

Teachers' Knowledge, Attitude and Practices on Sustainable Consumption Focus on Food and Example of School Initiatives

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Abstract

In two of UNESCO Global Action Programme (GAP) (UNESCO, 2014) five priority action areas (numbers 2 and 5), places special emphasis on the conception of schools as elements in broader educational landscapes and on the need to develop educational institutions not only with regard to formal teaching, but more broadly by considering campus, curriculum and community (Carbach & Fischer, 2017). This paper reports on example of school initiatives to address sustainable consumption on food by focusing on two areas. Firstly, a study on teachers' knowledge, attitude and practices on sustainable consumption focus on food. Secondly, this paper also show case two schools' initiative to involve their students in healthy eating through the projects 'Choose...Decide...Evaluate for Healthy Living' and 'Healthy Food Campaign'.

A total of 90 teachers participated in the study on teachers' knowledge, attitude and practices on sustainable consumption focus on food. The teachers' knowledge, attitude and practices data was collected using questionnaires, which was part of a bigger study. Data on school initiatives to address sustainable consumption on food was extracted from RCE Penang's Sejahtera Club schools report as well as visit and interview with the teachers' involved in the initiatives.

The base line findings showed that the teachers in this study scored high on attitudes and practices but rather low on the knowledge component specific to sustainable consumption. Nonetheless, two schools reported good whole school initiative to encourage students to consume healthy food. The first project on 'Choose...Decide...Evaluate for Healthy Living' requires the students to chart a diary or scrap book their healthy activities over three months. The diary also includes charts, graphs and other graphic forms of their activities. Teachers act as facilitators to explain and encourage as well as enlighten students on the issues of healthy living and food choices. The 'Healthy Food Campaign' involves teachers together with students to embark on consuming healthy food through the following strategies: knowledge on healthy food, a project to banish junk food from schools and sunnah food awareness.

Introduction

Schools play an important role in the promotion and maintenance of the student's health. The school is now a key setting where the health education sectors can jointly take action to improve and sustain the health, nutrition and education that previously was beyond reach.

Ensuring good health at school can boost school enrolment and attendance. School health program can also help rural students to attain better education. Healthy students make better learners. It is equally important for school administrators to engage parents to play their roles in working together with teachers to support the growth of healthy and productive children.

Teachers’ Knowledge, Attitude and Practices on Education for Sustainable Development (ESD)

A total of 90 teachers participated in the research entitled “An Intervention Study using ‘Sustainability Module’ on Teachers’ ESD Knowledge, Attitude and Practices in Malaysia, Cambodia and Vietnam: A Comparative Study. There were 30 teachers from Malaysia, Cambodia and Vietnam respectively. The data was collected using questionnaire and focused group interview. The base line findings showed that all the teachers in this study has good knowledge and attitude and excellent for practices in ESD. An intervention workshop using ‘sustainability modules’ were carried out to enhance teachers’ ESD knowledge, attitude and practices. Findings from quantitative and qualitative data showed that teachers’ ESD knowledge, attitude and practices were enhanced after the intervention workshop. The results of the study is shown below:

Table 1

Summary of pre and post data for Malaysian, Vietnamese and Cambodian teachers’ ESD knowledge, attitude and practices.

Country	Malaysia		Cambodia		Vietnam	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
Mean Knowledge	72.75	83.30	65.55	84.43	63.33	86.97
Mean Attitude	54.35	54.65	51.64	56.55	53.88	56.57
Mean Practices	65.20	65.40	65.95	68.81	65.55	69.00

From the findings, it can be concluded that there was an increment 10.55 for the mean for knowledge for teachers in Malaysia. While for mean knowledge for teachers in Cambodia there was an increment of 18.88 and 23.64 for mean knowledge for Vietnamese teachers.

As for attitude, there was an increment of 0.3 for teachers in Malaysia and 4.91 for teachers in Cambodia finally, 2.69 for teachers in Vietnam.

For mean practices, there was an increment of 0.20 for teachers in Malaysia, while mean for practices for teachers in Cambodia increased 2.86 and for Vietnam there was an increment of 3.45.

As a conclusion, the intervention has successfully enhanced the level of teachers’ knowledge, attitude and practices on ESD.

Teachers' Knowledge, Attitude and Practices Focus on Sustainable Consumption and Production

From the research above, we extracted the items that related to sustainable consumption and production and run the data using SPSS. The result for the items are as below:

Country	Malaysia		Cambodia		Vietnam	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
Construct						
Items Knowledge						
Ecological constraint	2.85	3.75	2.66	3.31	2.50	3.52
Eradication of poverty	3.50	3.55	2.97	3.78	3.14	3.86
Poverty trap	3.45	3.60	2.67	3.41	1.93	3.14
Food wastage	3.55	3.85	2.77	3.28	3.21	4.03
Biodiversity	3.25	3.75	2.71	3.66	2.82	3.86
Climate Change	3.65	3.75	2.97	3.47	3.29	3.93
Items Attitude						
Humans should be prepared to make sacrifices to improve the quality of life for others	3.95	4.15	3.78	3.91	3.17	3.69
What I am doing in this country just give a little impact to the quality of human life in other countries	2.80	2.70	2.83	3.00	3.48	2.86
What other countries do to maintain or destroy the environment are not our business	1.80	1.65	2.24	2.58	1.76	2.14
Items Practices						
I encourage my student to participate in activities to eradicate poverty	3.95	3.60	4.26	4.38	4.11	4.29
I create awareness to my student on the benefits of taking nutritious food in everyday life	4.20	4.35	4.13	4.44	4.07	4.24
I encourage my student to practice good hygiene behaviour	4.25	4.40	4.30	4.44	4.43	4.52
I remind my student to avoid all junk food	4.15	4.35	4.17	4.44	3.74	3.90
I advice my student to think about the implication of their everyday actions	4.35	4.45	4.24	4.29	4.39	4.54

Based on the result, it can be concluded that, the mean of teachers' knowledge, attitude and practices on sustainable consumption and production improved after the intervention.

School Initiatives to address Sustainable Consumption Focus on Food

School 1: SK Convent Green Lane

SK Convent Green Lane, which situated in Penang, Malaysia, had organized a project on sustainable consumption focus on food. The project was coordinated and planned effectively from the month of July 2017 until October 2017. As the titled project says ‘‘Choose, Decide, Evaluate for Health Living’’, the teachers have decided to embark on the importance of healthy living. Healthy living gives joy to the meaning of life. In order to achieve healthy living, a few students had been chosen to decide and adapt a different change of lifestyle. First, to manage the project, the teachers act as facilitators to explain the aims and goals of healthy living. These students are required to understand good eating habits, able to learn nutrition values and healthy food. In addition, they did physical exercise to burn up calories. Students also required to chart a diary in a scrapbook with healthy activities they have done for a duration of 3 months. The, they wrote and described the impact of before and after the change of their eating habits and lifestyle. By undertaking this project, students able to experience a change of mind set towards healthy living. Lastly, students evaluate their project through interviews, videos and recording of graphs and charts. Teachers assist students by guiding and monitoring the progress of the project. The Global RCE as a network organization has contributed much to this program in bridging local and global perspectives by giving and sharing opportunities in diverse thematic areas. Hence, we have this 2017 RCE Awards for Innovative Projects on Education for Sustainable Development (ESD). The Global RCE acts as a platform to encourage schools to contribute, share and highlight their best practices. However, in any project, there are bound to have many challenges along the way with time constraint and limited human resources. Finally, we hope this project will be fruitful and beneficial towards the school and the students involved.

Results

In terms of output, this project has been successfully carried out as planned. Pupils could gain knowledge through ‘hands-on’ activities within their own environment outside the classroom. Current results were very positive and encouraging. Students were very responsive towards a Q & A session with an invited nutritionist, Madam Bharati Suresh Chand, Vice President of the Malaysian Pharmaceutical Society. Much knowledge on nutrition and healthy foods were imparted to pupils. They had cultivated good eating habits, learnt to choose different types of food with nutritional values and train to record their daily activities for healthy living. Obviously noted was a changed of lifestyle from the usual sedentary passive behavior to an active lively student. As students’ awareness of healthy lifestyle increases, students were disciplined and required to follow a routine of consuming good nutrition and physical exercises. Besides that, students enjoyed a variety of fun outdoor activities with their parents, thus spending quality time together. Course materials consist of scrap book, recording of day by day students’ observation and activities carried out for healthy living. Photos were taken as evidence and students design a suitable menu with recipes attached that contained food with nutritional values.

Impact

Impact of the project can be seen very clearly when students changed their behavioral patterns of their daily lives after following a routine of healthy food intake and doing regular exercises. This project has both short and long-term health benefits. Long term, eating a balanced diet, taking regular exercise and maintaining a healthy weight can add years to life and reduce the risk of certain diseases including cancer, diabetes, cardiovascular disease, osteoporosis and obesity. This not only improves their appearance but also has a positive impact on chronic disease prevention. When students adopt a healthy lifestyle, they not only feel and look better, but also experience a landslide of other healthful benefits. Living in a healthy way, however, requires that they commit to making some good choices and sticking with them. There are no magic pills when it comes to long-term health and wellness. The changes they made today can positively affect overall health and wellness. By reducing the intake of processed foods and beverages that are typically high in calories, sugar and unhealthy fat -- which undermine weight control -- students positively impact their weight and overall good health. Thus, while carrying out the project, students will be expected to reduce weight, obesity and eating healthy nutritious food to achieve their desired targets and aims in maintaining their health.

Challenges

Every project when implemented faced many challenges along the way. Students need much guidance for the project. Financial assistance has been a burden to the students. Students required much money for the scrap book and buying of stationary which were rather expensive.

When students participate in the project, they need money to buy healthy food. Parents need to play a role in the project and sometimes were required to take their children for holidays to maintain a healthy lifestyle. Some even had to buy a bicycle for the project.

Further development was hampered by the time constraint against them. They had to focus and study for examination. During the project, they had to complete their homework and attend private tuition too. The time limitation had added pressure and stress on them.

Teachers had to monitor and guide the pupils throughout the project. Teachers were overburdened with workload and other various duties so they had to stay back after class to make sure pupils complete the project on time.

Being a 3 months project, all participants must be disciplined while following a design routine. Participants may find difficulties to sustain the strict regime of a diet as desired results were not immediately known and seen. Much patience was needed to see them through completion of the program. Evaluation on changes can only be seen before and after the program implemented.

School 2: SRI Al-Itqan

SRI Al-Itqan which also known as Sekolah Rendah Islam Al-Itqan is an educational center aim at empowering future generation to balance this life and hereafter. SRI Al-Itqan is one of the Sejahtera Club school govern by RCE Penang. SRI Al-Itqan has organized a project on sustainable consumption focus on food entitled "Healthy Food Campaign". The project was run from September 2017 to October 2017. The objective of the project was to educate students on the healthy and sunnah food from Islamic perspective.

There were several activities was conducted in during the project implementation. First, the teachers created a campaign of healthy and sunnah food in the school environment. They put on banners and poster about healthy food especially at the canteen area. Secondly, the teachers monitored the food being sold at the canteen. They worked together with the canteen stalls. The canteen was obligatory to sell only healthy and sunnah food to the student. They were not allowed to sell junk food within the school area. Thirdly, the school also organize a program that focus on healthy food. They organized hands on activities for student to prepare a healthy meal such as sandwich, fruits and others. Fourthly, the school also work together with parents to educate the student about sustainable food consumption. Students were advisable to bring healthy packed meal from home prepared by their parents. From this project, the students were aware of the importance of healthy food to their health and it was sunnah to eat nutritious food and avoid junk food.

Conclusion

This report showed that students need the guidelines from teachers to gain knowledge about the importance of sustainable consumption on food. Therefore, teachers need to equip themselves with adequate knowledge, attitude and practices about sustainable consumption and production to create awareness and promote the healthy living and lifestyle to the students. Other than that, school can work together with the parents, and communities to create a healthy school environment where students love to eat healthy food.