



UNIVERSITI
TEKNOLOGI
MARA

Cawangan Kedah
Kampus Sungai Petani

Faculty of Administrative
Science and Policy Studies

i-SPIKE 2021

Leading An Artificial Innovation In Knowledge, Education And Design

i-SPIKE 2021 INTERNATIONAL EXHIBITION & SYMPOSIUM E-PROCEEDINGS

<https://ispike2021.uitm.edu.my/>

e-ISBN 978-967-2948-20-9

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Copy Editors : Azni Syafena Andin Salamat, Syazliiyati Ibrahim, Asrol Hasan, Nor Zaini Zainal Abidin, Fatihah Norazami Abdullah, Chaleeda Som Sak, Nor Asni Syahriza Abu Hassan & Muhamad Khairul Anuar Zulkepli

Layout Editor : Asrol Hasan

Cover Design : Syahrini Shawalludin

Published by : Universiti Teknologi MARA Cawangan Kedah,
Kampus Merbok,
08400 Merbok,
Kedah,
Malaysia.

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FUND FOR FOOD: A CAMPUS FOOD PANTRY TOOLKIT TO HELP FIGHT HUNGER ON CAMPUS

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ABSTRACT

Inadequate financial resources have led to food insecurity among students at higher institutions due to the increase in study fees, house rental costs, and food prices. As such, the increased living standards and price of goods are among the factors influencing food insecurity among university students. In fact, hunger and food insecurity are evident in this day and age, even on college campuses. Since college meal plan for students is especially too expensive for low-income students to bear, some students are forced to engage in part-time jobs to earn extra income for food and other expenses. This also includes living on a shoestring budget as college education becomes less affordable for university students. In view of these problems, campuses have recently established food pantries to help students. However, running a campus food pantry requires careful planning and a dedicated team of leaders and volunteers; hence, this study aims to provide a food pantry toolkit as a guideline to solve hunger and food insecurity among university students by setting up food pantries on campus to provide food and other essentials to the students in need. Depending on the campus, this program is run by the student government, other student organizations, or administrative departments such as the Office of Student Affairs. The food pantry toolkit should comprise the following facets: i) demonstrating the need for food pantries on campus by surveying the university students, faculty, and staff members; ii) community partnership through a fiscal sponsor and potential groups or companies as community partners; iii) setting up of space, equipment, and storage depending on the type of food to be distributed; and iv) food safety procedures via training and safe food handling provided to the volunteers. Considering the new-developed toolkit to fight hunger on campus as the innovation novelty of this study, universities in Malaysia are, therefore, expected to become a driving force in improving food insecurity by implementing the On-Campus Food Pantry Program to help ease student hunger.

Keywords: food pantry, toolkit, student hunger, campus, university student

INTRODUCTION

An increase in the standard of living and price of goods is one of the factors that influence insecurity food among university students. Collage meal plans for students are often too expensive, especially for low income students. Hunger and food insecurity are realities everywhere even on college campuses. As a college education becomes less and less affordable, more students are forced to live on a shoestring budget. In recent years, this problem has prompted many campuses to establish food pantries to help students in need.

Problem Statement

Students are difficult to support themselves while they were also paying for college. The literature suggests that the rate of food insecurity among college students is 1.5-4 times greater than the national average. Four out of five students work part-time jobs, averaging 19 hours per week while attending college.

Research Objective

The purpose of this study is to produce the toolkit that provides the resources that the student government needs in order to create and operate a successful food pantry on campus.

FOOD PANTRY TOOL KIT CONTENT

Innovation novelty: New toolkit and practice to fight hunger on campus

Advantage:

- Provide nourishment to people in need and it really does help.
- Help students enhance their leadership skills, social and soft skills through student enterprise program
- Free up funds to be spent for other purposes.
- Students from low-income families are provided food, they have additional money to meet other basic needs.

Table 1. Description of Food Pantry Toolkit

NO	TOOLKIT CONTENTS	DESCRIPTION
1.	FORM A STUDENT ENTREPRISES	- Student enterprise/company will help students to manage this food pantry efficiently
2.	COMMUNITY PARTNERSHIP	- Establish a relationship with the sponsor to have fundraising, donations, or discounted products.
3.	SETTING UP SPACE	- equipment and storage supplies - waiting is - secure storage - sample floor plan
4.	FOOD SAFETY PROCEDURES	- basic hygiene - food storage - food packing - cleaning

FOOD PANTRY TOOLKIT:



Figure 1. Food Pantry Toolkit

MODEL FOOD PANTRY:

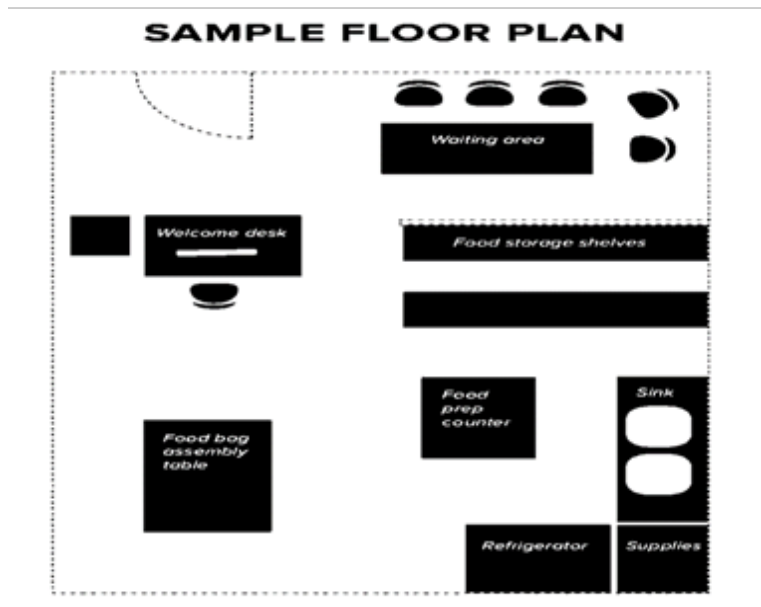


Figure 2. Sample Floor Plan

COMMERCIALIZATION:



Figure 5. UMK Food Pantry

STUDENT COMPANY:

A student enterprise will help students to manage all the programs efficiently.



Commercial Value

- Fund for Food is a complete guideline to guide implementation activity for universities/ College to start their food pantry program.
- This project can be a great opportunity for UMK to offer consultation projects on a food pantry in campus or other agency.

Importance to Education

- Fund for Food: Complete Guide to Fight Hunger on Campus is important to our education system to help B40 students to survive in their campus life.
- By providing enough food for students in need, it can help to enhance their academic performance
- The concept of “Student help Student” was one of the initiatives to guide the student to enhance their personal value and soft skill, as well as to produce first class students with good manners and performance.

CONCLUSION & RECOMMENDATION

In conclusion, universities in Malaysia are expected to become a driving force in improving the Food Bank Program by implementing On-Campus Food Pantry Program to help ease student hunger. The Fund for Food: Complete Guide to Fight Hunger on Campus could be

the best guide to start an on-campus food pantry.

REFERENCES

- USDA ERS - Key Statistics & Graphics, <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics.aspx> (accessed 4 March 2019).
- Wan Azdie Mohd Bakar, Shahidah Ismail, Suriati Sidek & Rozlin Abdul Rahman. (2019). Prevalence and factors affecting food insecurity among university students in Pahang, Malaysia, *Mal J Nutr*, 25, (1), 59-67.



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INTERNATIONAL EXHIBITION & SYMPOSIUM ON PRODUCTIVITY, INNOVATION, KNOWLEDGE & EDUCATION

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e ISBN 978-967-2948-20-9



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