The Study of Aspects towards Green Campus of Technical Vocational Education and Training School in Lao PDR

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Abstract

The purposes of this study were to analyze the aspects of green campus; to assess the propriety and feasibility of the aspects of green campus for application in Technical Vocational Education and Training (TVET) schools in Lao PDR; and to study the current operations of TVET schools towards green campus in Lao PDR. This study conducted in the 3 representative schools divided into 3 groups according to school size in Vientiane, Lao PDR; Pakpasak Technical College, Lao-German Technical College, and Dongkhamxang Agriculture Technical College.The participants were directors and vice-directors from TVET schools and TVET organizations. The data were collected by assessment and evaluation real circumstance. The data were analyzed by Percentage, Mean, and Standard Deviation. The major findings revealed that the aspects of green campus, especially physical operations, are categorized in 13 aspects and 148 indicators/activities; 10 aspects of green campus and 29 indicators/activities were defined that they are propriety and feasibility for application in TVET schools; and the 3 representative of TVET schools, have conducted their current operations towards green campus in accordance with the aspects of green campus in 9 aspects through P, P-D and P-D-C step only. The aspect that the 3 schools have not conducted any activity is the aspect of Safe and Healthy Environment.

Keywords: 1. Green Campus, 2.

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Introduction

Currently, as we know that global warming or climate change effect is critical all over the world. That is to say a seemingly slight average temperature rise is enough to cause a dramatic transformation of our planet as: more frequent and severe weather, higher death rates, dirtier air, higher wildlife extinction rates, more acidic oceans, and higher sea levels (Natural Resources Defense Council, 2017). Therefore, all countries in the world focus on environmental protection in order to reduce global warming, it is shown that the United Nations Framework Convention on Climate Change (UNFCCC) was held and all parties have ratified and adopted a global post-2015 sustainable development agenda with a whole new set of Sustainable Development Goals (United Nation, 2016). In 2015, the world set a new milestone and committed collectively to a global action in order to achieve the future all of us expected (UNESCO, 2014). Therefore, to develop our countries without an impact on ecosystem and/or environment, we have to pay attention to protect environment under the vision of sustainable development.

Hence, UNESCO recognizes the importance of not only sustainable development, but also "Green" which is an influencing scheme on socio-economic development of the world. The education sector, in particularly, where is the place empower people to change the way they think and work towards sustainable future (Da-Yeh University, 2012), then has to perform in the same way with green and sustainable development; for instance, Green University, Green campus which is known in the world under the vision of sustainable development, and in Technical Vocational Education and Training (TVET) sector where perform activities for achievement in sustainable and low-carbon world. A suggested framework, then has been built upon "5 Dimensions" to anchor sustainable development principles in TVET institutions, and the supporting sustainable practices including the scope of the initiatives are also identified for each dimension (Majumdar, 2010). Howsoever, UNESCO provided information for implementing "5 Dimensions" into TVET in a wide scope which there are not enough criteria or guidelines under each dimension.

Lao People's Democratic Republic (Lao PDR) has also recognized to environment effect, and has applied to be member of the UNFCCC in the Paris Agreement (United Nations, 2014). It can be seen from the government strategy, there are contents concern about sustainable development and environment protection by aiming to be ranked as a developing country with upper-middle income and with innovative, green and sustainable economic growth (Keomixay, 2016). Meanwhile, the Ministry of Education and Sports (MoES), serves as the center of human

resource development, has also legislated some laws and regulations; for instance, education development plan, TVET development plan, TVET quality assurance, 3 characters of national education, and 5 principles of education concerning sustainable development and environment protection (Viphavanh, 2013). Moreover, MoES also appointed policy of 3 competitions related to the environment protection; namely, Well Teach-Excellent Learning including Anti Negative Phenomena and Create Good Environment, which are performed among education and sport schools, centers and institutions including TVET schools.

Regarding TVET schools in Lao PDR, they are sub-education sectors, as part of lifelong learning, take place at secondary, post-secondary and tertiary levels and includes work-based learning and continuing training in knowledge, skills and attitudes and professional development. And concerning the internal quality assurance monitoring in order to ensure the presence of quality control mechanisms for TVET schools, indicates that the administrators of the TVET schools have to develop a positive environment for their staffs in order to conduct quality works, especially in Component 3 concerning to learners, support of learners, and graduates, and Component 6 concerning to Facilities and Green Environment (MoES, 2011). It can be said that the policy of MoES, and quality assurance appointed for TVET schools to create good environment, are one part of the Green TVET, especially Green Campus Dimension of "5 Dimension". Howsoever, the government strategy and policy, the information and/or guidelines for implementing concretely in education sector, are scarcely in Lao PDR.

Based on the reviewing literature about the environmental protection in the education institutions where conduct concretely, the "Green campus" will be the possible approach that meets to the strategy and policy of Lao PDR government, including MoES. Since, Green campus offers rewards long-term commitment to continuous environmental improvement from the campus community (UI Green Campus, 2017). From the mentioned above, we've already known that the education sector, including TVET schools in Lao PDR, have no enough guidelines for operation activities to be sustainable green school. Thus, to create efficient guidelines by considering to activities in TVET schools towards green campus in Lao PDR, it's necessary to study the aspects of green campus from other universities/institutions where conduct successfully in order to be database for determination aspects including indicators/activities that will be suitable framework for operating in Lao PDR. In this study, the researcher will place importance on the aspects including indicators/activities of green campus by hoping that the results of this study might be useful for preparation in TVET schools towards green campus in Lao PDR effectively in the future. However, the most of all, it might

be useful for Lao PDR that can protect environment and contribute awareness about this to young generation in sustainable way.

Research Questions

1. What are the aspects of green campus?
2. What are the aspects of green campus which are appropriate and feasible for application in TVE schools in Lao PDR?
3. What are the results of current operations of TVET schools towards green campus in Lao PDR?

The Objectives of the Research

1. To analyze the aspects of green campus;
2. To assess the propriety and feasibility of aspects of green campus for application in TVET schools in Lao PDR;
3. To study the current operations of TVET schools towards green campus in Lao PDR.

The Conceptual Framework of the Research

This research focuses on the study of aspects of green campus which are appropriate and feasible for application in TVET schools in Lao PDR. According to the literature reviewed, it was found that Sustainable Development is an ability to ensure that development meets the needs of the present without compromising the ability of future generations to meet their own needs. In order to preserve the natural world, economic, social, and environmental factors must be cooperatively considered and harmonized. This role is pronounced in the realm of education sector because students are being prepared to enter labor market and emerge with skills to support green economics and as messengers of ideas. Green University, Green Campus including Green TVET refer to the institutions whose practices are environmentally friendly and benefit our natural resources. Universities/colleges have been launched focuses on the competition in sustainability seems to be a good direction to promote the universities' status. As result of this, green university and green campus ranking have been inaugurated in order to evaluate the ability of university concerning to sustainability in the university. From green university and green campus ranking, the aspects including indicators/activities for measurement the ability of university have been launched. Therefore, in this study, the analysis and assessment aspect of green campus was conducted in order to find out the aspect including with indicators/activities which would be appropriate for Lao PDR; and

meanwhile, the current operations of TVET schools' activities in Lao PDR was also evaluated based on the aspects from the assessment results. From this, the appropriate and feasible aspects including indicators/activities will be defined and will cover to the full range of operating in TVET schools in Lao PDR. The conceptual framework for this study is shown as figure 1:

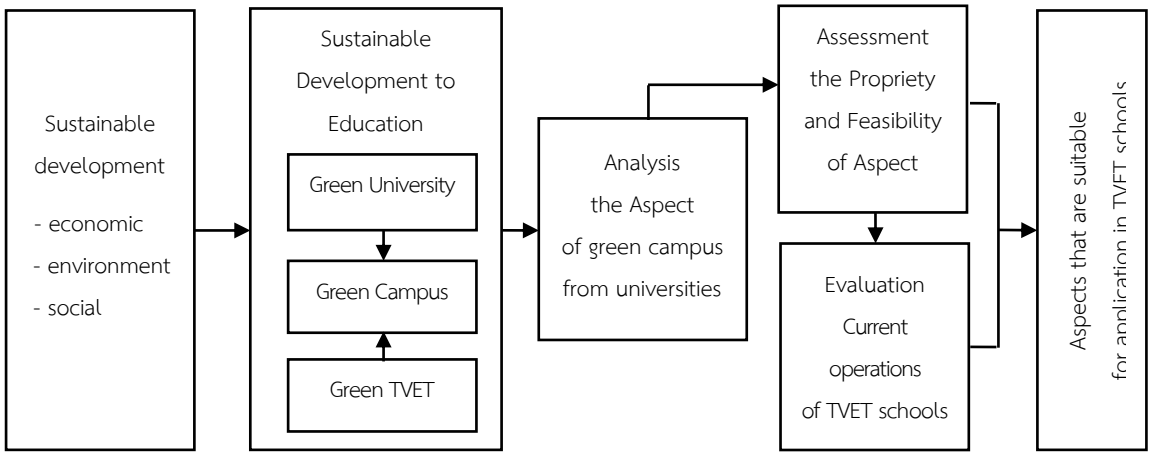

Figure 1: Conceptual Framework

Research Methodology

1. The participants included 4 groups and employed by Purposive Sampling Method:

The 1st Group; for checking content validity of aspects assessment form. This group included 3 people having been working in TVET school not less than 10 years, and having experiences in environment field teaching in TVET school not less than 5 years.

The 2nd Group; for assessment the propriety and feasibility of aspects of green campus for application in TVET schools in Lao PDR. This group included people who are directors and vice-directors having experiences in TVET education management not less than 10 years; and were selected from 1) all 6 TVET schools in Vientiane with the number of 12 people; 2) 3 TVET organizations; namely, Education Administrator Development Institute, Vocational Education Development Institute and Technical and Vocational Education Department with the number of 6 people, totally 18 people.

The 3rd Group; for checking quality of guidebook and content validity of evaluation form. This group included 3 people having experiences in TVET education management not less than 10 years, and have ever trained about Green TVET or have experiences in environment field teaching in TVET school not less than 5 years.

The 4th Group; for evaluation the current operations in real circumstance of TVET school towards green campus in Lao PDR. This group was the same people of 2nd group which included people from 1) 3 TVET schools in Vientiane in order to be the representative schools of each size; namely, Polytechnic College, Vientiane-Hanoi Technical College, and Vientiane Professional Development College, with the number of 6 people; and 2) 3 TVET organizations, with the number of 6 people, totally 12 people.

2. Research Instruments are divided into 3 sets as follows:

2.1 The aspect assessment form

This form, provided for directors and vice-directors for assessment the propriety and feasibility of aspects of green campus for application in TVET schools in Lao PDR, was created by analyzing from reviewing literature about green campus (exempt from education management), and green TVET. This form consisted of 13 aspects categorized in Energy Management, Water Management, Waste Management, Campus Recycling, Transportation, Campus Setting and Infrastructure, Air and Climate, Land Usage, Landscape Management, Green Building, Purchasing, Safe and Healthy Environment, and Food and Dining Service. This instrument was divided into Part 1: demographic data of respondents, Part 2: opinions pertaining to the propriety and feasibility of the aspects towards green campus for application in TVET schools. Scores for each item was assigned on 5 level-Rating Scale, and Part 3: open-ended questionnaire for suggestions. The quality of content validity of the instrument was investigated by 3 experts by finding the Item Objective Congruence (IOC). The investigation revealed that the value of quality was between 0.67 and 1.00.

2.2 The guidebook

This guidebook was made for evaluators to study and to create common understand before evaluating the current operations in real circumstance of TVET schools. Its contents consisted of Part 1: the aspects of green campus, condition of work operations of aspects used for evaluation in TVET schools; and Part 2: scoring, definitions, guidelines for evaluation the current operations in TVET school, condition and criteria for scoring. Regarding the investigation of guidebook's quality in terms of appropriateness by consideration of 3

experts, it was found that all experts inferred that its contents, format and language, including application were rated as excellent for using (M = 4.69 and S.D. = 0.47)

2.3 The evaluation form

This form, used for evaluating the current operations in real circumstance of TVET schools towards green campus in Lao PDR, was created by studying about work operations of PDCA cycle. This instrument was developed by using the aspects and indicators/activities from the results of aspect assessment by considering the consensus of propriety and feasibility as 80% up. (Hence, both of aspects and indicators/activities where a priori consensus was not met, were removed, while the lefts were used to design this form.) The quality of content validity of the instrument was investigated by 3 experts by finding IOC. The investigation revealed that the value of quality was between 0.67 and 1.00.

3. The data analysis was divided into three categorizes as follows:

3.1 Analyzing the data obtained from the literature reviewed about the aspects of green campus by content analysis.

3.2 Analyzing the data obtained from the assessment of propriety and feasibility of aspects by using descriptive statisics; percentage.

3.3 Analyzing the data obtained from the assessment of appropriateness of guidebook by using descriptive statisics; mean and standard deviation.

Research Results

For the research finding, there were 4 results according to objectives following:

1. Results of the analysis of aspects of green campus

Regarding review literature about the aspects of green campus, the results obtained by means of content analysis. The search design encompassed universities and educational organizations where are successful in working operations concerning green campus. Inclusion aspects were physical operations in green campus, while exclusion aspects were educational management. The literature search yielded 11 universities and 2 educational organizations to fulfill the inclusion aspects, that are UI Green Metric World University Ranking (UI), Georgia Institute of Technology, University of Chicago, University of California, Santa Barbara, Oregon State University, University of Connecticut, Lappeenranta University of Technology, Mahidol University, Kasesart University, Suranaree University of Technology, Suan Sunandha Rajabhat University, Thammasat University and Green TVET Guidelines (Unesco).

Veridian E-Journal, Silpakorn University
ISSN 1906 – 3431

The analysis of the aspects of green campus mostly used in the universities and organizations, it can be concluded that there are 13 aspects and 148 indicators/activities;

1) Energy Management related to promotions of saving energy as using saving energy devices,saving energy lifestyle and renewable energy, consists of 24 indicators/activities.

2) Water Management related to the efficiency water using, supplying match to water using demand, and using water supply and natural water sources together, and decreasing water usage, increase water conservation program, piped water using efficiency, consists of 18 indicators/activities.

3) Waste Management related to reduce, reuse, recycle and recovery waste and waste water treatment system, consists of 20 indicators/activities.

4) Campus Recycling related to develop and maintain a cost effective and efficient waste management program that focuses on reducing, reusing and recycling with trash disposal as a last resort, consists of 6 indicators/activities.

5) Transportation related to offer a wide variety of transportation choices for students, school, and staff to help conserve natural and financial resources, consists of 24 indicators/activities.

6) Campus Setting and Infrastructure related to provide more space for greenery and in safeguarding environment, as well as developing sustainable energy, consists of 15 indicators/activities.

7) Air and Climate related to reduce energy using, expand the use of renewable energy, and become carbon neutral, consists of 12 indicators/activities.

8) Land Usage related to how to manage, develop, and grow on land. To plant more species trees, and also to take an environmentally sensitive approach to pest management and encourage the use of non-toxic, natural herbicides, consists of 8 indicators/activities.

9) Landscape Management related to landscape design, maintenance, and operations. Maintenance and landscaping, reduction of use of pesticides and herbicides, eradication of invasive species, selection of native plant species, conservation, retention, and recycling of water, consists of 3 indicators/activities.

10) Green Building related to a green building has four main elements or components on which it is designed: materials, energy, water and health to make green building more sustainable, consists of 6 indicators/activities.

11) Purchasing related to the purchasing power to make a difference in the sustainability of its supply chains. Its overarching objective is to “buy less and buy better.” To this end, it encourages its procurement professionals to make sustainable purchasing decisions, consists of 3 indicators/activities.

12) Safe and Healthy Environment related to use environmentally preferable cleaners, provide some places for relax in the campus, consists of 2 indicators/activities.

13) Food and Dining Service related to striving to reduce the impacts of food system, while still providing wholesome and quality food at a reasonable price, consists of 7 indicators/activities.

2. Results of the assessment of propriety and feasibility of aspects of green campus for application in TVET schools in Lao PDR

For the assessors of the assessment of propriety and feasibility of aspects of green campus for application in TVET schools in Lao PDR (n = 18), it was found that most of them are male (94.44%). For the ages, all of them are more than 45 years old. About the education, it was found that the majority group was master degree graduated (61.11%), bachelor degree (33.33%), doctoral degree (5.56%) respectively. The majority of the assessors have more than 20 years of working experience (55.56%), and followed by more than 15–20 years (44.44%). And the majority of them positioned vice director (66.67%), while 33.33% positioned director.

Regarding the results obtained from the analysis of aspects of green campus, 13 aspects and 148 indicators/activities were used to design the assessment form. The data obtained from the assessment were analyzed by using percentage. The percentage of both of propriety and feasibility of each aspect and its indicators/activities were considered the consensus as 80% up of the rating an item of question on “Agree” and above (Strøm et al., 2017). The results indicated that 10 aspects could pass the set criterion as shown in the table 1:

Table 1: The Results of the Assessment of Propriety and Feasibility of Aspect of Green Campus for application in TVET School in Lao PDR

Aspects	Percentage of Propriety (%)			Percentage of Feasibility (%)		
	Agree	Strongly Agree	Total	Agree	Strongly Agree	Total
1. Energy Management	44.4	44.4	88.8	72.2	16.7	88.9
2. Water Management	55.6	33.3	88.9	72.2	11.1	83.3
3. Waste Management	50.0	44.4	94.4	66.7	22.2	88.9
4. Campus Recycling	66.7	27.8	94.5	44.4	38.9	83.3
5. Transportation	55.6	33.3	88.9	55.5	33.3	88.8
6. Campus Setting and Infrastructure	61.1	27.8	88.9	44.4	44.4	88.8
7. Air and Climate	50.0	5.6	55.6	38.9	5.6	44.5
8. Land Usage	50.0	44.4	94.4	66.7	27.8	94.5
9. Landscape Management	50.0	44.4	94.4	44.4	50	94.4
10. Green Building	38.9	27.8	66.7	33.3	33.3	66.6
11. Purchasing	44.4	11.1	55.5	55.6	11.1	66.7
12. Safe and Healthy Environment	55.6	38.9	94.5	66.7	27.8	94.5
13. Food and Dining Service	66.7	27.8	94.5	66.7	27.8	94.5

Concerning the assessment results of propriety and feasibility of indicator/activity of each aspect, it was found that there are 29 indicators/activities could reach the consensus as follows:

1) Energy Management with 4 indicators/activities; 2) Water Management with 7 indicators/activities; 3) Waste Management with 9 indicators/activities; 4) Campus Recycling with 1 indicator/activity; 5) Transportation with 1 indicator/activity; 6) Campus Setting and Infrastructure with indicator/activity; 7) Land Usage with 2 indicators/activities; 8) Landscape Management with 2 indicators/activities; 9) Safe and Healthy Environment with 1 indicator/activity; and 10) Food and Dining Service with 1 indicator/activity.

3. Results of the evaluation of current operations of TVET schools towards green campus in Lao PDR

The current operations of TVET schools towards green campus in Lao PDR were defined by means of evaluation the real circumstance by 12 evaluators from TVET schools and TVET organizations. For the evaluators, it was found that most of them are male (91.67%). For the ages, all of them are more than 45 years old. The majority of the evaluators graduated with the master's degree (66.67%). The half of the evaluators have more than 15–20 years and

a half of them have more than 20 years of working experience. The majority of the evaluators positioned as vice director (75%), while 25% positioned as director.

For the evaluation, the evaluators evaluated based on guidelines of evaluation, condition and criteria written in the guidebook, and scored on working operations based on Deming cycle or PDCA cycle. The researcher applied Delphi method that is able to allow the evaluators, as a whole, to ultimately reach a convergence in opinion.

The evaluation of current operations of 3 TVET schools; namely Pakpasak Technical College, Lao-German Technical College, and Dongkhamxang Agriculture Technical School, towards green campus, the scoring followed the step of work operations of PDCA cycle, as follows: if done P = 1, P+D = 2, P+D+C= 3 and P+D+C+A = 4. The results indicated as follows:

3.1. The 3 TVET schools have conducted their current school activities that are in accordance with the activities of aspects of green campus as follows:

3.1.1 **Pakpasak Technical College** can conducted 8 aspects;

1) Energy Management (4 activities; Enable sleep mode on all printers, copiers, and computers =1, Saving energy on non-academic time =3, Reduce electricity use by utilizing natural light =1, and Turn off lights when not in use during the day and at night =3);

2) Water Management (7 activities; Water conservation program =1, Water recycling program =1, Usage of water efficient appliances (tap, sanitary ware) =2, Reuse waste water from sink =1, Water usage reduction =1, Reclaimed water facility =2, and Optimizing the water resources usage =2);

3) Waste Management (7 activities; Set double sided printing as the default setting on all computers and printers =2, Use reusable dishware, including coffee mugs, plates, silverware, etc. =2, Waste minimization =1, Waste diversion =2, Reduce the number of printing material =2, Separate waste collection in campus =1, and The garbage collection point =2);

4) Campus Recycling (1 activity; Pick-up schedule =2);

5) Transportation (1 activity; Parking area type =2);

6) Campus Setting and Infrastructure (1 activity; Area on campus covered in forested vegetation =1);

7) Land Usage (1 activity; Park development and recreation zones =1); and

8) Landscape Management (2 activities; Landscape management =1, and Landscape and hardscape maintenance =1)

3.1.2 **Lao-German Technical College** can conducted 6 aspects as follows:

1) Energy Management (3 activities; Saving energy on non-academic time =2, Reduce electricity use by utilizing natural light =1, and Turn off lights when not in use during the day and at night =2);

2) Water Management (2 activities; Usage of water efficient appliances (tap, sanitary ware) =2, and Reclaimed water facility =1);

3) Waste Management (7 activities; Set double sided printing as the default setting on all computers and printers =1, Use reusable dishware, including coffee mugs, plates, silverware, etc. =2, Recycling program for school waste =2, Waste minimization =1, Waste diversion =2, Separate waste collection in campus =2, and The garbage collection point =2);

4) Campus Recycling (1 activity; Pick-up schedule =2);

5) Transportation (1 activity; Parking area type =2); and

6) Landscape Management (2 activities; Landscape management =1, and Landscape and hardscape maintenance =1)

3.1.3 **Dongkhamxang Agriculture Technical School** has conducted 8 aspects;

1) Energy Management (2 activities; Saving energy on non-academic time =2, Turn off lights when not in use during the day and at night =2);

2) Water Management (3 activities; Usage of water efficient appliances (tap, sanitary ware) =2, Reclaimed water facility =2, and Optimizing the water resources usage =1);

3) Waste Management (6 activities; Use reusable dishware, including coffee mugs, plates, silverware, etc. =2, Organic waste treatment =3, Waste minimization =1, Waste diversion =2, Reduce the number of printing material =2, and The garbage collection point =2);

4) Campus Recycling (1 activity; Pick-up schedule =3);

5) Campus Setting and Infrastructure (1 activity; Area on campus covered in forested vegetation =2);

6) Land Usage (2 activities; Park development and recreation zones =1, and Decreased usage of hazardous chemicals in the gardening, such as pesticides =3);

7) Landscape Management (2 activities; Landscape management =3, and Landscape and hardscape maintenance =3); and

8) Food and Dining Service (1 activity; Organic growers club =3)

The evaluation results also revealed that the 3 TVET schools have conducted their activities in each aspect, through P step, P-D step and P-D-C step only, but do not reach

to P-D-C-A step. However, the finding also indicated that there is only 1 aspect; Food and Dining Service that Dongkhamxang Agriculture Technical School only has conducted its activity.

3.2. The 3 TVET schools have conducted same activities in same aspects as follows:

3.2.1 Energy Management (2 activities; Saving energy on non-academic time, and Turn off lights when not in use during the day and at night);

3.2.2 Water Management (2 activities; Usage of water efficient appliances (tap, sanitary ware), and Reclaimed water facility);

3.2.3 Waste Management (4 activities; Use reusable dishware including coffee mugs, plates, silverware, etc., Waste minimization, Waste diversion, The garbage collection point);

3.2.4 Campus Recycling (1 activity; Pick-up schedule);

3.2.5 Landscape Management (2 activities; Landscape management, Landscape and hardscape maintenance);

3.3 The 3 TVET schools have not conducted any activity in the aspect of Safe and Healthy Environment.

Discussion

1. The results of assessment of aspects of green campus which are appropriate and feasible for application in TVET schools in Lao PDR

1.1 The results was found that there are 10 aspects and 29 indicators/activities which can be discussed as follows:

Focusing the assessors in this study, all of them highly agreed with the 10 aspects, since these aspects comply with the government strategy in environment protection and MoES' policy, especially the 3 competitions and 5 principles of education, and the assessors might also consider about the appropriateness of context of TVET schools, these are the factors to make them towards the 10 aspects and 29 indicators/activities selection. Thus, this situation is in accordance with The Seven Steps of the Green-Campus Programme (An Taisce, 2013) which proposed guideline that the first step of the Green-Campus Programme should involve establishing a viable Green-Campus Committee within the organizational structure, and also in line with Keoy et al. (2012) stated that to have any new project or new system implementation, we should consider the state of readiness among participants. However, the selected 10 aspects are in line with Green Campus in TVET of UNESCO; energy management, water management, waste management, and pollution control (Majumdar, 2010).

1.2 The results was found that there are 3 aspects (Air and Climate, Green Building and Purchasing) which are not appropriate and feasible to apply in TVET schools in Lao PDR, which can be discussed as follows:

According to the assessors highly disagreed, it might be 3 aspects are difficult for TVET schools to conduct, since 1) the policy of MoES does not concern to Air and Climate, 2) TVET schools have procurement which are different from sustainable purchasing; “to buy less and buy better”, and 3) a large amount of money, technology, good planning are necessary for Green Building construction. This refers to Limarunothai and Chuntuk (2016) stated that to develop green building, the management of the entire process is required to achieve quality green building. In addition, money, procurement, building technology and people are also needed.

3. The results of evaluation current operations of TVET schools towards green campus in Lao PDR

3.1 The results of evaluation current operations of TVET schools, was found that the 3 TVET schools have conducted their activities in 9 aspects which can be discussed as follows:

The 9 aspects are related to the 3 competitions of Education and Sports Sector, so the 3 TVET schools have usually conducted. Considering to 9 aspects, it was found that they are related to Wapeesilp (2011) who stated that verifying and evaluating the information in the physical aspect should consider 6 parameters: 1) using the electric power effectively, 2) using water effectively, 3) reducing of carbon dioxide, 4) the fundamental structure, 5) resources and environment, and 6) physical green area.

Furthermore, the results revealed that the 3 TVET schools have conducted each aspect in different step of PDCA, since it is about 3Ps: People, Process and Place of school are different. This refers to Keoy et al. (2012) who stated that when processing on becoming a sustainable campus, the 3Ps of organizations cannot be looked at separately, and corresponds to Jinda and Bangthamai (2016) stated that any institution can achieve to success, if its staffs use knowledges, and skills which are beneficial to their institution.

3.2 The results of evaluation current operations of TVET schools, was found that the 3 TVET schools have not conducted any activity in the aspect of Safe and Healthy Environment which can be discussed as follows:

Focusing on policy and strategy of MoES, it was found that there are no issue or content concerning to this aspect. It is referred to Keoy et al. (2012) as mentioned above, if TVET Department established the Green-Campus Committee, this situation would be opposite. However, this aspect should be considered and conducted by TVET schools, since it is similar to the topic of a healthy environment includes healthy people, which is the main importance for organization (Georgia Tech Campus Sustainability, 2017); and it is in accordance with the World Health Organization (2016) stated that "A healthy environment underpins a healthy population".

Recommendation

Policy term

Based on the results of the study, it found 10 aspects and 29 indicators/activities of the green campus, which the experts thought that they would be feasible to apply in Lao PDR. Thus, TVET Department, MoES should set them to be policy as 3 competitions, 3 characters of national education and 5 principles of education; and should give this policy to the TVET school management for practical for leading to green campus in Lao PDR.

Practical term

The findings of 10 aspects, 29 indicators/activities can be used to apply for operating in TVET schools in order to improve the current operations which they are weak points to be sustainable green school. Furthermore, TVET schools should convey knowledge about these aspects through lesson in order to raise awareness about environment to students.

Future Study term

This study concentrated on aspects of Green Campus and their indicators/activities. Hence, in further studies, TVET schools in countrywide should make feasibility study and development indicators/activities that are related to the context and working behaviors of TVET schools. This will make TVET schools in Lao PDR have own indicators/activities leading to Green Campus in the future.

Acknowledgements

The research is financed by the Vocational Education Development Institute (VEDI) under the Ministry of Education and Sports of Laos (MoES) and the Lao-German Development Cooperation (GIZ-Lao).

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