A Development of Collaborative Learning Process to Develop Sustainable Non-Smoking Behavior in Universities

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Abstract

This research aimed to study health promotion and anti-smoking need in order to propose a model for learning and campaigning against cigarette smoking for students at Rambhai Barni Rajabhat University, including 1) to study the attitudes and smoking behavior of students and propose a model for learning and campaigning against smoking for students at Rambhai Barni Rajabhat University, and 2) to compare the similarities and differences in the development of a cigarette campaign model and present the application guidelines from the lessons learned at Rambhai Barni Rajabhat University. The sample group consisted of 120 first to fourth grade students of Rambhai Barni Rajabhat University, divided into 60 controlled groups and 60 experimental groups. The researcher selected purposive sampling using student volunteers who participated in activities comprising 80 percent of the research process. The researcher managed a collaborative learning and enhancement process to develop an anti-smoking campaign in the university, including seven activities for experimental groups. A questionnaire was used to collect data, which were analyzed by percentage, mean ($\bar{x}$), standard deviation (SD), t-test, and paired-t-test. In addition, qualitative data were collected by participant observation, in-depth interview, focus group discussion and lessons learned by using after action review (AAR). Following all the activities, the data was analyzed and checked for quality by triangular method.

The research found that:

1. For the media and learning process development, students had a need for health promotion and an anti-smoking campaign using knowledge media to provide knowledge about the harm of smoking and how to avoid and prevent it in universities. An effective learning process design must incorporate interesting topics and learning activities suitable for the target groups.

2. As far as the learning process with respect to attitude and smoking avoidance behavior was concerned, using the t-test to distinguish between the experimental and control groups, it was found that before the experiment, there was no difference, but following the experiment, there was a significant difference ($t = 2.16$, $p = 0.03$) at the significance level of 0.05. That is, the experimental group had a mean score on knowledge of the harm of cigarette smoking ($\bar{x} = 4.61$, $SD = 0.26$) significantly greater than that of the control group ($\bar{x} = 4.50$, $SD = 0.29$). However, one month after the experiment, there was no difference. From the paired t-test, comparing the attitude and smoking avoidance behavior of students in the experimental group before and after the experiment, it was found that there was a significant difference ($t = -2.41$, $p = 0.02$). Average scores ($\bar{x} = 4.68$, $SD = 0.22$) were higher than before the experiment ($\bar{x} = 4.59$, $SD = 0.25$), but one month after the experiment there was no significant difference. For the control group, there was no significant difference before, during and one month after the experiment time.

3. With regard to the cigarette smoking knowledge campaign at university, it was found that the experimental group gained knowledge after participating in the collaborative learning and enhancement process to develop non-smoking practices at the university

rather than before participating in the process. The experimental group paid attention to the form of activities and intended activities. The results show that after the collaborative learning process to develop a campaign for sustainable non-smoking behavior in universities, the learning process and the media should be directed to specific target groups. As regards both knowledge and behavior, group analysis should be conducted and continued support provided to maintain the project.

4. As for the development of learning format and cigarette campaign, it was found that there are three main internal factors namely, (i) creative media (ii) development of the learning process, and (iii) learning community. Further, four external factors were important including (a) preparing people to create people, (b) preparing knowledge to create knowledge, (c) development of an external network, and (d) organizing culture. All these are important aspects of the design of cigarette campaign to promote sustainable non-smoking behavior in universities.

Keywords: Collaborative Learning Processes, Sustainable Non-Smoking University, Sustainable Non-Smoking Behavior

Introduction

Thailand has a long history of promotion non-smoking behaviors. In the year 1986, a non-governmental organization for public benefit (NGO) project entitled "Campaign for Non-smoking" was promulgated under the Doctor's House Foundation resulting in the enactment of two laws, the *Non-Smoker's Health Protection Act, (A.D. 1992) and Tobacco Products Control Act, (A.D. 1992).* A household survey of smoking behavior of the Thai population in 2015 found that Thais aged over 15 years consumed 10.9 million cigarettes. The number of smokers, accounting for 19.9 percent of all age groups, decreased from 2013 except for the age groups 19-24 years and 41-59 years. According to the 2014 survey, the cost to smokers averaged about 423 baht per month. Smokers who live in Bangkok paid the most, on average 810 baht per month (Pitayarangsarit, 2016).

Nowadays, the government has returned to focus on a campaign to reduce youth smoking with various anti-smoking policies to prevent smoking among youth. The price of cigarettes has increased as well as laws prohibiting the selling of cigarettes to children and smoking area restrictions, but the reduction in the number of smokers is less than expected. There are many ways to prevent smoking, especially in educational institutions.

According to a public opinion survey on teenage smoking in 2015 by Christian University which asked the opinions of 1,484 people aged over 18 years living in Kanchanaburi, Ratchaburi, Suphanburi and Nakhonpathom, 65.9% of the respondents agreed that teenage smoking was a very serious problem. It also found that the causes of smoking included: media, 46.7%; and copying friends 52.5; and 51.7 percent of them wanted to try. This concurs with results from the research of Prasomsak (2008) using sample groups totaling 400 people. It was found that most students who smoked had a father or brother who also smoked daily. Junnual and Suebsamran (2016) also found that 11.5 percent of students smoked and of those who did, 56.5 percent started by coping friends. In addition, Chayawiwattanawong, (2010) that the main cause of smoking came from following friends in the group. From these researches, it is clear that teenagers are curious about smoking and seek to imitate friends who smoke. Aware of such behavior in children and youth, the research team considers that a continuous health promotion to create a learning process for children and youth may be a way to prevent smoking and drug-taking by youth. It thus set up this research project through which researchers could develop a cooperative, sustainable learning model concerning cigarettes to serve as a guideline for campaigning and promoting non-smoking in educational institutes.

Research Objectives

1. To study the attitudes and smoking behavior of students and propose a model for learning and campaigning against smoking for students at Rambhai Barni Rajabhat University

2. To compare the similarities and differences in the development of a cigarette campaign model and present the application guidelines from the lessons learned at Rambhai Barni Rajabhat University

Methods and Materials

The sample group consisted of 120 first to fourth grade students of Rambhai Barni Rajabhat University, divided into a control group and experimental group comprising 60 students each selected by purposive sampling. The qualitative method includes in-depth interviews of 3 target groups consisting of the teacher responsible for smoking policy, supervisor of student activities, 3 student representatives, and 3 student leaders. As for focus group discussion, this involved the participation of a group of seven and a student representative. The researcher selected purposive sampling using student volunteers were able to participate in activities comprising 80 percent of the research process. In addition, the qualitative data were collected by participant observation, in-depth interview, focus group discussion and lessons learned by using after action review (AAR). After completion of all activities, the data was analyzed and checked for quality by triangular method.

Designing Activities and Creating Learning Processes

The researcher designed the following steps

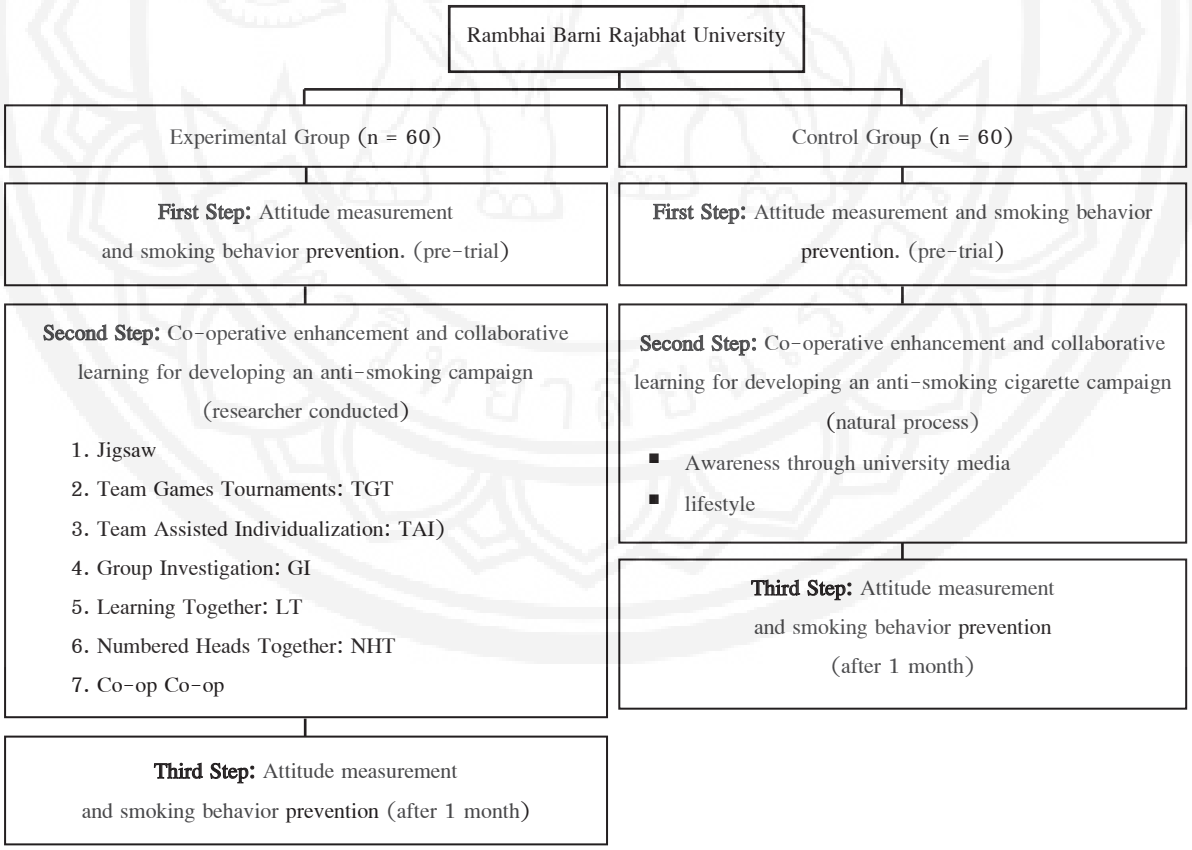

Figure 1 Research Process Diagram

From the Diagram, the Researcher has done the Following:

1. Experimental Group: The researcher designed the activities according to the following steps with 60 experimental groups participating in 3 activities.

First Step: Attitude measurement and smoking behavior prevention. (pre-trial)

Second Step: Co-operative enhancement and collaborative learning for developing an anti-smoking campaign (researcher conducted) were 1. Jigsaw 2. Team Games Tournaments: TGT 3. Team Assisted Individualization: TAI) 4. Group Investigation: GI 5. Learning Together: LT 6. Numbered Heads Together: NHT 7. Co-op Co-op

Third Step: Attitude measurement and smoking behavior prevention (after 1 month)

2. Control Group

First Step: Attitude measurement and smoking behavior prevention. (pre-trial)

Second Step: Co-operative enhancement and collaborative learning for developing an anti-smoking cigarette campaign (natural process) by using awareness through university media and lifestyle.

Third Step: Attitude measurement and smoking behavior prevention (after 1 month)

Each activity was designed to strengthen and modify behavior through seven processes as part of the activities.

- The researcher guided students to know and understand the activities.
- The researcher has divided the students into five groups and to arrange a chair in a circle.
- The researcher distributed brochure on two topics per group with each group receiving different content.
- After that, the students read and understand the information in the brochure and make a mind map on paper.
- The students present the mind map and asked two questions per group
- The researcher has a reward for a group of students who can help answer questions correctly

The researchers developed enhanced learning media covering the following 10 topics as part of the learn process: 1) history of cigarettes; 2) types of cigarette products; 3) diseases caused by cigarettes; 4) 10 tips for quitting smoking; 5) harm from cigarettes; 6) helping teenagers avoid smoking; 7) alternative methods of quitting smoking; 8) alternatives to smoking cigarettes; 9) encouraging friends to quit smoking; 10) best practices in creating a non-smoking university and a non-smoking life.

Data Analysis

The data analysis used the computer program SPSS with the significance level set at .05.

1. Personal data of the experimental and control groups was analyzed by frequency, percentage, chi-square test and fisher's exact test.

2. The attitude mean scores and smoking behavior of students participating in the project process was compared between the experimental group and the control groups, pre-test, post-test, and then after 1 month using t-test statistics.

3. The attitude mean scores and smoking behavior of students in both the control and experimental groups were compared pre-trial, post-trial, and then after 1 month using paired t-test statistics.

Results

Learning Process, Attitudes and Behaviors Related to Smoking Results

The researcher divided the results of the learning process, and the attitudes and behavior related to smoking prevention into IV parts. The first objective comprised the following three parts. The first part: learning process, attitudes and behaviors related to smoking results based on quantitative methodology, and the second part: learning process, attitudes and behaviors related to smoking results based on qualitative methodology. The third part

included the results of knowledge. The second objective as the following the fourth part anti-smoking campaign in universities as follows:

Part I: Learning Process, Attitudes and Behaviors Related to Smoking Results Based on Quantitative Methodology Comparing the Characteristics of Data between the Experimental Group, and the Control Group

Comparing the data characteristics of the experimental group with that of the control group using chi-square statistics, and the fisher exact probability test, it was found that there were no significant differences in terms of sex, age, residence, smoking status among family members, and the smoking habits of close friends, either on or off campus. The participants in both groups were mostly female and aged between 18 and 30 years. Most lived on campus or with their parents or relatives. Family members and close friends both inside and outside the university did not smoke, but the two groups differed in terms of study year and discipline: most of the experimental group studied at first year bachelor degree level in Thai, with an English language major, and most of these in the control group studied at 4th year bachelor degree level with a mathematics major.

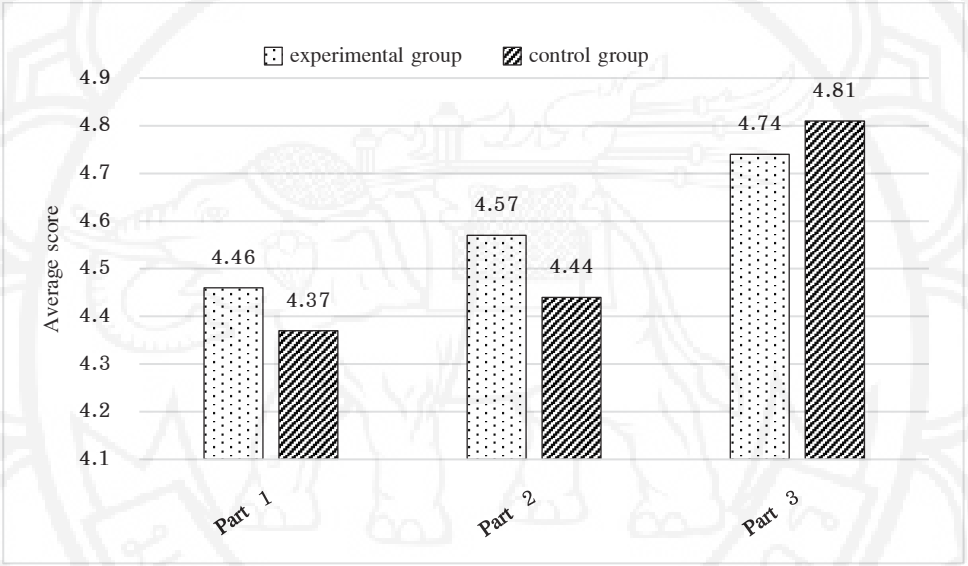

Figure 2 Comparing the Attitude and Smoking Avoidance Behavior Mean Scores of Students in the Experimental and Control Groups (Pre-Trial)

Comparing the attitude and smoking avoidance behavior mean scores of students in the experimental and control groups according to the questionnaire:

Part 1 - knowledge of the harm caused by smoking.

Part 2 - attitudes towards smoking.

Part 3 - behavior to avoid smoking.

The comparison of the attitude and smoking preventive behaviors between the experimental group and the control group in pre-trial study found that as for the first part: the knowledge of cigarette harm, the second part: student's attitude towards smoking, and the third part: the behavior of students in the prevention of smoking, none were significantly different at the 0.05 level.

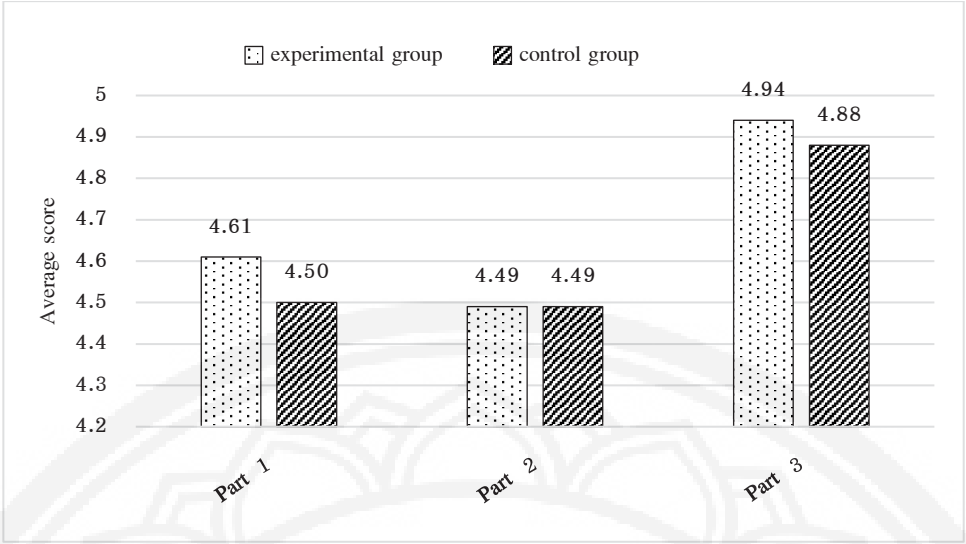

Figure 3 Comparing the Attitude and Smoking Avoidance Behavior Mean Scores of Students who Participated in the Process in the Experimental and Control Groups (Post-Trial)

Comparing the attitude and smoking avoidance behavior mean scores of students who participated in the process in the experimental and control groups according to the questionnaire:

Part 1 - knowledge of the harm caused by smoking.

Part 2 - attitudes towards smoking.

Part 3 - behavior to avoid smoking.

The comparison of the attitude and smoking preventive behaviors between the experimental group and the control group in post-trial stud found that as for the second part: student's attitude towards smoking and the third part: the behavior of students in the prevention of smoking, they were not significantly different at the 0.05 level. However, the first part: the knowledge of cigarette harm was significantly different at the 0.05 level.

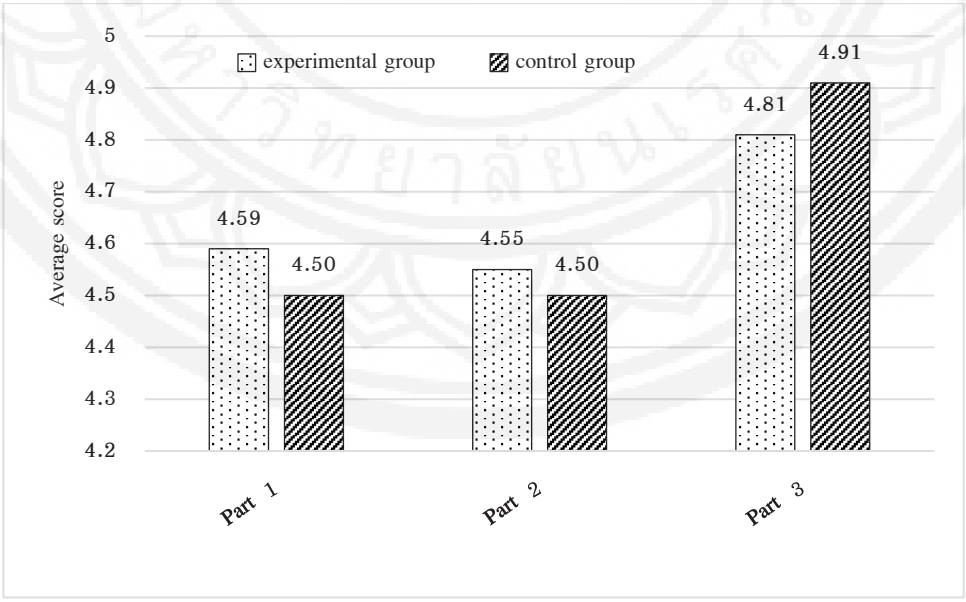

Figure 4 Comparing the Mean Attitude and Smoking Avoidance Behavior Scores of Students in the Experimental and Control Groups (after 1 Month)

Comparing the mean attitude and smoking avoidance behavior scores of students in the experimental and control groups according to the questionnaire:

Part 1 – knowledge of the harm caused by smoking.

Part 2 – attitudes towards smoking.

Part 3 – behavior to avoid smoking.

The comparison of the attitude and smoking preventive behaviors between the experimental group and the control group after 1 mouth found that the first part: the knowledge of cigarette harm, the second part: student's attitude towards smoking and the third part: the behavior of students in the prevention of smoking were not significantly different at the 0.05 level.

Table 1 Comparing the Attitude and Smoking Avoidance Behavior Mean Scores of Students in the Experimental Group and Students in the Control Group in the Pre-Trial and Post-Trial Stages and then One Month Later Using the Independent Sample Test

Sample Group	Experimental Group $\bar{x}$ (SD)	Control Group $\bar{x}$ (SD)	t	p
Pre-Trial	4.59 (0.37)	4.54 (0.45)	1.26	0.21
Post-Trial	4.68 (0.36)	4.62 (0.43)	1.43	0.15
after 1 Month	4.65 (0.43)	4.63 (0.42)	0.32	0.75

From the table 1, it was found that the results of the three measurements were not significantly different at the 0.05 significance level.

Table 2 Comparing the Attitude and Smoking Avoidance Behavior Mean Scores of the Experimental Group in the Pre-Trial and Post-Trial Stages, and then One Month Later Using Paired Sample T-Test

Sample Group	$\bar{x}$	SD	t	p
Pre-Trial	4.59	0.25	-2.41	0.02*
Post-Trial	4.68	0.22		
Post-Trial	4.68	0.22	0.70	0.50
after 1 Month Process	4.65	0.32		

* $p < 0.05$

From Table 2 it was found that there was a difference at the significance level of 0.05. That is, after the experiment, the attitude and smoking avoidance behavior mean scores were higher than before the experiment ($t = -2.41$, $p = 0.02$). Then, when comparing the attitude and smoking avoidance behavior mean score of the students it was found that the mean score at the post-trial stage, and then 1 month later were not significantly different.

Table 3 Comparing the Attitude and Smoking Avoidance Behavior Mean Scores of Students in the Control Group in the Pre-Trial, Post-Trial Process, and then One Month Later Using Paired Sample T-Test

Sample Group	$\bar{x}$	SD	t	p
Pre-Trial	4.54	0.28	-1.49	0.14
Post-Trial	4.62	0.28		
Post-Trial	4.62	0.28	-0.27	0.79
after 1 Month	4.63	0.23		

Table 3 it was found that the average scores were not significantly different. And when comparing of the attitude, and smoking avoidance behavior mean scores of the students in the control group who participated in the post-trial, and then 1 month later, they were also found to be not significantly different.

Part II: Learning Process, Attitudes and Behaviors Related to Smoking Results Based on Qualitative Methodology

The results from in-dept interviews and focus group discussion with the students who participated in the co-operative enhancement and collaborative learning process to developing an anti-smoking campaign the researcher used content analysis of the seven learning processes focusing on students to reflect three important topics including learning process, attitude towards cigarettes and smoking avoidance behavior were as follows.

- **Learning Process:** The results from the co-operative enhancement and collaborative learning process to develop an anti-smoking campaign indicate that students were able to work together as a team, exchange ideas and opinions with friends, practice presentations in front of the class, and gain knowledge about cigarettes, the harm of cigarettes, compounds in cigarettes that are harmful to the body, how to avoid smoking, and places at risk from smoking, and could successfully pass on their knowledge to encourage those who smoked to quit.

"I had the chance to work in a group, co-operate with friends, work together in a team, exchange ideas, gain knowledge about cigarettes, and the harm of cigarettes. I can adjust my everyday life activities to avoid them and protect myself by not getting involved with cigarettes or narcotics" (focus group discussion, 6 February 2018).

- **Attitude towards Cigarettes:** The students who participated in the co-operative enhancement and collaborative learning process to develop an anti-smoking campaign believed that smoking is harmful to one's health, causes multiple diseases, and people should avoid it. They warn people close to them that smoking is bad, as revealed in except from a group discussion below:

"*Smoking is not good because it affects the health. There are many diseases that are caused by smoking and an increased risk of respiratory problems. Cigarette smoke is a pollutant to the smoker and people around them. People around them get increased risk. It can cause death. Smoking is dangerous*" (focus group discussion, 6 February 2018).

- **Smoking Avoidance Behavior:** Most of the students who joined the co-operative enhancement and collaborative learning process to develop an anti-smoking campaign did not smoke. Students exhibiting smoking avoidance behavior, generally take care of themselves and do not smoke. The following excepts were taken from the group discussion.

"*We are non-smokers, but we have to suffer from people who smoke around us. Our friends or family members smoke so we have to keep away from cigarette smoke. Sometimes I have to get away from the smoke and sometimes, we have to hold our breath because of smoke from cigarettes that can cause chest tightness and difficulty breathing*" (focus group discussion, 6 February 2018).

Learning process management used in this research was important so that students could learn about cigarettes through learning activities. Students exchanged knowledge both in their own groups and outside the group and were involved in creative learning. They realized that most of their friends did not smoke and that smoking was not a good thing, but that society accepted it. This made students less likely to interfere when it came to smoking. They tried to avoid people who smoked because they were afraid for their own health. As for smoking avoidance behavior, students gained more knowledge from the learning process by organizing learning activities that taught them how to avoid smoking and how to offer advice to people nearby and family members who did smoke.

Part III: The Results of Knowledge

The researcher designed the co-operative enhancement and collaborative learning process to develop sustainable non-smoking behavior in universities with a total of seven activities for students to practice and learn from as shown in Table 4.

Table 4 Co-operative Enhancement and Collaborative Learning to Develop Sustainable Non-Smoking Behavior in Universities

Process	Objective	Activity	Remark Results
1. Jigsaw	To provide students with communication and presentation skills	- Students studied information brochures and then presented on 2 topics in front of the class. - Each group received a different topic from brochure.	- Students possessed the skills to communicate and participate in cigarette campaigns. - Students were interested in learning from the brochure content.
2. Teams Games Tournaments: TGT	For students to be able to work as a group and help friends from the group	- Each group competed to answer questions. The group that answered the question correctly would win a prize. - Students cooperated and helped each other within the group.	- Students could design group processes and undertake activities according to the objectives. - Students worked together in groups.
3. Team Assisted Individualization: TAI	For students to be able to work as a group and help friends from the group	- Tasks were divided for students to work together in groups. The students came up with ideas, helped each other, and discussed together. - The students were responsible for learning.	- Students cooperated and designed participation activities well. - Students worked in groups well.
4. Group Investigation: GI	For students to be able to study by themselves	- Students searched information about diseases and hazards caused by cigarettes from their mobile phones. - Students used their skills to search information from internet quickly.	- Students had access to various resources for study. - Students used smart phones to search information.
5. Learning Together: LT	For students to be able to work as a group and help partners in the group	- Divided task for students to work together in groups. The students used their idea, helped each other, and discussed together. - Students summarized the content according to understanding as a mind map.	- Students could work in groups and participate. - Students worked in groups, and worked well together.
6. Numbered Heads Together: NHT	For students to be able to work as a group and practice analysis skill	- Divided tasks for students to work together in groups. The students came up with ideas, helped each other, and discussed together. - All students in the group have knowledge about appropriate smoking behavior, and have better development ideas.	- Students demonstrated a systematic thinking process to connect reasoning and results. - Students worked in groups, and worked well together.
7. Co-op Co-op	For students to be able to work as a group and help partners in the group	- Divided tasks for students to work together in groups. The students came up with ideas, helped each other, and discussed together. - Students practiced the tasks assigned according to their ability, and listened to the opinions of other group members.	- Students could design group work and demonstrate responsibility well. - Students worked in groups well.

Part IV: Anti-Smoking Campaign in Universities

1. Select Groups to Create a Suitable Campaign

Teenage is an age of changes-physically, emotionally and socially, so there are various accompanying problems. In particular, behavioral problems are common and teenagers tend to take risks in learning and pay more attention to friend with when they spend more time then family, especially if they live on campus. Teenagers are easily persuaded with a desire to try smoking, seeing it as a challenge, exciting and fun. Even so, they know that it is not good for one's health. Some teens think that if they don't smoke they won't be accepted in the group. They also believe that smoking can relieve stress, which is not correct.

2. Linking the Mission of Educational Institutions and Universities

The researchers expected universities to be aware, and recognize the importance of a campaign to make universities sustainable non-smoking zones. Universities need to support activities to help the campaign be successful, and that can be done in three ways as follows:

2.1 Clear notification of the university's policy. The university should appoint a university operations committee for the anti-smoking campaign. There should be concrete teaching and learning about cigarette control in the curriculum, and active exchange of research results related to the cigarette campaign with network partners in order to maintain the initiative.

2.2 Public awareness of the dangers of cigarettes to prevent both personnel and students from taking up smoking, such as planning non-smoking areas and installing non-smoking signs, not allowing the sale of cigarettes in the university, making exhibitions about the harm of cigarettes, organizing activities to increase life skills, and organizing activities to convince and encourage those who wish to quit smoking.

2.3 Treatment and rehabilitation of smokers by opening a clinic to give advice about how to reduce and stop smoking and treatment where appropriate by medical personnel or specialists in counseling.

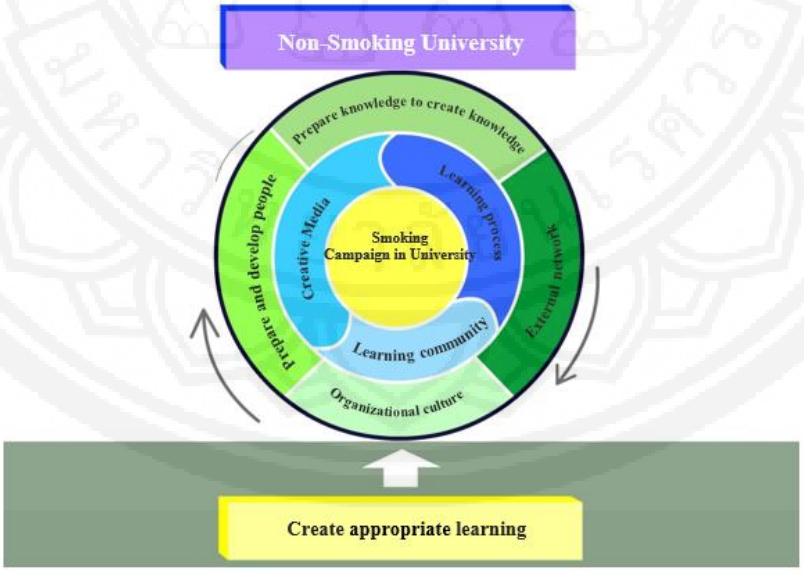

Figure 6 Cigarette Campaign Model for Sustainable Non-Smoking Behaviour in Universities

The campaign to develop sustainable non-smoking behavior in universities consists of processes to enhance the potential to develop non-smoking behavior in universities as well as internal factors, external factors, process results, and the results of awareness raising efforts as follows:

1. Process to Enhance the Potential of Anti-Smoking Campaigns in Universities

Internal Factors

1) Creative Media: Internal learning consisted of knowledge brochures that the researchers designed and developed to be concise, easy to understand, accessible to the target group, inexpensive, portable, and convenient. The starting point was online media comprising: 1) history of cigarettes; 2) types of cigarette products; 3) diseases caused by cigarettes; 4) 10 tips for quitting smoking; 5) harm from cigarettes; 6) helping teenagers avoid smoking; 7) alternative methods of quitting smoking; 8) alternatives to smoking cigarettes; 9) encouraging friends to quit smoking; 10) best practices in creating a non-smoking university and a non-smoking life.

2) Learning Process: The researchers used the techniques to summarize the lesson with a mind map used to organize the learning process. Mind maps help to organize ideas systematically, and enhance skills in data analysis and synthesis.

3) Learning Community: The researchers motivated students to participate in the learning process, and divided the learning groups according to issues to practice various learning activities in campaigning and preventing smoking.

External Factors

4) Knowledge Preparation: The researchers assessed the group of students before organizing the learning process, enabling the cooperative learning process to be sustainable to achieve its objectives. The analysis of the context and policies of educational institutions, the courses that students study and the students themselves, enabled the researchers to organize activities and bring knowledge about the harm of cigarettes to students in accordance with the requirements.

5) Preparing People and Developing People:

The research team comprised a number of researchers from various fields, including experts in organizing learning processes, education, community and social development, learning media, community health, health promotion, Thai traditional medicine, movement activity, and health science.

The leader of the students was required to demonstrate leadership, have a volunteer spirit, be accepted by others and able to communicate well.

6) Cultural Organization: In the process of empowerment, learning activities had to be appropriate to the culture of the organization, and in accord with various projects related to the university's cigarette campaign.

7) University Network Co-operation: This consists of university scholars who provided knowledge and contributed to the learning process to prevent smoking in universities. The university network consists of district health officials who provided knowledge and suggestions on smoking. Funding for this research was from the National Alliance for Tobacco Free Thailand.

2. Process Results

Co-operative enhancement and collaborative learning for developing a sustainable non-smoking behavior campaign for universities included various learning activities such as: jigsaw, teams-Games-Tournaments: (TGT), Team Assisted Individualization: (TAI), Group Investigation: (GI), Learning Together: (LT), Numbered Heads Together: (NHT), and Co-op Co-op. The researchers designed the learning activities in such a way that

students could divide into groups to practice all the learning activities. This was to create appropriate learning, and allow students to practice.

3. Awareness Results

All students and others became aware of the anti-smoking campaign to make Rambhai Barni Rajabhat University a sustainable non-smoking educational institution.

Discussion

In this study, the researchers used the concept of cooperative learning process to develop guidelines for a sustainable non-smoking university. Seven learning activities were used as a tool to develop collaborative learning in this study. The results of the study confirmed that organizing the learning process enabled the students gain more knowledge about cigarettes. It can be seen that the average attitude score and smoking avoidance behavior of students participating in the project-based process were improved. In the experimental group, there was a significant difference in the mean score after the experiment ($p < 0.05$). According to Tabtimthong, Junprasert, & Homsin (2012) study, after intervention, the mean scores of perceived self-efficacy, outcome expectation, and smoking avoidance behavior in the experimental group of early adolescent males were statistically significant different, with higher scores than those of the control group. Promoting self-efficacy through participatory learning clearly improved perceived self-efficacy, outcome expectation and smoking avoidance behavior in those early male adolescents, So, the promotion of self-efficacy should be applied to increase smoking avoidance behavior in early male adolescents. If most students have high levels of knowledge about the harm of cigarettes and negative attitudes towards smoking this will affect their smoking behavior (Ingkapakorn, 2014). Providing knowledge to young people leading to greater awareness and understanding of the harm of cigarettes can result in youths reducing their smoking or quitting altogether (Prateepkaew, Lomprom, & Promchai, 2009). Therefore, organizing the learning process or cultivating an appropriate attitude is important for helping these young people avoid cigarettes. Strategies for doing this include lectures from researchers, watching videos or making comments (Boonyawan, Kaewpan, Kalampakorn, & Sitdhiraksa, 2012). The forming of an interdisciplinary researcher team with skills needed to create a more effective learning process will help integrate project operations and organize the process according to the project objectives as well (Satalalai, 2004). In addition, parents should behave as good models for their children, giving love, and taking care of them (Jarong, 2016) and instilling children with appropriate attitudes towards smoking to ensure a positive future for the country.

Conclusion

This study used a cooperative learning process to practice and help participants undertake activities together in all steps. This study can be used as model for future studies involving student groups aimed at a reduction of the rate of smoking and development of good individuals.

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