.

The next step was to implement the input evaluation under the planning procedure. As explained earlier, the input process began with reviewing relevant literature and exemplary programmes. The needs analysis found that IT training, particularly training related to search engines, group emailing, file sharing, data privacy and Internet security, online media and related channels, and web design, was considered by participants to be the most important training topic as they believed IT to be useful for teaching and administrating. Further study from the interview found that most staff had limited knowledge of IT, although six of them graduated in IT relations. All of them had their own computer at home but they hardly used IT applications in their work apart from Microsoft Office 2010 programmes such as Word, Excel, or PowerPoint. They were more comfortable with going online and using social network applications, such as Facebook, and some other applications, like YouTube. Google was widely used to browse for any content of interest. Participants were more comfortable playing with their mobile phones and accessing social network and chat sites via mobile applications, such as LINE. The most suitable time for training was during a school holiday period, when most staff were available. In this study, the training budget was excluded because it was covered by the school. After collecting and analysing data, experienced and qualified IT trainers, who are lecturers at a university, prepared content, training activities, documents, and a post-training questionnaire. The workshop also required facilities for the training, equipment and peripheral devices,

technical assistance staff provided by the school, and the existing knowledge and skills of the participants. The participants believed that by having the training done onsite at DATS, real work situations could be better envisaged and participants could be trained on the actual equipment that they would be using in such situations. Therefore, the workshop happened in a meeting room at the school where all required equipment had been set up. All participants prepared their own laptops so that they could practise and utilise acquired and refined skills on their own machines during leisure time, which could increase participants' confidence and comfort.

### **Action**

Actions were taken as planned. The six topics were covered from 9:00 a.m. to 4.30 p.m. over the course of five days. Trainers sequentially proceeded from the simplest and shortest content to the most complicated and lengthy. Each topic was explained and demonstrated and each participants had to work on his/her own computer to follow the instructions. After that, tasks were assigned both to individual participants and to groups of four participants. Staff were encouraged to work autonomously as much as possible by following the provided documents and implementing all the learned techniques to solve the problems. The trainers stood by closely to assist the participants with any complex issues. For the first four days of the training, the participants had to show their completed tasks to the trainers for assessment. On the fourth training day, the trainers assigned a project to the class. The project required brainstorming and utilising all the workshop topics to create ideas for the final output. During the afternoon



session on the fifth and last day of the training, all groups had to present their projects to the trainers, school director, programme leader, and special observers, including representatives from the Ministry of Education and Sports and from the Lao Education Newspaper. Each presentation was 20–30 minutes. Every group member had to give a presentation on his/her portion of the project, and presentations discussed the benefits of implementing a certain task into the real DATS work environment. The success of these presentations was the completion of the tasks using computer as assigned. All participants concentrating and integrating their creativity to complete the tasks assigned during the training days was a result.

### **Observation**

During the training, the trainers and evaluators monitored and observed all participants during both individual and team activities. All responses from the participants were recorded. At the same time, the trainers addressed all of the participants' inquiries. A discussion period was scheduled at the end of each day to ascertain the programme's progress and identify any queries or problems that occurred. The trainers observed, took notes, gathered all the participants' assignments, and summarized the progress report. The observation results showed that, if they had a document that provided clear, step-by-step guidance and useful searching techniques, the participants would try their best to perform tasks individually before asking their friends or the trainers for assistance. Participants stated that they felt more confident working on their own computers as they were able to configure the computer systems,

manage files, and better familiarize themselves with troubleshoots. Participants who had passed a given task would tend to help other classmates as needed. The daily class discussions after the training allowed the participants to feel more relaxed and comfortable with sharing their learning experiences and problems and with seeking advice from the trainers and evaluators. The group project stimulated improved cooperation.

### **Reflection**

The product evaluations began when the participants showed their final products and explained their work to their peers. The reflection from this research involved participants' practical skill enhancement and positive feedback on the training. The trainers provided opinions and feedback to the participants regarding their project presentations and their future contributions. Each participant provided opinions and feedback on the training. Comments from the school director and the programme leader addressed the expected learning outcomes and proposed ideas for future training programmes. To ascertain feedback, the participants completed a post-training questionnaire with five Likert-scale questions that covered the CIPP elements: training objectives, contents, facilities, training activities, trainers, and stakeholders' needs and satisfaction with the programme. Open-ended questions were attached to obtain more insightful comments and recommendations for the next training session. Besides the qualitative methodology used in the previous steps, statistical analyses, including a descriptive analysis, a mean analysis, and a standard deviation analysis,

were implemented to assess the evaluation. The results will be illustrated below.

## **RESULTS AND DISCUSSION**

Post-training evaluation is an important tool for reflecting on professional development training and its achievements. Feedback from all stakeholders is important for deciding whether to hold and how to improve future training programmes. The results in Table 2 illustrate the satisfaction and perceptions of the participants after finishing the DATS training programme.

In the context evaluation, the training topics met the training needs of the participants at a high level. The participants were satisfied with the training topics because these topics had been proposed by most participants ( $M = 4.71$ ,  $SD = .55$ ). Because the participants were not certain about what the government policy was, how well the training objectives met this policy received the lowest score ( $M = 4.04$ ,  $SD = .807$ ). Additional opinions from the school director and the programme leader reflected satisfaction that the topics were related to ICT, which met the school policy and the government policy.

In the input evaluation, the item asking whether the trainers capably disseminated knowledge and demonstrated contents in sequence received the highest mark ( $M = 4.52$ ,  $SD = .593$ ). Feedback from the participants, and all observers revealed that all the trainers had high levels of knowledge and skills, and could explain, demonstrate, and assist with any queries from the participants. On the contrary, the appropriateness of the training duration received the lowest score ( $M = 3.36$ ,  $SD = 1.05$ ). Training needed more time than expected. All the stakeholders

agreed that the duration of the programme should have been approximately two weeks so that the participants could gain more knowledge, skills, and confidence and could have their own time to practise and get support from the trainers. The item on training equipment received the second lowest score ( $M = 3.55$ ,  $SD = .671$ ). All the computers, electricity, Internet connection, and peripheral devices, such as routers, electricity outlets, projectors, microphones, and speakers, were provided by the school as requested by the trainers. The school facilities and the participants' laptops were not in good condition, however, and could not be used continuously throughout the training. Some laptops had not been upgraded for a long time and some were old models. Technical problems, such as power shortages and delays due to slow Internet access or Internet disconnections, disrupted the training.

In the process evaluation, most participants agreed that the training activities were interesting ( $M = 4.30$ ,  $SD = .56$ ). However, they were least satisfied with the plan of the activities ( $M = 3.95$ ,  $SD = .74$ ). There were many disruptions throughout the training. The activities on the schedule needed to be changed and reallocated to ensure the training continuity until its completion. One example was the power shortage on the first training day. There was no power backup or generator onsite, so the trainers had to use a whiteboard for the rest of the day to teach participant about search engine commands, group email set up, and how use smartphones to search for content, self-record and edit videos, and upload videos onto the Internet. The most repetitive problems found during the last four days were laptop instability and Internet disconnection due to an outdated

**Table 1** The Mean and standard deviation of post-training evaluation categorized in CIPP elements

Questionnaire items	Mean	Standard Deviation
<b>Context Evaluation</b>		
a) Training topics met the training needs	4.71	.550
b) Training programme objectives met the school policy	4.38	.647
c) Training programme objectives met national government policy	4.33	.482
<b>Input Evaluation</b>		
a) Document is useful and helpful for the readers during the training and (self-paced) self-practice training after finishing the programme	4.25	.608
b) Media used during the training helped participants to follow and understand easily	4.30	.635
c) Contents were organised sequentially and were easily understood by the participants	4.04	.751
d) Trainers were capable in disseminating knowledge and demonstrating the contents in sequence	4.52	.593
e) Trainers gave participants the chance for queries and could answer the questions clearly	4.32	.716
f) Training room was appropriate	4.45	.671
g) Training equipment was ready to use	3.55	.671
h) Training duration was appropriate	3.36	1.05
<b>Process Evaluation</b>		
a) Training activities were interesting	4.30	.560
b) Training activities were organised as planned	3.95	.740
c) The assignments were appropriate	4.04	.807
<b>Product Evaluation</b>		
a) After the training, the participants have gained knowledge	4.14	.560
b) After the training, the participants were able to utilise their knowledge in real work environments	3.86	.710
c) Feedback from the trainers was useful	4.08	.717

router with limited bandwidth. The Internet-based problems were addressed with a spare router prepared by the trainer, the use of a mobile hotspot, and USB WIFI device for the Internet connection.

In the product evaluation, most participants believed that they had gained more knowledge after the training ( $M = 4.14$ ,  $SD = .56$ ). In contrast, they felt least satisfied with their certainty in implementing the knowledge obtained from the training into their real work ( $M = 3.86$ ,  $SD = .71$ ). Two reasons for this are the brevity of the training and the fact that it was held during a school holiday, so participants could not immediately apply their knowledge to their work. In addition to the product evaluation, the trainers provided all participants with feedback, based on the appeal, creativity, teamwork, and overall demonstration, on their presentations. The feedback from the school director and the programme leader was complimentary. The overall positive nature of the feedback reflected the participants' dedication, effort, eagerness, and effectiveness during the programme.

### **Limitation of the Study**

Although the results indicate an overall successful training session and a possible future training sessions, there were some limitations that affected this preliminary training. First, the preparation period was short. This training programme was undertaken in a foreign country, so more preparation time could have resulted in more effective training. Second, the school is located in a region where IT infrastructure is often unreliable. A thorough inspection should have been done by a trusted person or agency and any problem should

have been reported prior to the workshop. Having fewer technical problems would have helped the programme to stay on schedule. Third, the size of the population was limited; the result of the training project might be different from the large group of trainees.

### **RECOMMENDATIONS**

This study is limited, yet it provides insights into the key goals of evaluating the training programme and deciding whether future training programmes would be useful. The following are recommendations:

#### **Context Evaluation**

1) Staff development policy and systems (International Labour Office, 2011) need periodic revision to effectively link with school improvement plans (Kimberling & Wantland, 2002) and government policy. Regular improvement can support the school's teaching, learning, training, administrating, and systems management missions more efficiently and effectively.

2) School staff in all divisions should be informed about all policy updates, especially in professional development. Management should also ensure that staff understand and acknowledge any changes and feel engaged in training provisions.

3) For performance improvement, a professional development programme should be offered to all staff.

#### **Input Evaluation**

1) Participants in the training programme could be divided into groups, with each group composed of participants with similar work

experience, knowledge, and skills. Participants could also be divided based on the training topics that interest them most.

2) A school's basic infrastructure and IT resources should be regularly upgraded and maintained.

3) The training duration could be longer so that participants have sufficient time to utilise and implement knowledge and skills during post-training periods when trainers and mentors are available for consultation.

### **Process Evaluation**

1) The training activities could be more relevant to real work or participants' responsibilities. This relevance can bridge the gap between the world of learning and the world of work (International Labour Office, 2011).

2) Redundancy and contingency plans should be made in case disruptions or interferences occur during the training.

### **Product Evaluation**

1) Trainers should offer encouraging and guiding strategies for utilising knowledge and skills not only for educational and work applications but also for leisure-time use. This would enhance participants' skills and experience and help them gain more confidence in their work performance.

2) Pre-tests and post-training evaluation could be used to provide a more quantifiable and explicit assessment of the training session's effectiveness.

### **CONCLUSION**

The integration of programme evaluation and action research into a preliminary

professional development training programme for a vocational school was conducted to engage participants and to help them enhance continually their knowledge, skills, and work performance. The PAOR approach and CIPP model were used to construct the training programme and to evaluate information based on the relevant elements. All of the key elements within the integrated plan are necessary for creating effective and successful future training programmes.

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