Guidelines for Enhancing the Effectiveness of Innovative Online Classes of the Police Cadets

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Abstract

Currently, learning management is a challenge for all educational institutions. This research project examined the guidelines for enhancing the effectiveness of online classes for police cadets using a mixed methods approach. A random sample of 250 police cadets was used for the quantitative method. For the qualitative method, a purposive sample of 34 managements and staff was used, including executive managements, faculty members, police cadets, and police officers from the Office of Academic Resources and Information Technology. The results showed that the use and effectiveness of online classes were highest both overall and on individual items. Police cadets' satisfaction with the use of online classes, which impacted the effectiveness of online classes, was 73.8 percent and significant at the 0.01 level. In addition, the following issues emerged: 1) instructor aspect: unfamiliarity with the program, lack of focus, and lack of interaction with students. The effectiveness enhancing guidelines were teacher/trainer training, establishing a learning community, creating educational innovation, and changing the role of teachers. 2) The student aspect revealed a lack of motivation, discipline, and self-control, as well as uncomfortable communication channels. Therefore, the academy should focus on motivating students, adjusting the perspective of leadership and control, and creating an easily accessible information channel for cadets. 3) The aspect of teaching activities showed the problems of lack of system and program knowledge and online teaching while cadets are in the classroom. Therefore, the academy should establish an online knowledge base, an exam database, and a mentoring system. 4) The aspect of supporting factors for teaching revealed that the learning environment was inadequate and the equipment was not ready. In addition, the academy should improve the basic structure of teaching; especially install the internet network and digital TV.

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Introduction

Driving an organization with knowledge and educational innovation is a concrete foundation of developing competitive advantage, empowerment and readiness to cope with complexity and challenges in all dimensions especially with the current situation of the coronavirus 2019 pandemic. Educational innovation in the form of online classes, it has become an important tool for coping and adapting to a new normal. Although many educational institutions have applied this innovation of online classes as an alternative to teaching and learning, it has been studied that efficiency is not inferior to normal physical classroom. A research study found that the effectiveness of online classes was not different from normal physical classroom (Suwat Banlue, 2017). Utilization of supplementary documents from teaching documents or complementary from lectures in class is the main media (Comprehensive Replacement) instead of attending physical classroom (Panwas Prasartsilp, 2015). However, there are many factors involved in the management of online classes that affects success or learning achievement whether it is the teacher, learner, lesson, and technology (Pachara Limrattanamongkol and Jiratcha Wichienpanya, 2013).

From the pilot study, researchers investigated the faculty members and police cadets related with the past issues of online classes at the Police Cadet Academy. Initially, the problem was found that instructors are dissatisfied in the case of handling the cost of the program used for teaching and learning, unfamiliar skills in using the program, and time-consuming for preparation process of teaching materials. Regarding the cost of the program, the administrators and supervisors of each department have subsequently purchased licenses of the departments so that instructors can rotate and use them for teachin. However, there was a issue with the previous user forgot logging out of the system after completing the course making other people unable to utilize the program. However, from the preliminary study of the police cadets, it was illustrated that they satisfied with online classes due to they had more time spending with family and independently engaged in other activities. As the researcher is a teacher of the

Police Cadet Academy, it is directly responsible for providing instruction for police cadets. The application of educational innovations in the form of online classes with readiness is important and necessary in order to cope with unpredictable social conditions, and optimize the productivity of the Police Cadet Academy in all contexts. This research study, the researcher therefore aims to study approaches to increase the efficiency of online classes, to develop teaching and learning management for police cadets to gain knowledge and abilities for achieving the learning outcomes standard of the Police Cadet Curriculum and finally expand the results to other courses in the police cadet school

Research Objectives

1. To study the satisfaction level of the online classes and the learning efficiency of the police cadet

2. To evaluate the satisfaction level of the online classes affecting the learning efficiency of the police cadet

3. To assess the problems and obstacles of the online classes and provide guidelines for improving the efficiency of online classes for the police cadet

Research Question

1. Which satisfaction level of the online classes and the learning efficiency of the police cadet?

2. Is the satisfaction of online classes affecting the learning efficiency of the police cadet?

3. How is the problems and obstacles in online classes in terms of teachers, learners, learning activities and learning supports? What are the guidelines to improve the efficiency of online classes?

Research Hypothesis

Satisfaction of the online classes affects the efficiency of the learning efficiency of the police cadet

Expected Outcome of Research

1. Information presented to executives, supervisor, and all faculty members under the Royal Police Cadet School about the satisfaction level of utilizing the online classes and guidelines for solving problems and

obstacles in the management of online teaching and learning

2. Guidelines for the development of online classes to increase the efficiency of online teaching and learning for faculty members in the police cadet courses and expanding the result to other courses in the police cadet school

In this research, the researcher had a two-step research framework. The first step was to search for sat-isfaction variables and the efficiency of online classes including variables that affect the efficiency of teaching and learning from the point of view of the police cadet. The second step was to conduct interviews with key informants related to online classes about problems, obstacles and solutions to find solutions to optimize online classes as illustrated in the research conceptual framework (Figure 1)
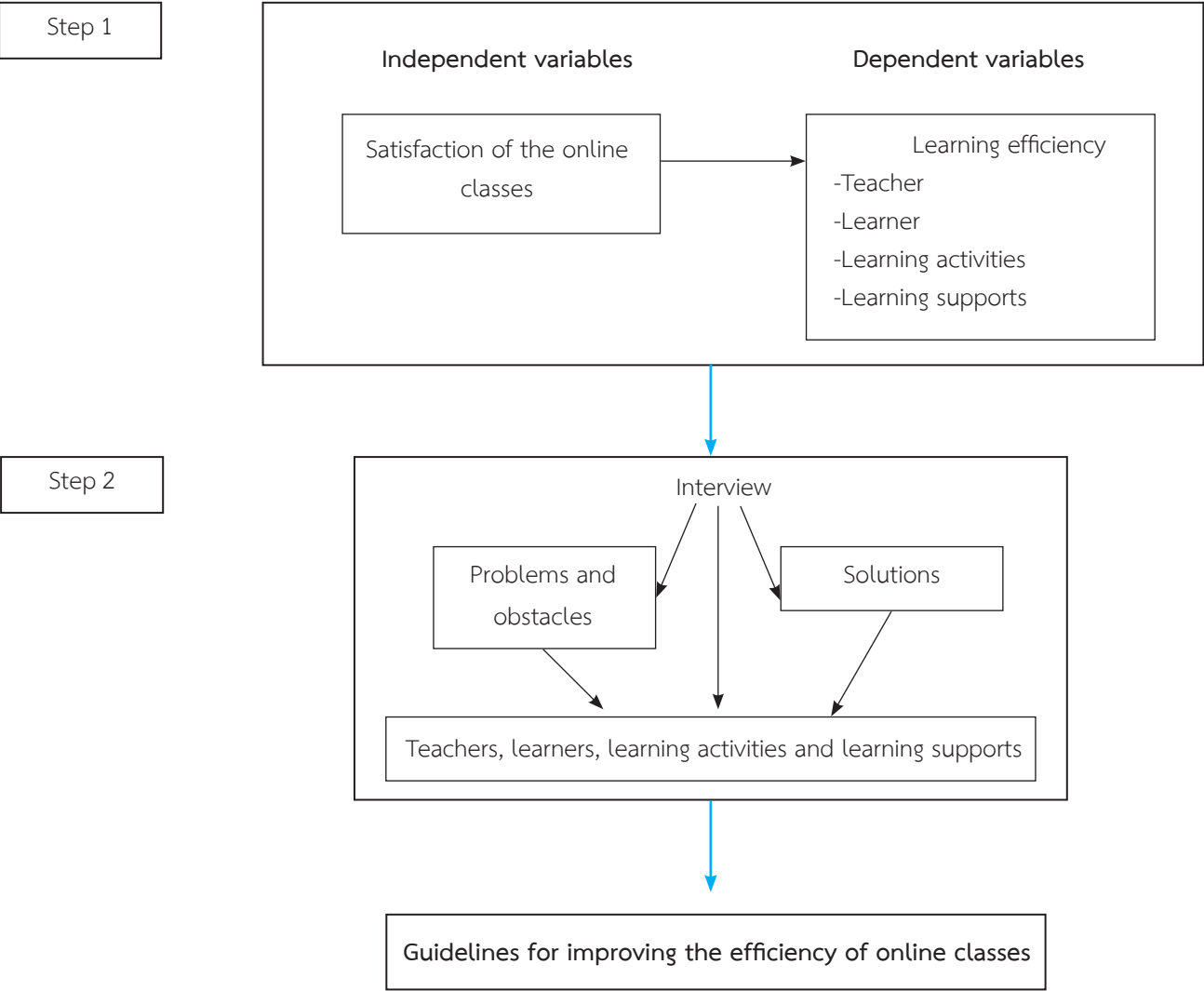

Figure 1. Conceptual framework for research

Research Methodology

This study was a mixed-method research. The researcher applied a quantitative research method to study the level of satisfaction for the online classes, efficiency level of teaching management, evaluate the satisfaction of the online classes that affects the efficiency of teaching and learning of the police cadet with a questionnaires and qualitative research method, assess problems and obstacles, and presenting guidelines to increase efficiency in online classes with in-depth interview.

In terms of quantitative research, an example used in the study was a total of 250 police cadets, 1st-4th year, defined the sample size from the random number table of Krejcie and Morgan and selected samples by accidental sampling. For qualitative research, the researcher selected the key information providers (purposive sampling) namely the executive (deputy commissioner for academic affairs), Faculty of Police Science, Faculty of Social Sciences, Faculty of Forensic Science and the Faculty of Law, 6 people per unit, a total of 24 people, and 2 police cadets from 1st to 4th year, a total of 8 people, including 1 police officer from the Bureau of Information Technology and Resource Services (NST-DA), total 34 people.

The variables used in the quantitative research, independent variables were satisfaction with using online classes, while the dependent variables were teaching efficiency consisting of the instructor aspect, the student aspect, the teaching activities aspect. and supporting factors for teaching. For qualitative research, study on the problems, obstacles and approach increasing efficiency in online classes for the police cadets in 4 issues, namely the instructor aspect, the learner aspect, the teaching activity aspect. and the supporting factors for teaching. As for the tools applied in this research, there were 2 subjects: 1) the police cadet questionnaire consisted of 3 parts: personal data, satisfaction level of the online classes developed from the questionnaire of Patchara Kongmoor (2016) and the efficiency of teaching developed from a questionnaire by Nuttakrit Phuklang (2018) 2) An interview form for online classes in 2 subjects: problems and obstacles, and solutions

increasing efficiency in online teaching for teachers, learners, teaching activities and the supporting factors for teaching. The researcher discovered the quality of the two sets of tools and received the reliability of the whole questionnaire at .972 and the interview form was consistent with content validity and credibility of information from the investigation of the researcher or the data collector (Investigator Triangulation). The researcher analyzed the data quantitatively using descriptive statistics to describe the characteristics of variables and the level of the variable with a ready-made program and qualitatively analyze the data with content analysis and interpretation.

Results

The results of the research can be summarized as follows

1. Police cadets were satisfied with the online classrooms in overall and each item at the most satisfactory level and have opinions on the effectiveness of online teaching in overall and in every aspect at the highest agreeable level. When considering each aspect, it was found that teaching activities had the highest average followed by teachers and the supporting factors for teaching had the lowest average. As considering each item, it was found that every item, including the instructor, the learner, the teaching activities, and the supporting factors for teaching at the most agreeable level.

2. The satisfaction for online classes of police cadets affected the efficiency of online teaching by 73.8% with a statistical significance at the .01 level.

3. Problems, obstacles, and guidelines for improving the efficiency of online teaching

3.1 For the teacher aspect, there were 3 problems and obstacles:

Issue 1 Unfamiliarity with new technology, unable to use the program professionally, lack of concentration in teaching, absence of concentration in teaching whether it was a matter of the system, such as the clarity of the sound, image sharpness, answering questions in chat or the subject related with learners during

the online classes.

Issue 2: Time consuming for preparation of teaching materials. Due to lack of skills andmanageability, teachers were required to study techniques for creating teaching materials to stimulate interest and creativity especially skill training courses or laws that were difficult and keep learners interested during the class. Among the limitations of learners in different contexts and the availability of communication devices, it made some teachers prefer teaching in the classroom for reasons that they can control the teaching context, understand communication reaction and the perspectives of students. Moreover, teachers also lost time dealing with immediate problems that may arise during teaching whether it was a technical issues or any related-problems. In addition, the teachers also felt in the same direction that online teaching requires more power and effort than physical classroom to achieve maximum learning efficiency for the police cadets in online classes. It was not only make it difficult to assess students but also encountered problems and obstacles in the internet signal, communication and interaction during the class.

Issue 3: Lack of interaction with learners. Since the communication must proceed through the screen and unable to do face-to-face communicate. As a result, online teaching could not see all learners at all times, it was impossible to assess comprehensiveness of the students in class.

Guidelines for increasing the efficiency of online teaching for teachers are as follows:

1) Provide training for teachers with knowledge and various skills in online teaching both on the issues of various online program systems, techniques and methods of teaching, creation of teaching materials, etc. by creating a potential development program for the faculty with training schedule throughout the academic year in a variety of learning topics and time periods to choose according to interest.

2) Create learning community to encourage the exchange of knowledge and transfer the experience by utilizing a variety of evaluation forms, define assessment criteria and prepare assessors with the same standards to be able to evaluate appropriate and equitable learning outcomes.

3) Continuous develop yourself all the time. Teachers should improve themselves to keep up with technology, initiate mindset of lifelong learning, create innovation in education, whether it is teaching innovation, innovation on teaching media, or management innovation to develop efficiency in teaching.

4) Change the role from teachers to facilitators or coaches by being a guide or support for learners to achieve maximum learning capability rather than being a learning center as in the past.

3.2 For the students aspect: two major problems and obstacles as follows

Issue 1: Lack of motivation and participation in classes, concentration and determination were lower than in a normal physical classes with an unfavorable online teaching environment from external stimuli that attract attention from physical condition or from the obligations to the family causing lack of discipline in studying. Besides, instructors were not able to manage effectively. Students tend to have less self-control and intended to use technological expertise in order to implement techniques for obscuring teachers from participating in online classes, including copying homework. In this regard, teachers need to apply a variety of methods to motivate students, including cultivating conscience and morality

Issue 2: Difficulty in communication. The interactive communication during the online classes were as much as they should. It may cause from the teacher didn't see the question in the chatting channel, technical problems relat-

ed with the sound, forget to turn on the microphone, or from the students who were considerate about wasting time among themselves etc.

Guidelines for improving the efficiency of online teaching for learners are as follows:

1) Organize teaching approach that focuses on motivating learners, create and develop variety of teaching methods to stimulate the interest of learners, and enhance understanding to visualize the picture more clearly, for example, using video clips, YouTube, and Kahoot games, etc. which some teachers have already applied some such activities but it is not effective in motivating students in the whole class. Teachers need to adjust their perspective to focus on the learners rather than enforcement of the command system. In addition, there are suggestions to have more than one teacher to help stimulate and monitor during online classes.

2) Provide opportunities or find a channel for learners to access information more easily and conveniently. Executives should allow first-year police cadets to use their mobile phones during the class or all the times to support additional knowledge seraching after school hours, provide communication devices/notebooks to all police cadets since the start of their studies, and suggest useful reference resources for students to access to the online library at all times.

3) Add communication channels, i.e. a personal line, a group line, or an E-mail for learners so that they are able ask questions, submit homework, or send pre-reading materials in advance of teaching which corresponds to the needs of learners who want to study information in advance.

3.3 Teaching activities aspect: Three problems and obstacles were found as follows:

Issue 1: Restrictions on organizing activities from the lack of expertise in the program. As a result, learners had lost their interest, especially for the training and practical classes which encountered limitations and difficulties in organizing learning activities.

Issue 2: Organizing online teaching activities in the classroom causing teachers were not be able to see all students, lack of hearing a response from the audience, and problems with echo sound during a class.

Issue 3: Difficulties in competency assessment of students. As it was difficult for the teacher to recognize the improvement of students from online classes, they tend to manage less learning efficiency and also issues related with performance evaluation context.

Guidelines for improving the efficiency of online teaching are as follows:

1) Persons responsible for teaching should create or develop an official channel to collect information in an online format and provide opportunities to access, for example, the Information Technology and Academic Services staff created an online knowledge channel so both teachers can conveniently update information and students can access at any time without restrictions.

2) Create a system of mentors to facilitate students with advice both in terms of online teaching or in other fields. Since the teachers in each working faculty has different and a wide range of skills so building a mentoring system is a helpful means in overall.

3) Utilize a variety of measurement and evaluation models. Establish assessment criteria and prepare assessors to have the same standard in order to be able to assess learning outcomes accurately, appropriately and fairly by many forms of assessment, for example, creating a work, writing an essay, simulating a role-play, addressing a debate etc.

3.4 Supporting factors for online teaching. Three problems and obstacles were found as follows:

Issue 1: The problems with internet system and the WIFI signal were still unstable

with limited coverage area in the school. Besides, there were problems with signal disconnection, crashes, delays from pulling the signal from a large number traffic so most of the students tend to use their own private internet network.

Issue 2: The learning environment was not align and supportive to students. As internal environment factor, there were assigned missions or attending surveillance or additional special training, etc., For the external environment factor, students may have obligations to their families or an emergency issues causing absent from online classroom.

Issue 3: Unavailability of equipment and tools whether there was only one mobile phone that need to be continuously used during a class for a long time with a small screen, etc.

Guidelines for improving the efficiency of online teaching. The factors supporting teaching and learning are as follows:

1) Develop infrastructure to support online teaching in the future especially the internet network which is an important basis, install a signal system to provide coverage and stability at all points so that the students are able to study effectively anywhere, improve the classroom and install more digital TVs to increase the teaching efficiency with optimized budget.

2) Provide a system or program to support organizing online teaching, which the Police Cadet Academy currently supports Zoom program for using in online teaching by giving the authority to the head of the police cadet at every year of study in order to solve the problem of limited account usage in teaching or that the teachers have to purchase by themself. Besides, additional programs should be provided as an alternative for teaching.

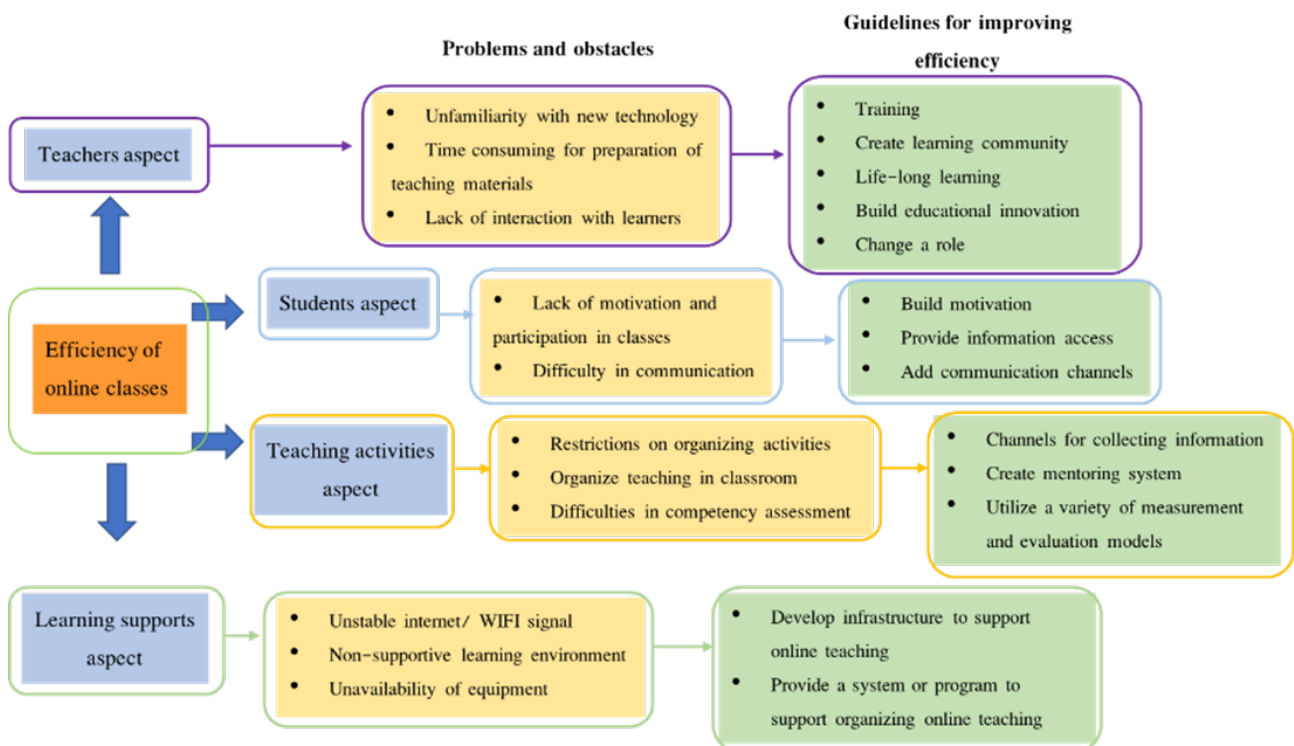The researcher summarizes the results as shown in Figure 2.

Figure 2. Research summary

Discussion

In this study, the researcher discussed the results of two key findings as follows:

1. According to the study, the satisfaction of online classrooms among police cadets affecting the efficiency of online teaching which corresponding to the research assumption. This may be due to the students can access online classes as needed, capable of learning from anywhere, anytime. Moreover, the communication channel is convenient and fast. The program itself is user-friendly which meet the needs of police cadets handling with other assigned tasks and learning at the same time. If the online lessons are attractively illustrated, clear voice with sharpen text and video images, and providing activities to stimulate learning. It will attract students more attention to study. As a result, students are satisfied with access to online classes affecting the efficiency of learning achievements of students. In this regard, it is consistent with the study results of Chanin Tangpanthong (2017) that examined factors affecting online learning achievement to enhance teaching and found that user satisfaction influenced learning achievement of online classes. From a study by Kanokwan Maneechai and Sangdao Prasittisuk (2017) who studied the satisfaction of online learning, the online classes should be presenting an appropriate learning model with various forms of activities, suitable assessment criteria for learning, independently exchange opinions and information about the subject, and authority for students to develop lessons at any time, etc. Therefore, in order to increase the efficiency of online teaching, the important thing is satisfaction of the students for the online classes which the teacher must realize and emphasize to achieve learning achievement of students.

2. From the finding of problems and obstacles and guidelines for improving the efficiency of online teaching of the police cadet which consists of the teacher aspect, the student aspect, the teaching activities aspect, and supporting factors for teaching aspect. The results are discussed as follows:

2.1 Teacher aspect: From the results of the study, problems and obstacles are related unfamiliarity with new technology, inability to use online programs fluently (most of them use only basic skills), and lack of concentration in teaching from anxiety of the system or learners. This may be because the teacher has not prepared to utilize the online program system in advance but it is necessary to manage online teaching during the Covid-19 pandemic. During normal situation, the Police Cadet Academy applies the online teaching and learning model as a supplementary or complementary media in addition to a normal lecture class. Hence, it is an alternative for learners to access content and to provide additional experiences for learners. Nevertheless, when teachers need to use it as the main media (comprehensive replacement) to replace lectures in the physical classroom. Thus, it is imperative that teachers have to prepare and develop various skills for effective online teaching. From the study of improving the efficiency of teaching at the bachelor's degree level, it is found that teachers are one of the key elements that require teaching strategies to transfer knowledge and utilize teaching materials to meet the interests and needs of learners enabling them to acquire knowledge and skills (Nattakrit Phuklang, 2018). For quality assurance within the curriculum level, it indicates that teachers are important inputs for creating graduate. Those who involved must design a system of management assurance to develop instructors in order to obtain qualified teachers with aligned qualifications with the context, philosophy, vision of the institution and the curriculum. Furthermore, executives have to create policies, long-term plans. and operational activities as well as supervision with the development of teacher quality (Guide to Quality Assurance of Internal Education for the academic year 2019).

In addition to online teaching, it was found that instructors spend longer time in preparing teaching materials as resulting from lack of skills and ability to manage the program system, study techniques for creating teaching materials

which consume effort and dedication to learn the system and methods, and troubleshoot with immediate problems that may arise during the class whether it is a systematic problems or technical issues. Especially for training courses or legal related subjects, it is also difficult to manage in order to stimulate learners during the class. Since communication during online classes carried out through computer screen, learners tend to lack of interaction with teachers. As a result, teachers are not able to see all learners at all times, making it impossible to assess understanding of the audience for achieving maximum learning efficiency, and they use more energy and effort than the normal classroom. Kamonchanok Kaewthong (2016) indicated that in the process of managing online teaching, instructors should design courses, prepare educational content, communicate, monitor learning progress, and evaluate learning outcomes. Therefore, these are the reason for teachers spending time and dedication in organizing online teaching. From the study of Patchara Kongmoo (2017) who studied the guidelines for the development of online classes, it is found that the problems and obstacles related to teachers during online classes as follows: lack of time to prepare learning materials and improve contents, heavy teaching workload, lack of motivation, and the availability of fundamental facilities.

From the findings of approaches to increase the efficiency of online teaching management in the teachers' aspect, there should be trainings to provide teachers with knowledge and skills in managing a variety of online teaching in terms of the various online program systems, techniques and methods of teaching, creation of teaching materials, measurement and evaluation, creating of educational innovations, and building a learning community. This is consistent with the findings of Atetaya Kaewsriha, Kraphan Srinan and Kowit Watcharintrangkun (2015) evaluating the effectiveness of teaching and give definition that it must contain academic knowledge, use of teaching materials, appropriate teaching activities. The previous studies therefore reinforce that in order to increase the efficiency of teaching, it is important and necessary that teachers initially need to be trained and developed. Based on the findings, teachers must change their role from an instructor, as in the past, to a facilitator or coaches to support learners in order to achieve maximum learning capability. This is consistent with the previous study of Denphon Kurikan (2015) stated that reducing the limitations of online teaching management, instructors have to change their roles from being a content providers (Impart) to facilitators, give advice to learners, open the opportunity to students for self-learning, capable of utilizing computer skills, and responsible for teaching and focus on students. This is also related with the study of Piticha Kaenchan (2014), that the instructor must change the role of an advisor to a facilitator, focus on student, stimulate students for learning and doing activities, prepare quality content and resources, and maintain the readiness of computers for online classes.

2.2 Student aspect: According to the results of the study problems and obstacles, it is found that learners lack of motivation and participation, lower level of concentration than in normal classes, inconvenience in communication and interaction during the class. This is consistent with the studies of Ubonrat Wichien, Pancharee Ukaphatsakul and Anchana Srichanchai (2019) that significant limitations in online teaching is lack of interaction between teachers and audiences. Another problem with online classes is the absent of students or lack of class participation during online classes. This is consistent with the finding of Dina, Daphne & Hongli (2021) that examined self-directed learning in online and hybrid courses by studying the differences of individuals with self-directed learning. The results show that there are four different types of individuals, most of them have low levels of self-directed

for learning skills. Therefore, it is a challenge for teachers to develop teaching methods motivating learners throughout the classes, and monitoring learners who are not in online classes. From the findings about increasing the effectiveness of online teaching for learners, there are suggestions to focus on developing teaching methods that motivating learners, providing opportunities for students to access information conveniently and add a variety of communication channels. As Tham & Werner (2005) explained about the effective learning, creating an online lesson should be unlimitedly accessed, capable of exchanging experiences between learners, consideration about the individual learning style, and provide a supportive environment for learning.

2.3 Teaching activities aspect: From the study of problems and obstacles, it is found that causes from lacking of expertise in the online program system of the teachers causing limitations in teaching activities, evaluating process, and lack of variety of activities. As a result, learners tend to lose their attention during the class. This issue clearly reinforces the problem of teachers in online teaching and reflects that it is important to develop and prepare for the current and future situations for the needs of online teaching that requires teachers to have expertise in organizing learning activities to transfer knowledge and experience to the learners. It is necessary to change the perspective that online teaching is a tool of broader and profound knowledge. Online teaching will build confidence for teachers to develop teaching processes to keep up with the changing world. Teachers should be aware that quality can be achieved by continuous learning in order to developing learners and teaching system. Online teaching is not a burden but it might require practice and familiarity with the system. Last but not least, teachers also need to encourage learners to access online learning (Apinya Panyasit, 2012).

From the findings of ways to increase the efficiency of online teaching, those who are responsible for the maintenance and development of the system are important to development of learning and teaching efficiency for students as well. This is consistent with the study by Khan (2012) that the agency's responsibility for general administration, academic affairs, and student services enhance process of online teaching and learning effectively which is one of the essential elements of online learning.

2.4 Learning supports aspect: From the study of problems and obstacles, it is found that internet system and Wifi signal is unstable with limited coverage especially during the large amount of traffic. Yet, an environment that is not supportive to learning. This causes the learners to lose their attention during online classes which proceed through the internet network and electronic technology. Thus, the supportive infrastructure is an essential and important element (Patchara Kongmoo, 2017).

From the findings of the guidelines for increasing the efficiency of online teaching in terms of supporting factors, development of infrastructure to support online teaching is an important issue especially the internet network which is an essential foundation in education in the present and future. This is also consistent with the study of Nattakrit Phuklang (2018), it explains that factors that support teaching in terms of learning environment, buildings, places for organizing activities, teaching media and personnel are one of the factors contributing to the efficiency of teaching. There are also suggestions for development of online teaching by improving quality of the high-speed internet network for enhancing learning capability.

From the study It can be concluded that the development of qualified students to meet the curriculum standard depends on the learners, teachers, factors supporting teaching and learning. An important factor promoting effective learning is teaching activities. Teachers need to study and develop teaching methods

or related-activities in order to adapt with the content and learners, understand the nature of learners with different background, and recognize the level of perception and learning. Teachers should apply both the technical knowledge and art of teaching in an online class to motivate and engage students. This will finally result in the highest efficiency in online teaching.

Suggestions

Policy suggestion

1. Drive the concrete policy of developing teachers' potential, formulate an action plans every academic year, create clear guidelines at the policy level and execute policies for all faculties, assign responsible coordinators and provide guidelines to support during the implementation.

2. Establish a research database system by connect all faculties and related agencies whether system administrators or educational service center in order to link the educational network between the faculty and the agency, and expand the results to the outside organizations.

3. Budget allocation and implement the development of the internet and Wifi signal for maximum efficiency with full coverage area in every building in the Police Cadet Academy as well as supporting other factors in teaching, for example, notebook computers. communication devices, etc. as truly become a Smart Academy.

Suggestions for utilization

1. Develop guidelines of online teaching for faculty by emphasizing modern skills for knowledge and expertise development, deliver readiness and competency in producing graduates to meet the needs of the country, and support the current and future needs of communities.

2. Opportunities for all faculty members with training and develop skills according to their needs and expertise, provide equal opportunities for study visits both domestic and international level in order to apply up-to-date knowledge in teaching as the international standards.

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