

The School Health Service Program Evaluation using CIPP Model

Sununta Srisiri^{1*}, Suthira Muangnapoe¹, Thanma Laipat¹, Rapeepat Srimala¹,
Pongsatorn Sukityarn¹

¹Faculty of Physical Education, Sports, and Health, Srinakharinwirot University, Thailand

*Corresponding Author: sununts@m.swu.ac.th

Abstract. Objective: To make an evaluation on the program conducted by the School Health Service Program in health screening and life safety using the CIPP Model developed by Stufflebeam. Methods: In this research, the quantitative and qualitative design with case study at Health Education department, Srinakharinwirot university, Thailand. The participants were the staff and students from departments that had implemented the School Health Service (SHS) Program in health screening and life safety. The data collection was from the interview and questionnaire. The data analysis used the descriptive and qualitative data analysis software. The steps in analyzing the data used the methods in the grounded research. This study described the SHS program seen from its context, input, process and product (CIPP Evaluation model) from the staff' and students' experience and perspective. The context was described from the effectivity of the program, while the input took the point of view from the quality. Results: The process was to reveal the program implementation and the product described the achievement of the goals. Conclusion: The School Health Service (SHS) Program helps improves staff and students to gain skill practice in health screening and life safety. Health Education department should encourage the students to learn and practice from direct experience to become quality health promotion leaders.

Key words: Health Service Program; CIPP Model; Evaluation

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INTRODUCTION

The philosophy of our programs at the Faculty of Physical Education, Sports, and Health (PESH), Srinakharinwirot University (SWU), Thailand is based on the "Service-Learning Approach," an educational approach that combines community service with academic instruction and reflection. Students who participate in service-learning provide community service in response to community-identified needs and learn about the connection between their service and their coursework. Service-learning (SL) can involve direct, indirect, or advocacy service, and can be applied to any discipline. These activities identify concerns from which students can learn connections and responses to service and academic coursework as well as a role of themselves as citizens. The key components of SL are reciprocity and reflection (Toosi, et al., 2021). An assurance exists that these experiences are mutually beneficial to the giver and to the receiver. Therefore, we set up the school health services program to fulfill our philosophy and bring these personal experiences for our health education major college students.

The school health service program is considered an enjoyable and favorable experience for participants, capable of enhancing their personal development. This program is designed to minimize health barriers to learning for our health education major college students in primary school. It provides basic health services such as health screening, life safety in school, and emergency care to pupils in primary school. In this perspective, school health service program can be effective strategies to improve the care provided by health teachers in student care and the quality of health services (Mata et al, 2021).

In addition, the school health service program aims to enhance the college students' learning, creativity, willpower, emotional intelligence, social communication skills and critical thinking. The program provides basic health services such as health screening, life safety in school, and emergency care to pupils in primary

school. The theme of the project is “health screening and life safety in school”, which provides opportunities for students to learn and practice these topics. The rationale of the project is to increase the health education major college students’ confidence and self-efficacy by conducting leadership training and performing volunteer services. The program lasts for 16 hours / 2 days, with 4 hours for practice at Banklong 22 School.

Evaluation is an essential part of the educational system. It is the gathering of information for decision-makers with the aim of determining the competence and value of a subject, achieving better policies, operationalizing the subject, and improving the quality of performance in the subject (Mosleh-Amirdehi, Neyestani, Jahanian, 2017). Therefore, evaluation is one of the most important tools for determining the quality of any program, which can lead to reformation, revision, or termination of programs.

Many evaluation designs and models have been used for evaluating the projects, programs or working of institutes, but to the best knowledge of the researchers, most studies in programs have been done to prove the achievement of predetermined goals in an educational program, while the CIPP model aims to help improve the quality of an educational program rather than documenting the achievement of goals (Gandomkar & Mirzazadeh, 2014). The CIPP model is an evaluation model for curriculum evaluation given by Stufflebeam in 1983. It includes four elements: C- Context, I- Input, P- Process and P- Product. This model can be effectively used for evaluating the quality of programs. Context includes the goals, objectives, history and background of the program, inputs refer to material, time, physical and human resources needed for effective working of the school. Process includes all the teaching and learning processes and product focuses on the quality of teaching learning and its usefulness and the potential that benefit society (Toosi, et al., 2021).

Stufflebeam and Zhang referred to the CIPP evaluation model as a cyclical process that focuses more on the process than on the product, and the most important goal of the evaluation, he maintained, is to improve the curriculum or the educational program (Frye & Hemmer, 2012). In addition, studies have indicated that the CIPP evaluation model covers all stages of revising an educational program, which is consistent with the complex nature of programs. This model provides constructive information required to improve educational programs and to make informed decisions (Frye & Hemmer, 2012). The CIPP model does not only emphasize answering clear questions, but it also focuses on the general and systematic determination of the competencies of program.

In this study, the researchers, who are lecturers and responsible for the course of health education major college students, aim to fulfill students to gain more experience and become a good health education teacher. Therefore, they would like to evaluate the school health service program for college students by using the CIPP Model to identify strengths and limitations in content or delivery, improve program effectiveness, or plan for future programs. Moreover, to ensure that the desired goals are met, an evaluation to a program is an extremely important step in the entire process of conducting a program so that the people in authority has the bases whether to continue or bring any necessary revisions in the program.

The main purpose of the present study is to make an evaluation on the program conducted by the School Health Service Program in health screening and life safety using the CIPP Model developed by Stufflebeam.

METHOD

Participants and design

In this research, the quantitative and qualitative design with case study at department of Health Education, Srinakharinwirot university, Thailand. The participants were the staff and students from departments that had implemented the School Health Service (SHS) Program in health screening and life safety. This study is educational evaluation type based on the CIPP model in March 2023, and the data were collected cross-sectionally.

The participants were the staff (12 people) and college students (27 persons) from health education departments that had implemented the School Health Service (SHS) Program in health screening and life safety.

The data collection was from the interview, observation check list, and questionnaire.

Tools and Statistical Analysis

This study consisted of three tools such as questionnaire, semi-structure question for interview, and the observation behavior check list. See the details in table 1.

(1) The questionnaire of this study was derived and adapted from the questionnaire of Abdi et al. (2013) and the questions suggested by Stufflebeam for collecting information in the CIPP model (2007). This questionnaire was investigated by the research team and their items were modified according to this research,

and the main evaluation questions in each domain of CIPP model were designed according to the principles of CIPP evaluation model.

The CIPP questionnaire consisted of two sections: the first section included demographic information such as closed questions i.e., gender, status; The second section was designed in 4 areas: CIPP and included questions that were classified into five ranks of very low, low, medium, high, and very high using the Likert scale, scores of 1–5 were allocated to each scale. The number of questions on the questionnaire for staff was 32, for college students 24 questions.

The evaluation checklist of facilities and equipment consisted of four sections containing multiple-option questions divided into three desirable, relatively desirable, and undesirable ranks, score of 1–3 was allocated to it, respectively.

If the score of the question was in the range of 1.00–2.33, the index was evaluated undesirable, between 2.34 ± 3.66 , it was evaluated semi-desirable, and between 3.67 ± 5.00 , it was evaluated desirable.

(2) The semi-structure questions for the interview concluded two parts (context evaluation and input evaluation). The first part was context evaluation—the Context evaluation helps to assess the needs and opportunities within a defined context or environment (Stufflebeam, 2007). The objectives of context evaluation are to define, identify and address the needs of the target questions, goal of the SHS program, management that context deals with were the following questions such as 1. Are the aims of the school health service program suitable or not? 2. Do the objectives come from aims? 3. Is the program taught relevant to the aims? and 4. Is the school health service program fulfilling social needs?;

The second part was input evaluation—the purpose of this type of evaluation is to provide information for determining the resources used to meet the goals of the program. The resources include material resources, facilities, human resources, funding, and implement activities for evaluating the quality of school health service program. The questions that come under the context of input were: 1. What are the different learning skills that college students will gain? 2. Is there any balance between the practical and theory work? 3. What type of resources should the school health service program use for effective teaching and learning? 4. Are there material resources and facilities? Are they well maintained?.

(3) The observation behavior check list for product evaluation—it focused on the collage student's achievement of program i.e., the skills, attitudes, apply knowledge and performance in the future, learning and abilities they attain which the college student is going to use in life to benefit society.

Table 1. Variable, Data Source, and Tools of this study

Item	Variable/Topic	Data Source	Tool
Context	Goals necessity or needs management	1. Staff	CIPP questionnaire and semi-structure interview
Input	Material resources, facilities human resource Funding implement activities	1. Staff 2. College students	CIPP questionnaire for staff and college students
Process	training and service process program evaluation student progress evaluation administration	1. Staff 2. College students	CIPP questionnaire for staff and college students
Product	1. students and service achievement 2. apply knowledge and performance in the future	1. Staff 2. College students	1.CIPP questionnaire for staff and college students 2. Observation behavior Check list

Validation of research instruments

The instruments used in this research were based on the literature of the study, validated by three experts and pilot tested. Data were triangulated by comparing data collected through different instruments, that is, checklist, semi-structured interviews, audio recordings, observations, and questionnaire. The face validity of the questionnaire, semi-structure question for interview, and the observation behavior check list were valid. Those Questions with index of item objective congruence (IOC) had value between 0.80-1.00.

The reliability was calculated using Cronbach's alpha coefficient for different groups of respondents. Reliability was calculated using Cronbach's alpha coefficient for staff (0.73), and college students (0.81), respectively.

Data Analysis

The data analysis used descriptive and qualitative data analysis software. The steps in analyzing the data used the methods in the grounded research. This study described the SHS program seen from its context, input, process, and product (CIPP Evaluation model) from the staff' and students' experience and perspective.

RESULT AND DISCUSSION

Staff' perspective

In the field of context evaluation from the view of staff, the index with highest mean was "holding this SHS program has been required" (4.67 ± 0.49); while index with lowest mean was "The SHS program is appropriate and in accordance with needs to develop healthy and hygienic behaviors of pupil in primary school" (3.62 ± 0.65).

For the input evaluation found that the index of "The determined curriculum regarding the goals of the SHS program" with mean and standard deviation of 4.58 ± 0.79 had the highest mean and "Facilities and amenities were appropriate" with 3.58 ± 0.52 had the lowest mean.

The process evaluation found that the index of " Evaluation of the way of teaching college students was performed by the lecturer from HE department" with mean and standard deviation of 4.41 ± 0.77 had the highest mean and "Appropriate strategies were used to motivate college students" with 3.33 ± 0.77 had the lowest mean.

The product evaluation found that the index of " The results from evaluations of SHS program were considered in future planning" with mean and standard deviation of 4.32 ± 0.88 had the highest mean and "Providing the services of health education college students are suitable" with 3.23 ± 0.79 had the lowest mean. As seen in table 2.

Table 2. Examining indices of context, input, process, and product from staff' perspective

Item	Index with highest mean		Index with the lowest mean	
	Index	Mean \pm SD	Index	Mean \pm SD
Context	Holding this SHS program has been required	4.67 ± 0.49	The SHS program is appropriate and in accordance with needs to develop healthy and hygienic behaviors of pupil in primary school	3.62 ± 0.65
Input	The determined curriculum regarding the goals of the SHS program	4.58 ± 0.79	Facilities and amenities were appropriate	3.58 ± 0.52
Process	Evaluation of the way of teaching college students was performed by the lecturer from HE department	4.41 ± 0.77	Appropriate strategies were used to motivate college students	3.33 ± 0.77
Product	The results from evaluations of SHS program were considered in future planning	4.32 ± 0.88	Providing the services of health education college students are suitable	3.23 ± 0.79

Health Education major college students' perspective

For the input evaluation found that the index of " Facilities and amenities were appropriate" with mean and standard deviation of 4.85 ± 0.36 had the highest mean and "Period for service in the school community was too short" with 3.45 ± 0.60 had the lowest mean.

The process evaluation found that the index of "The step of activities in the SHS program was appropriate" with mean and standard deviation of 4.70 ± 0.45 had the highest mean and "Educational materials were presented using teaching equipment" with 4.14 ± 0.81 had the lowest mean.

The product evaluation found that the index of "Students perceived that they could apply their experience to future" with mean and standard deviation of 4.88 ± 0.18 had the highest mean and "Providing the service of

health education teacher are suitable as multiprofessionals” with 4.29 ± 0.60 had the lowest mean. As seen in table 3.

Table 3. Examining indices of context, input, process, and product from college students’ perspective

Item	Index with highest mean		Index with the lowest mean	
	Index	Mean±SD	Index	Mean±SD
Context	-	-	-	-
Input	Facilities and amenities were appropriate	4.85 ± 0.36	Period for service in the school community was too short	3.45 ± 0.60
Process	The step of activities in the SHS program was appropriate	4.70 ± 0.45	Educational materials were presented using teaching equipment	4.14 ± 0.81
Product	Students perceived that they could apply their experience to future	4.88 ± 0.18	Providing the service of health education teacher are suitable as multiprofessionals	4.29 ± 0.60

Staff’ perspective VS Health Education major college students’ perspective

The results of the status of answering questions in the four domains of CIPP by the units studied are shown in figure 1. The total score index of context, input, process, and product evaluation found that both staff and college students in all four dimensions of CIPP reported the school health service program at a desirable level ($>3.66/5$).

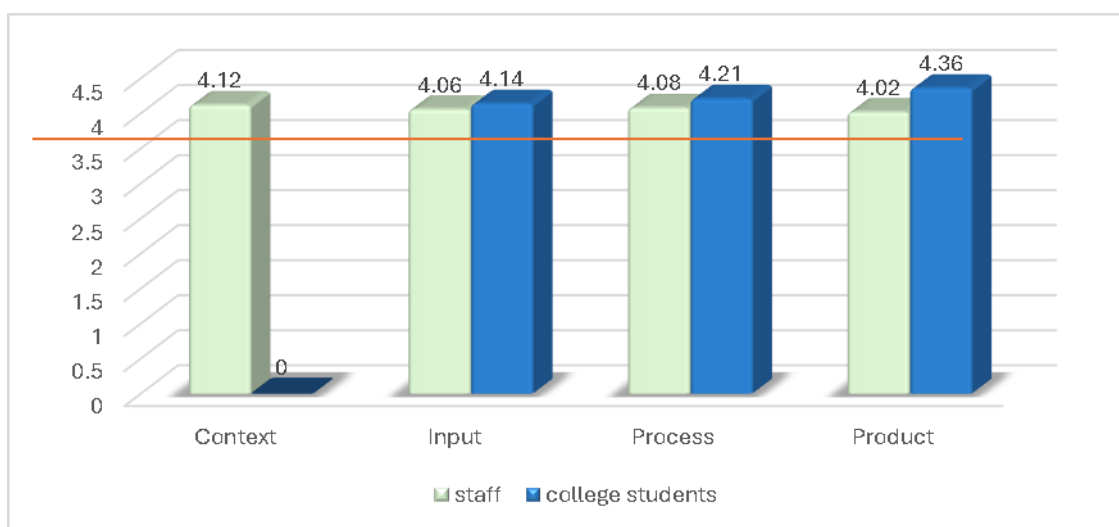


Figure 1. Index of context, input, process, and product from the perspective of staff vs college students

Moreover, interview data about the context evaluation from staff indicated that the school health service program can contribute college students with an environment that fosters creativity, emotional intelligence, social communication skills, and critical thinking. This program also provided cater to the social needs of the college students by polishing their behavior directly and indirectly.

Staff 1 explained that the objective of the SHS program was consistent with the activities in the program and was appropriate with department context. This program was effective to enhance on self-efficacy in health screening and life safety in school among health education major college students. Those college students were contributed for ensure creativity and willpower, social communication skills, and critical thinking.

Staff 2 elucidated that our department’s clear mission has helped maintain its prestige. The participant also underscored that the philosophy of our department are specific, measureable, acceptable, relevant and time bound; the staff specified further that the target population for our department is the primary school near SWU and the focus is on college students’ social, mental, physical and moral development to make them beneficial for society.

The CIPP model is used to evaluate programs in four areas: context, input, process, and output. Context evaluation involves identifying relevant elements in the educational environment, as well as problems, needs, and opportunities in a specific context or situation. This evaluation helps determine the appropriateness of predetermined goals. Both staff and health education major college students evaluated the SHS program favorably. College students rated the SHS program as desirable in the areas of input, process, and product, with an average score higher than that of the staff. While staff evaluated the SHS program as desirable in the context, input, process, and product factor. However, college students did not evaluate the program in context area because it was set up by the department to fulfill their experience in social, mental, and moral development to enhance their benefit for society. The results indicate that the SHS program is necessary. According to the staff, the weakness of the program is that “providing the services of health education college students are suitable”. On the other hand, college students believe that “the period for service in the school community is too short”.

Staff and college students rated the SHS program highly in the areas of context, input, process, and product. This was because the department staff cared about fulfilling the students’ experience, prepared the leadership training, provided the primary school, and defined the philosophy and objective of the SHS program clearly, appropriately, and in accordance with the students’ needs.

The findings are consistent with previous research on the CIPP model evaluation of health promoting school programs. For instance, Boonananwong & Richkamroph (2019) found that the health promoting schools had a high level of quality in the following aspects: 1) the context reflected the health policies and services that targeted the needs and suitability of the project group; 2) the input included the budget, personnel, and equipment; 3) the process involved the management plan and the activity implementation; and 4) the product demonstrated the impact of the project on the health condition of the students and staff. Similarly, Phimparu & Thawonkit (2020) showed that the three schools evaluated with the CIPP model had a high level of quality in the context, input, process, and product aspects. Moghadas-Dastjerdi, et.al. (2020) found that The evaluation indicators of the educational course in the field of context were evaluated desirable by province's managers and experts (95% questions), city managers (100% questions), teachers (95% questions), and health caregivers (80% questions).

In addition, this study used the CIPP model to evaluate the SHS program with a comprehensive questionnaire and applied the results to review, correct, and improve the program. This was the strength of this study. The study also suggests that it is necessary to reform and improve the indices that resulted in a semi-desirable situation and to continue the evaluation process.

CONCLUSION

This study shows that the initial school health service program is necessary for developing the potential of health education major college students. The program helps improve their knowledge and self-efficacy in school health promotion. The faculty of Physical Education at Srinakharinwirot University should encourage the students to learn and practice from direct experience to become quality health promotion leaders.

Furthermore, this study suggests that it is important to reform and improve the indicators that resulted in a semi-desirable situation in this period. The evaluation process should also continue. Based on the theoretical foundations and the gaps in the current research, more research is needed to evaluate the effectiveness of the program and the scope of the topic.

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