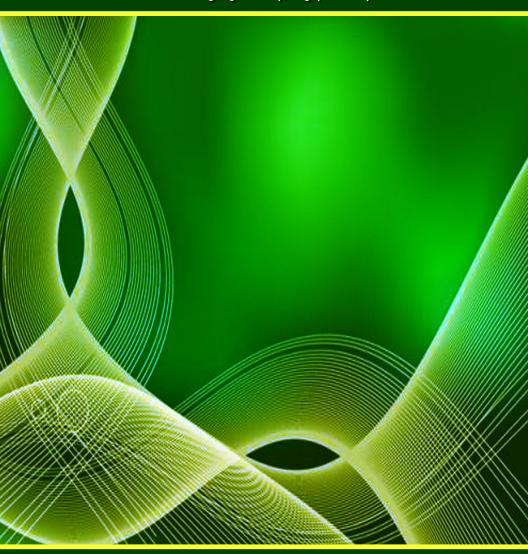
ISSN: 2661-4561



The Official Faculty Research Journal of St. Paul University Philippines
Tuguegarao City, Cagayan Valley 3500



Vol. XVIII, No. 1

SY 2015-20<u>16</u>

#### © Copyright 2016 St. Paul University Philippines All rights reserved.

No part of this book may be reproduced in any form or by any means without the permission in writing from the **authors** and **St. Paul University Philippines** 

ISSN NO. 2661-4561

Layout and Design by Dr. Jesus B. Pizarro

# RESEARCH DIGEST

The Official Faculty Research Journal of St. Paul University Philippines
Tuguegarao City, Cagayan Valley 3500

Vol. XVIII, No. 1

SY 2015-2016

# Published by RESEARCH AND PUBLICATIONS OFFICE St. Paul University Philippines Tuguegarao City, Cagayan Valley 3500

Re-published by
Ascendens Asia Publishing Pte. Ltd.
NLB Publisher Reg. No. R2019061600009
Republic of Singapore

#### **EDITORIAL BOARD**

EMOLYN M. IRINGAN, PhD

Editor-in-Chief

JOSEPHINE JOY D. LORICA, DNS

Associate Editor

INICIA C. BANSIG, PhD
JEREMY GODOFREDO C. MORALES, PhD
CORAZON M. DELA CRUZ, PhD
MA. ELIZABETH C. BAUA, DNS
MARIA VISITACION N. GUMABAY, DIT
GIGED T. BATTUNG, DIT
PILAR B. ACORDA, DME
JESUS B. PIZARRO, PPA
Publication Advisory Board

SR. MA. ADELINA J. PORTILLO, SPC, PhD SR. MERCEDITAS O. ANG, SPC, PhD AGRIPINA B. MARIBBAY, PhD Consultants

CONCEPCION G. DOYUGAN, PhD English Editor

MR. DARWIN JAKE B. FELINA

Layout Editor

MR. CHRISTIAN JADE G. RUAM

Technical Assistant

#### **EXTERNAL REFEREES**

PRESENITA C. AGUON, PhD ARVIN B. ALONZO, DIT LAURO S. ASPIRAS, PhD TEODORA L. BAQUIRAN, PhD MANUEL A. BELANGO, DEM ROMEO C. CELEMNTE, PhD **RONEL P. DELA CRUZ, PhD ELADIO MARTIN S. GUMABAY, DNS** TOMASA C. IRINGAN, PhD ARMENIO C. LIBAN, Jr., PhD MAIE JEAN N. MENDEZABAL, DME MADELYN MENOR, PhD CHARISMA V. PARAISO, DBM ANTHONY D. PARAS, DIT TEOTICIA C. TAGUIBAO, PhD DARIN C. TINDOWEN, PhD

#### **CONTENTS**

1 Rhetorical Analysis of the Persuasive Letters of Chinese Students

John Paul C. Tong, MAED

16 Level of Satisfaction of Fourth Year Hotel, Restaurant and Tourism Management Students of St. Paul University Philippines regarding their Educational Tour Charry Gretchen V. Avila, MBA

25 E-Portfolio for Tertiary Level Faculty Members of St. Paul University Philippines

Rucelj D. Pugeda, MIT

36 Exploring Occupational Interests of Entering Senior High School Students and their Preferred Academic Tracks in K–12 Perspective

Voltair T. Soriano, RGC Emolyn M. Iringan, Ph.D.

48 International Exposure of Paulinian Student Government Leaders: Ensuing Students' Readiness for Asean Integration

> Alma N. Quinagoran, MAED Emolyn M. Iringan, Ph.D.

58 Anti-Lethal Toxicity and Anti-Phospholipase A2 Enzyme Activity of Makahiya (Mimosa pudica) Root Extract against Philippine Cobra (Naja Philippinensis)

Melisa T. Reboldera, RPH, MPH, MSTChem

72 Research and Publications Office Data Management System Lyngelle D. Tolentino, MIT

#### Students' Performance Monitoring and Evaluation System 82 of St. Paul University Philippines

Carlos L. Babaran, Jr., MIT

#### Corporate Social Resposibility of Franchise-Based Firms 92 in Tuguegarao City

Rufo B. Tuddao, MAED

#### ASEAN Cuisine Preferences of Hotel, Restaurant and 102 Tourism Management Students of St. Paul University **Philippines**

Glen C. Cagurangan, MSHM Kimberley DC. Matammu, MSHM Aminiel C. Payoyo, MSHM

### RHETORICAL ANALYSIS OF THE PERSUASIVE LETTERS OF CHINESE STUDENTS

#### JOHN PAUL C. TONG, MAED

#### **ABSTRACT**

This descriptive-qualitative study aimed to analyze the persuasive letters of the Chinese students who were enrolled in the Bachelor of Science in Nursing Program of St. Paul University Philippines. The persuasion letters that were used as the corpus of this study were the outputs of the Chinese students in their Final Examination for Technical Writing and Writing in the Disciplines. The Rhetorical Analysis Tool was employed to investigate the form, content, and rhetoric embedded in the persuasive letters of the students. The study revealed that the students were able to establish ethos or personal credibility in their write-ups. Also, this study showed that the students were able to show persuasion by giving their personal experiences and factual information and using some Rhetorical Devices. Among the Rhetorical Devices used, this study revealed that Epithet and Metonymy were the most commonly used.

**Keywords:** Rhetoric, persuasion, rhetorical devices, form, content

#### INTRODUCTION

Learning a second language or even a foreign language has become a necessity especially if one desires to be globally competent. One of the macro skills in language learning that people must consider is 'writing.' Damayanti (2009) states that writing is a process of producing language that comes from our thought in a written form. Through writing, humans can express ideas or thoughts and their personal feelings or emotions. Writing connects people across time, space and culture. Because of the influence of writing, individuals can learn from yesterday, gain knowledge about today and design for tomorrow (villagehiker.com).

Writing-being inanimate, amoral and disinterested-can transmit good or evil. It can destroy or create, cover up or reveal. Writing can prevaricate or be straightforward. It can build up or tear down, poison or heal. Writing can cause conflict or encourage peace. Because writing in itself is neutral and indifferent, its purposes and results depend totally on the intentions and hearts of writers and their audiences (Kersletter, 2010).

Writing is considered as a means of communication. But, it is not only simply drawing a range of orthographic symbols; it involves a complex process where we have to use certain grammatical rules in organizing facts. It also tends to involve a thinking process from a human being, like what have been said by Hyland (2004) that writing has been characterized as written thinking. When we write, we do not only keep our purpose of writing in our mind, but we also have to think about how to organize them in the composition. Thus, writing is included as a productive skill. Students are charged to produce the ability in writing by the process of thinking. They must be more encouraged to express their ideas, experience, thought and feeling through their writing (Hyland, 2004).

Most students regard that writing is a difficult subject, especially when it relates to writing in the second language. According to Dvorak, as cited by Kern (2001), both first and second language writing is complexified by the additional of new resources and norms. Learning the structural elements of the language, new rhetorical conventions and perhaps even

new uses of writing does not replace, but it is added to what one already knows about writing from one's native language.

Lado (1967) as cited by Damayanti (2009) states that writing a foreign language and its graphic representation productively in ordinary writing situations. More specifically, he also adds that writing in a foreign language is the ability to use the structures, the lexical items, and their conventional representation in the ordinary matter of fact writing. Writing is not practiced in isolation; rather, skills are practiced in an interdependent fashion. It means that writing activity includes dictation or note taking; it also will involve a reading comprehension. Because of its complexity, writing must be practiced regularly and done step by step (Darmayanti, 2009).

Because of the differences between first languages from the foreign language, especially English, students often find problems in writing using English. It is because writing needs more considerations rather than three other skills because of the different rules in the way of ordering words into understandable sentences. In teaching writing, teachers should give students clear guidelines on how to plan and construct a phrase, a clause, and a sentence correctly and grammatically. Then, students also have to master some learning concepts such as a rule for constructing paragraphs; these are unity and coherence. It conforms to Kreidler's statement that the ultimate aim of writing is to give the students the opportunity to express their ideas facilely; using the language pattern they have learned.

One of the reasons why people write is to persuade. Persuasive writing presents supportive arguments for a specific point of view. These favorable defenses must be, if not Socratically logical, at least thoughtful and reasonable. Importantly, this type of writing should acknowledge the positive values in other opinions. Showing this courtesy to alternative viewpoints adds confident strength to any argument. Persuasive writing should concentrate on ideas and actions, addressing personalities only when essential to the argument (villagehiker.com).

The researcher was prompted to conduct this study on the persuasive letters of Chinese students using Rhetorical Analysis to examine the degree of Rhetoric employed in their write-ups. Through this, the researcher

would be able to, in one way or the other, give recommendations on the improvement of the writing skills of the Chinese students of St. Paul University Philippines on the aspect of Persuasion and Rhetoric.

#### **Objectives of the Study**

This study aimed to examine the persuasive letters of Chinese students using Rhetorical Analysis.

Specifically, it sought to answer the following questions:

- 1. What is the rhetorical situation?
- 2. Who are the authors or speakers?
- 3. What are their intentions in writing?
- 4. Who makes up the audience?
- 5. What are the types of content used in the letters?
- 6. What rhetorical devices were employed?
- 7. How do form and content correspond?
- 8. What does the nature of the communication reveal about the culture of the writers?

#### **METHODOLOGY**

#### **Research Design**

This study employed a descriptive-qualitative method since the researcher aimed to analyze the persuasive letters of Chinese students. This method is defined by Calderon and Sanchez as cited by Bonilla (2006) as a "process of gathering, analyzing, classifying and tabulating about prevailing conditions, trends, processes, and then making adequate and accurate interpretations about such data..." bearing this in mind,

a descriptive method is deemed appropriate for the study because the researcher will treat the data taken in the same processes presented in the definition.

Qualitative research seeks out the 'why,' not the 'how' of its topic through the analysis of unstructured information – things like interview transcripts, emails, notes, feedback forms, photos, and videos. It doesn't just rely on statistics or numbers, which are the domain of quantitative researchers.

Qualitative research is used to gain insight into people's attitudes, behaviors, value systems, concerns, motivations, aspirations, culture or lifestyles. It's used to inform business decisions, policy formation, communication, and research.

#### **Corpus of the Study**

The corpus of the study is the persuasive letters of Chinese students during their Final Examination in ENG102-Writing in the Discipline in the Academic Year 2010-2011. It focuses on examining the write-ups using the questions provided in the Rhetorical Analysis Tool. The researcher identified the rhetorical situation and described the authors and their intentions in writing. Furthermore, he also presented the types of content used in the essays, how the form and the content corresponded, and identified the different rhetorical devices employed in the write-ups. Meanwhile, the researcher also presented the nature of communication revealed about the culture of the writers.

#### **Procedures**

The following steps were undertaken in gathering the data to answer the specific objectives of the study. The researcher read the persuasive letters of the Chinese students to be able to find answers to the questions included in the Rhetorical Analysis. The researcher began with the presentation, analysis, and interpretation of the study with the description of the Rhetorical Situation. The researcher also described the authors and their intentions in writing. He presented the types of content used in the essays, how the form and the content corresponded, and identified the

different rhetorical devices employed in the write-ups through a table. The researcher also presented the nature of communication revealed about the culture of the writers.

#### **Data Analysis**

Textual Analysis was the method utilized in this study since the data analyzed were taken from the persuasive letters written by Chinese students. Textual Analysis is a methodology in the social sciences for studying the content of communication. Babbie (2005) defines it as "the study of recorded human communications, such as books, websites, paintings and laws." It is most commonly used by researchers in the social sciences to analyze recorded transcripts or interviews with participants.

#### RESULTS AND DISCUSSION

In the process of examining the persuasive letters, the researcher picked out significant details and answers to the questions included in the Rhetorical Analysis Tool. The aforementioned details and answers were then interpreted to come up with the conclusions regarding the persuasive letters.

#### 1. What is the rhetorical situation?

St. Paul University Philippines is one of the leader schools in Nursing Education. With the very significant passing rate in the National Licensure Examination for Nurses, many students were encouraged to take up nursing in the said university. With its aim to deliver quality nursing education to Filipino students and citizens of the neighboring countries, it expanded its nursing program to foreign students. Through this innovation, many Chinese students have enrolled and have graduated Bachelor of Science in Nursing from SPUP.

The persuasion letters that were used as the corpus of this study were the outputs of some Chinese students in their Final Examination for Technical Writing and Writing in the Discipline. The Chinese students were asked to answer task number 2 in their questionnaire which goes, "Write a three paragraph persuasive letter addressed to the would-be-BS

Nursing students suggesting why it is good to take the course and the possible employment that one can get. Convince them of the importance of the course by giving your personal examples and experiences."

#### 2. Who are the authors or speakers?

The persuasive letters were made by the Fifth Year Chinese students of Bachelor of Science in Nursing of St. Paul University Philippines for the Academic Year 2010-2011. The researcher perceives that the authors were able to establish personal credibility as they state the following reasons why the would-be-BS Nursing students must take BS Nursing, and take it in SPUP in their persuasive letters. Lines were taken from the persuasive letters verbatim, and the researcher's interpretations follow them.

"I am proud to introduce my course and my school to you, and I hope you can come to study Nursing course here."

This line from one of the letters proved how satisfied and gratified the author is when she used the word "proud." This may manifest that since she is trying to convince other students to take BS Nursing in SPUP, they may also feel and experience the same satisfaction when they enroll to SPUP.

"You can study Nursing knowledge at the same time English."

This line gives an impression that once a student enrols BS-Nursing in St. Paul University Philippines, he/she gets not just inputs on nursing concepts but also learns the English Language at the same time. The researcher sees this to be emphasized because they are Chinese students and it is indeed one of the reasons why they choose to study in the Philippines to learn the English Language. It is also important to note that Chinese consider English as a Foreign Language.

"Our teachers are RNs and MSNs so that you can trust their professional knowledge and English level."

Including in the persuasive letter that the faculty is made up of

Registered Nurses and graduates of Master of Science in Nursing indeed shows credibility and allows the author to prove that SPUP provides quality Nursing Education.

"Take me as an example. . . . . After three years study, I already improved a lot and got the TOELF score of 86."

This is indeed a very courageous statement from one of the persuasive letters. Using one's self as an example is a great manifestation that one can prove his or her claim; in this case, that BS Nursing program in SPUP is good and helpful. The researcher strongly believes that the authors were able to establish ethos or personal credibility, reputation, and fairness based on the nature of the task given to them. The task includes, "Convince them of the importance of the course by giving your personal examples and experiences." The authors did not just give personal examples and experiences, but they also included some factual information to prove their respective claims like the qualifications of the faculty members, their progress in standardized examinations, and their improvements in speaking the English language. And since they experienced how the Nursing program has been delivered in SPUP, they are indeed credible to promote or market and to persuade people to take the course in the same university.

#### 3. What are their intentions in writing?

One of the reasons why people write is to persuade. Persuasive writing presents supportive arguments for a specific point of view. Based on the nature of the task given to the authors, it was clearly stated that their intention is to persuade. The lines presented below to prove that the writers intend to persuade their readers:

Our teachers are RNs and MSNs so that you can trust their professional knowledge and English level.

"Take me as an example. . . . . After three years study, I already improved a lot and got the TOELF score of 86."

It is known to all that St. Paul University is a good school and the nursing course the best.

The teachers and classmates are all very friendly and warm-hearted. They are willing to reach out their helping hand whenever you need.

"I will tell you what you will get from the nursing course. If you take a nursing course, you will enter an amazing world; you will know about body structures, body systems, and different diseases."

These lines from the persuasive letters indeed manifest persuasion to the readers. They contain positive information about the idea the authors believe in and at the same time, they provide the different benefits that one gets when he or she enrolls BS- Nursing in SPUP.

#### 4. Who makes up the audience?

"Write a three paragraph persuasive letter addressed to the wouldbe-BS Nursing students suggesting why it is good to take the course and the possible employment that one can get. Convince them of the importance of the course by giving your personal examples and experiences."

In the context of the task given to the students, the intended audience was explicitly manifested, the would-be-BS Nursing students. But based on the persuasive letters of the authors, it can be noticed that their persuasion is addressed to the Chinese students like them. This can be claimed based on this sentence: "When we first came here, we know nothing, they taught us English, guide us the way to a classroom and so on."

The secondary audiences can be the would-be-BS Nursing students in general. They may come from different races. If students from different nations and also from the Philippines would be able to read the persuasive letters of these Chinese students they might also be convinced to take the course in SPUP.

#### 5. What are the types of content used in the essays?

The persuasive letters of the Chinese students have a single main idea for the reason that they were asked to answer a single task. They all struggled to the conviction that BS Nursing is a good course to take. The authors appealed both to reason and emotion as they presented factual information about the BSN program in SPUP and at the same time their experiences as foreign students. Furthermore, some of the authors also included their personal views on the program and how it can benefit them and other students. Below are sentences that lead to the main idea that Nursing is a good course to take in SPUP.

Our teachers are RNs and MSNs so that you can trust their professional knowledge and English level.

Take me as an example. . . . . After three years study, I already improved a lot and got the TOELF score of 86.

It is known to all that St. Paul University is a good school and the nursing course the best.

The teachers and classmates are all very friendly and warm-hearted. They are willing to reach out their helping hand whenever you need.

I will tell you what will you get from the nursing course. If you take a nursing course, you will enter an amazing world; you will know about body structures, body systems, and different diseases.

#### 6. What rhetorical devices were employed?

Table 1. Frequency and Percentage Distribution of the Rhetorical Devices used in the Persuasive Letters of Chinese Students

Rhetorical Devices Used	F	P (%)
Allusion	1	7.692
Apostrophe	1	7.692
Enumeratio	1	7.692
Epithet	5	38.462

Hyperbole	1	7.692
Litotes	1	7.692
Metonymy	2	15.386
Synecdoche	1	7.692
Total	13	100

Table 1 shows the different Rhetorical Devices found in the persuasive letters of the Chinese students. The most dominant among the rhetorical devices used is Epithet which consists 38.462% of the total number. It is the use of an adjective or adjective phrase to describe. It is followed by Metonymy which consists 15.386% of the total number of the Rhetorical devices used. It is a kind of metaphor where something being compared is referred to by something closely associated with it. On the one hand, Allusion, Apostrophe, Enumeration, Hyperbole, Litotes, and Synecdoche consist 7.692% of the rhetorical devices used. Please refer to the Definition of Terms in Chapter I for the definition of these Rhetorical Devices.

Below are the examples of lines or sentences that contain Rhetorical Devices:

I heard that you chose Nursing as a major in our university. (Apostrophe)

If you take a nursing course, you will enter an amazing world. (Epithet)

I thought I already have one step inside my dream. (Metonymy)

Don't wait anymore, join us! (Litotes)

Our teachers are RNs and MSNs, so you trust their professional and English level. (Enumeratio)

The graduate certificate from St. Paul University is a gold ticket for best hospitals all around the world. (Metonymy)

You can feel the care of the school. (Synecdoche)

My dream is helping poor people who suffer pain and diseases. (Epithet)

I earnestly tell you, you have made a very good decision for yourself. (Epithet)

Furthermore, A nurse is an honourable job. (Epithet)

The teachers and classmates are very friendly and warm-hearted. (Epithet)

It is known to all that St. Paul University is a good school and the nursing course the best. (Hyperbole)

I improved a lot and got the TOELF score of 86. (Allusion)

Note: The examples were copied verbatim from the persuasive letters of the authors.

#### 7. How do form and content correspond?

The form utilized by the authors is a 'letter.' Through this, the authors were able to direct their message to their intended audience which is the would-be-BS Nursing students. Based on the observations of the researcher, the form complements the content of the persuasive write-up, and it is relevant to the context of the task. The authors were able to freely express their personal experiences and examples in a very direct and intimate manner. The researcher then can claim that the form aided the author's intention to convince the would-be-BS Nursing to take the Nursing Program in SPUP for it gave them a chance and to express what is their minds.

8. What does the nature of the communication reveal about the culture of the writers?

Based on the persuasive letters of the Chinese students, the

following are the values and the customs that have been revealed. These have been proven through the lines or sentences that the researcher clipped from the letters.

Chinese are grateful for what other people show or do for them, and appreciative of the simple things around them.

The teachers and classmates are all very friendly and warm-hearted. They are willing to reach out their helping hand whenever you need.

I am proud to introduce my course and my school to you.

It is known to all that St. Paul University is a good school and the nursing course the best.

Chinese people are concerned for the welfare of other people, and they are very family oriented.

We can take care of the sick people, help them release pain and sorrow. And we can take care or our parents, too.

Then you may use your knowledge and skills to help others, not just your families, but also poor people who have weak in health protection.

My dream is helping poor people who suffer pain and diseases.

If you take nursing, it is good for you and your family.

As our relatives and family, they are very close to us, it means, we have more times to meet them, teach them and care them to be good.

#### CONCLUSION

This study aimed to examine the persuasive letters of Chinese students using the Rhetorical Analysis Tool. The persuasion letters that were used as the corpus of this study were the outputs of some Chinese students in their Final Examination for Technical Writing and Writing in the Discipline. The Chinese students were asked to answer task number 2 in their questionnaire.

The authors were able to establish ethos or personal credibility, reputation, and fairness based on the nature of the given task and because the authors did not just give personal examples and experiences, but they also included some factual information to prove their respective claims. And since they experienced how the Nursing program has been delivered in SPUP, they are indeed credible to promote or market and to persuade people to take the course.

Furthermore, based on the nature of the task given to the authors, it was clearly stated that their intention is to persuade the would-be-BS Nursing students to take the program in SPUP. The persuasive letters all struggle to the conviction that BS Nursing is a good course to take as the authors appealed both to reason and emotion of their audience when they presented factual information about the BSN program in SPUP and at the same time their experiences as foreign students. Furthermore, some of the authors also included their personal views on the program and how it can benefit them and other students.

The following are the different Rhetorical Devices used in the persuasive essays; Allusion, Apostrophe, Enumeratio, Epithet, Hyperbole, Litotes, Metonymy, and Synecdoche. Meanwhile, it was found out that the form complements the content of the persuasive write-up and it is relevant to the context of the task. The authors were able to freely express their personal experiences and examples in a very direct and intimate manner. The researcher then can claim that the form aided the authors' intention to convince the would-be-BS Nursing to take the Nursing Program in SPUP for it gave them a chance and to express what their minds are.

#### RECOMMENDATIONS

Based on the findings and conclusion of the study, the following recommendations are offered:

The St. Paul University Philippines administration is highly commended for its Bachelor of Science in Nursing Program, specifically the one offered for the Chinese Students. The students' impressions and invitations for the would-be-Nursing students are great manifestations of its success. The continuation of the program is then highly recommended. Meanwhile, based on the write-ups of the students, the researcher observed some points

for improvement particularly in grammar area. It is then recommended that an intensification of the English Program of the Chinese Students be made although this is not of a major priority since English is considered as their Foreign Language. Also, for the maximum utilization of this study, it is recommended that future researchers turn this study better by using a larger number of corpuses to be examined. It is also recommended that future researchers make a comparison between the outputs of the Chinese students and the Filipino students to see who can utilize more rhetorical devices in their write-ups.

#### References

- Adolfo Jr., A. (2012, February 17). Retrieved June 25, 2014, from https://guides.wikinut.com/Important-macro-%20skills-in-teaching-a-particular-language/1ivwnam3/.
- Babbie, E. (2005). *Textual Analysis*. Retrieved June 29, 2014, from the http://en. wikipedia.org/wiki/Content\_analysis.
- Brittman, F. (2007). The Most Common Habits from more than 200 English Papers.

  Retrieved June 26, 2014, from http://net.pku.edu.cn/~cuibin/resources/chinese-english-problem.pdf.
- Hyland, K. (2004). *Genre and Second Language Writing*. London: The University of Michigan Press.
- Jia, Y. (2004). *Indirectness: The General Preference Of the Chinese in their English Writing*. Hartin Institute of Technology.
- Kerstetter, B. (2008). What is Writing: Reasons to Write. Retrieved June 25, 2014, from http://villagehiker.com/research-writing/what-is-writing-a-definition. html.
- Lapid, M., & Serrano, J. (2011). English Communication Arts and Skills through World Literature. Quezon City: Phoenix Publishing House, Inc.
- San Miguel, J. et.al. (2010). Smart Writing: An Essential Guide to College Composition. Quezon City. C & G Publishing, Inc.
- Troia, G. (2014). Research in Writing Instruction: What We Know and What We Need to Know: Retrieved June 26, 2014, from the World Wide, a PDF file.
- Yule, G. (2006). *The study of language*. United Kingdom: Cambridge University Press Electronic Media

## LEVEL OF SATISFACTION OF FOURTH YEAR HOTEL, RESTAURANT AND TOURISM MANAGEMENT STUDENTS OF ST. PAUL UNIVERSITY PHILIPPINES REGARDING THEIR EDUCATIONAL TOUR

#### **CHARRY GRETCHEN V. AVILA, MBA**

#### **ABSTRACT**

This research utilized the descriptive survey method to ascertain the level of satisfaction of hotel, restaurant and tourism management students on their educational tour. The participants of this study were the fourth year Hotel, Restaurant and Tourism Management students of St. Paul University Philippines who joined the Educational Tour when they were in second year. A structured questionnaire was utilized as the main instrument to gather data needed for the study. Frequency count and percentage, mean and ANOVA were employed as data analysis. Based on the results of the study, it was revealed that the participants have gained new knowledge and meaningful experiences from their Educational Tour. Moreover, the participants were exposed to new and different cultures that can help them to become more sociable and interactive individual. For these reasons, the participants can now compare experiential learning from the usual classroom-based teaching technique. The most preferred recommendations or suggestions to improve or maintain the Educational Tour of the Fourth Year Hotel, Restaurant and Tourism Students of St. Paul University Philippines is "The tour should be one week to have more time in the destinations", "All foods must be included in the package," and "The itinerary should be followed strictly."

**Keywords:** Educational trip, HRTM, satisfaction

#### INTRODUCTION

Learning is a continuous process. Every hour or every moment spent either in the classroom or out there in the field is a learning experience. We also learn from all walks of life: students, travellers, bus drivers, hotel receptionists, janitors, street vendors, etc. When students and teachers are together outside the classroom, new educational environments and experiences are possible. Students may have the opportunities to observe many things that are not available in school. Discussing an educational trip beforehand is wise because it allows students to know what they will experience during their get away from school.

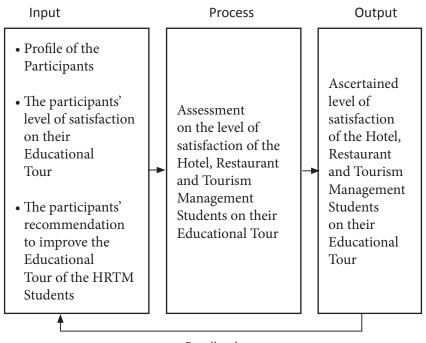
Getting away from the everyday atmosphere in the classroom gives students an opportunity to spend time with each other in a new environment. They may be able to connect more of a personal level without structure of the normal school day. Students may be able to spend much of the educational trip day in small groups, observing, chatting to learning about each other. Having an educational trip in the early part of the term is wise, since it allows students to bond with classmates they may not know very well. Educational trips provide valuable educational opportunities away from the classroom, without using textbooks and other tools used in a normal school setting. The students on a tour can often learn while having fun in a more informal environment. Bachelor of Science in Hotel, Restaurant and Tourism Management students are engaging and involving themselves to the development and trends of the 21st Century. As the students become more curious and interested to the destinations in the country and even in the world, the teachers and the school is making an innovation to expose the HRTM students to experience what they have learned inside the classroom.

Exposures in different destinations are of big help to the HRTM Students in exploring and learning by their our own to improve their skills through experiences. It is more effective to see, feel and enjoy every destination rather than seeing it only in pictures and videos or what we call Virtual Tourism. Saint Paul University Philippines really makes a difference in terms of exposures which it provides to its students. It is for these reasons that the researcher is encouraged conducting the study entitled "The Level of Satisfaction of the Fourth Year Hotel, Restaurant

and Tourism Management Students of St. Paul University Philippines on their Asian Tour."

#### **Conceptual Framework**

The paradigm shows how the researcher is guided in conducting the study. It made use of the I-P-O model to ascertain the level of satisfaction of the hotel, restaurant and tourism management students on their educational tour.



Feedback
Figure 1. Paradigm of the Study

The input includes the profile of the participants in terms of section, batch, gender; the participants' level of satisfaction on their educational tour; and the participants' recommendation to improve the tour of the Hotel, Restaurant and Tourism students in St. Paul University Philippines.

The process phase includes assessment on the level of satisfaction

of the Hotel, Restaurant and Tourism students on their Educational Tour.

The output includes ascertained level of satisfaction of the Hotel, Restaurant and Tourism Management students on their Educational Tour.

#### Statement of the Problem

This study aimed to determine the Level of Satisfaction of the Hotel, Restaurant and Tourism Management students on their Educational tours.

Specifically, it sought to answer the following questions:

- 1. What is the profile of participants according to gender and batch?
- 2. What is the participants' level of satisfaction on their educational tour?
- 3. Is there a significant difference on the participants' level of satisfaction on their Educational Tour when grouped according to profile variables?
- 4. What are the suggestions or recommendations to improve or maintain the Educational Tour of the HRTM students?

#### **METHODOLOGY**

#### **Research Design**

This research utilized the descriptive survey method to ascertain the level of satisfaction of hotel, restaurant and tourism management students on their educational tour.

#### **Research Participants**

The participants of this study were the fourth year Hotel, Restaurant and Tourism Management students (SY 2015-2016) from St. Paul University Philippines who joined the Educational Tour when they were in second year (SY 2013-2014).

#### Instrumentation

The principal data gathering instrument used in this study is the questionnaire. A structured questionnaire was utilized as the main instrument to gather data needed for the study. The questionnaire consist of three parts, namely: Part I gathers information on the profile of the participants, Part II deals with the participants' level of satisfaction on their Educational Tour while Part III deals with participants' suggestions and recommendations to improve the Educational Tour of the students.

#### **Data Gathering Procedure**

The researcher collected the data through the following procedures:

- 1. The researcher made a letter of permission which was checked and signed by the Dean of the School of Accountancy and Business.
- 2. The data gathered and obtained through the questionnaire were tabulated, analyzed and interpreted.
- 3. The researcher drew the summary of findings, conclusion and recommendations that were necessary for the improvement of the Educational Tour of HRTM Students of St. Paul University Philippines.

#### **Data Analysis**

The data obtained through the questionnaires were interpreted and analyzed using the statistical tools described below:

Frequency count and percentage distribution was used to determine the participants' profile.

Mean was used to determine the participants' level of satisfaction on their educational Tour. To understand better the value of weighted mean, the following arbitrary scale was used as a basis.

Scale	Range	Descriptive Interpretation
5	4.20-5.00	Very much Satisfied
4	3.40-4.19	Very Satisfied
3	2.60-3.39	Moderately Satisfied
2	1.80-2.59	Slightly Satisfied
1	1.00-1.79	Not Satisfied at All

Analysis of Variance or (ANOVA) was used to determine the significant difference on the participants' level of satisfaction on their Educational Tour when grouped according to profile variables.

#### RESULTS AND DISCUSSION

#### **Profile of the Participants**

On gender, majority or 80% of the participants are female and 20% are male. With respect to their batch, majority or 52.5% of the participants are from the 1st batch, and 47.5% are from 2nd batch.

### Participants' level of satisfaction on transportation, accommodation, foods, destination and activities on their Asian tour

In terms of transportation, the result showed that the participants were "very satisfied" with a categorical mean of 3.43. This means that the bus company offers them an excellent customer service.

With respect to accommodation, result unveiled that the participants were "very satisfied" with a categorical mean of 3.57. This means that the hotel is conducive and comfortable to stay with. Moreover, it offers good customer service.

Result revealed that the participants were "moderately satisfied" on the foods they served with a categorical mean of 3.16. This implies that the participants are not well satisfied in the served foods.

On destination and activities, the participants were "very satisfied"

with an overall mean of 3.92. This implies that they have really enjoyed the scenic places and activities given to them.

Significant difference on the participants' level of satisfaction on the proposed study on an assessment of the Educational Tour as perceived by 4th year students of St. Paul University Philippines when grouped according to profile variables

There is no significant difference of the participants' level of satisfaction on their Educational Tour in terms of transportation, accommodation, food, destination and activities when grouped according to gender.

There is no significant difference of the participants' level of satisfaction on their Educational Tour in terms of transportation, food, destination and activities when grouped according to batch. However, there is a significant difference of the participants' level of satisfaction on their Educational Tour in terms of accommodation when grouped according to batch.

#### Participants' suggestions and recommendations

The most preferred recommendations or suggestions to improve or maintain the Educational Tour of the Fourth Year Hotel, Restaurant and Tourism Students of St. Paul University Philippines is "The tour should be one week to have more time in the destinations", "All foods must be included in the package," and "The itinerary should be followed strictly."

#### CONCLUSION

Based on the findings, the following conclusions were drawn:

The participants have gained new knowledge and meaningful experiences from their Educational Tour. The participants were exposed to new and different cultures that can help them to become more sociable and interactive individuals. The participants can now compare experiential learning from the usual classroom-based teaching technique.

#### RECOMMENDATIONS

Based on the findings and conclusion of the study, the following recommendations are derived:

The itineraries to be used in future tours may be well-planned and strictly followed.

The students can suggest their choice of country/place that they want to visit considering the advantages that they will get.

The teachers of Philippine & World Tourism subjects may continue to expose the Hotel, Restaurant and Tourism Management Students in other destinations.

St. Paul University Philippines continues to support this kind of tour for it helps the HRTM Students to become more competitive individuals in the future.

#### References

Bautista, R. A. Jr. (2009). Principles of Tourism 1.

- Douglass, D. *The Out-of-Classroom Experience*. Retrieved December 10, 2012 from http://www.4faculty.org/includes/digdeeper/Outside/outside.htm.
- Fost, S. (2009, September 21) *Benefits of Educational Fieldtrip*. Retrieved December 10, 2012 from http://www.ehow.com/facts\_5518764\_benefits-educational-field-trips.html.
- Kubitschek, E. (2009, March 25). What Are the Benefits of International Travel? Retrieved December 10, 2012 from http://www.ehow.com/facts\_4866593\_what-benefits-International-travel.html #ixzz2mrbC3hkV.

- *Objectives of Fieldtrips.* Retrieved December 10, 2012 from http://www.ehow.com/info 8306936 objectives-field-trips.html#ixzz2mrVYJ0xc.
- Sullivan, C. R. (2010, May 18). *The Advantages of Tourism*. Retrieved December 10, 2012 from http://ezinearticles.com/?The-Advantages-of-Tourism&id=4282804.
- Tourism in Asia. Retrieved December 10, 2012 from http://www.gov.hk/en/about/abouthk/factsheets/docs/tourism.pdf.

#### E-PORTFOLIO FOR TERTIARY LEVEL FACULTY MEMBERS OF ST. PAUL UNIVERSITY PHILIPPINES

#### **RUCELJ D. PUGEDA, MIT**

#### **ABSTRACT**

Using the descriptive research method, it aimed to develop an E-Portfolio for the 145 tertiary level faculty members including the Director of Human Resource of St. Paul University Philippines. The study also made use of systems development to complete the proposed system including the succeeding steps to carry-out after its initial implementation. The data were gathered through the use of survey questionnaire and interview to obtain the assessment of the participants regarding the existing portfolio management and the proposed e-portfolio. With the use of frequency and percentage and weighted mean, the study ascertained that the assessment of the participants in the transactions and processes of the current system is considered "poor," while that of the Proposed E-Portfolio is assessed "very satisfactory." The findings implied that the proposed system could make the transactions and processes more convenient and easier regarding monitoring and update of employees' Portfolios. The result of the assessment of the efficiency of the proposed system also revealed that the system is "Highly Effective." Findings revealed that the participants consider the e-Portfolio to be at high degree of effectiveness in the functionality, reliability, usability, maintainability and portability. Therefore, the proposed e-Portfolio, compared with the current system, is more efficient, more functional and more reliable because it can better manage and facilitate the Portfolios of the employees of St. Paul University Philippines.

**Keywords:** e-Portfolio, faculty portfolio, employee portfolio

#### INTRODUCTION

The computer has been a tool to make work more efficient and effective than ever before. It has served a great task in the daily lives of many institutions. Experts in the field of technology have developed many programs to contribute to the society to perform tasks easier and faster. Furthermore, the manual processes that are transformed into computerized systems have proven that technology is a very useful gadget in the lives of many people. It has contributed to the innovation of how things should be done to save time as well as energy and to become more productive in doing things. With the emergence of technology, creative innovation has been introduced to meet the demands of the changing society. To address such change, St. Paul University Philippines, Tuguegarao City, Cagayan has thought of transforming manual processes to computerized systems such as professional portfolio preparation. The portfolio is an organized presentation of an individual's education, creative work samples, competencies, achievements, and skills. As one of the needed requirements of the institution, every employee needs to prepare a portfolio as a basis for his/her professional development and is also used as a tool for the system to rate the employees based on their performance in their careers. Since there has been a race of innovating how the task is to be done, the researcher considered the thought of having e-portfolios to have more efficient file management of documents, thus producing quality output by the employees of the institution. In the manual process of preparing the portfolios of employees of St. Paul University Philippines, the Faculty members have to create their portfolios by gathering desired documents to be submitted to the Director of Human Resource (HR) Office. These have to be used as an essential for evaluation regarding ranking and promotions. Currently, there are rubrics used as bases for assessment and determination of ranks and are used as tools for the HR Director to determine whether there are employees that need to undergo further training. However, it takes a lot of time and effort to go over and review these documents. Besides, these portfolios are not consistently updated by the employees after having attended seminars/ training, conventions, and other related activities. Thus, considering the manual system to the big race of innovation, computerization can minimize traffic regarding quality output and provide outright results of assessments of employees. Also, it can also reduce human errors in the evaluation process and determination of ranks. Automation is the key to having accurate, fast, secure, efficient and effective desired outputs of the institution.

#### **Conceptual Framework**

This study was conceptualized to automate the conventional procedure of completing employee Portfolio in the University.

Furthermore, the development of the Proposed E-Portfolio would be of great advantage, benefit and comfort to the personnel that is involved in updating their portfolios. The proposed E-Portfolio followed the SCRUM process in software development.



Figure 1. The SCRUM Model

#### Statement of the Problem

This study aimed to develop an E-Portfolio for the tertiary level

faculty members of St. Paul University Philippines.

Specifically, it sought to answer the following questions:

- 1. What is the assessment of the participants on the current system regarding the following transactions and processes in Portfolio Management?
  - 1.1 submission of employees' portfolio;
  - 1.2 collecting and filing of the portfolio; and
  - 1.3 updating of existing portfolio?
- 2. What intervention can be done to enhance the current system?
- 3. What is the degree of effectiveness of the proposed E-portfolio regarding the following software characteristics/ capabilities:
  - 3.1 Functionality;
  - 3.2 Reliability;
  - 3.3 Usability;
  - 3.4 Maintainability; and
  - 3.5 Portability?

#### **METHODOLOGY**

#### **Research Design**

The study made use of the descriptive method of research. The data were gathered through the use of survey questionnaire to describe the assessment of the participants regarding the existing portfolio management and the proposed e-portfolio. The study also made use of systems development to complete the proposed system including the succeeding steps to carry-out after its initial implementation.

#### **Participants of the Study**

The participants of the study consisted of 145 college faculty members including the Director of Human Resource of St. Paul University Philippines. Simple random sampling through Slovin's Formula was used to allocate the participants per unit proportionally and to determine the said sample size of the participants.

### **Data Gathering Instruments**

The researcher floated two sets of questionnaires, a pre-survey and post-survey questionnaire. A pre-survey questionnaire was used to assess the faculty participants' responses on transactions and processes in the manual system while a post-survey questionnaire was used to determine the degree of effectiveness of the proposed system regarding software characteristics/capabilities. Interviews were conducted to the Director for Human Resource and Faculty Members regarding the manual process of creating more undertaken results to obtain significant information about professional portfolios. The researcher further examined existing employee portfolios to receive substantial information about employee portfolio.

### **Data Gathering Procedure**

The researcher requested permission from the Director of Human Resource of St. Paul University Philippines to conduct the study and to float the questionnaire to the participants. After the permission was granted, the researcher personally distributed the questionnaires to the participants involved in the study. The researcher also conducted an informal interview to the participants of the study.

# **Data Analysis**

The following statistical tools were employed in the evaluation of the system:

Frequency and Percentage Count was used to obtain the participants' readiness and willingness to use the proposed E-portfolio.

Weighted Mean was used to determine the differences in the ratings of the participants based on the data gathered. An excellent scale was used to interpret the means.

Narrative Analysis was used to organize interview results and analysis of documents.

#### **RESULTS AND DISCUSSION**

# Summary of the Assessment of the Faculty-Participants' Responses on Transactions and Processes of the Current System

Results revealed that operations and processes of the current system in the submission of Employees' portfolio are "Poor" with an overall mean of 1.88. Regarding Collecting and Filing of Portfolio, result shows that the assessment is "inadequate" regarding transactions and processes with a weighted mean of 2.20. Moreover, operations and processes in updating existing portfolio with the completeness of evidence were assessed as "Needs Improvement." The researcher observed, analyzed and was familiarized with the different processes involved in the problems as well as the various processes involved in the preparation of portfolios to ensure the accuracy in the flow of the system.

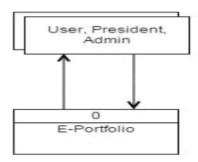
# Proposed e-Portfolio

E-Portfolio is an online portal for St. Paul University Philippines employees. It is focused on the digital e-portfolio of St. Paul University Philippines, specifically in the office of the Director of Human Resource. It is conducted to develop an easy, efficient and time-saving system. The system administrator is the Director of Human Resource, which has the task to monitor the ranks of the employees of the University using the system based on the portfolio submitted and filled-up online. The Vice President for Academics and the University President also have access to the network. The administrator and the users can print reports. Generating reports through the computer will be easier than from a manual operation. Reports that the proposed system will develop are only focused on the Electronic portfolio. One of the functions of the system is the search engine which will help the Director of Human Resource, the Vice President for Academics and the University President to quickly search/view a particular employee of the University.

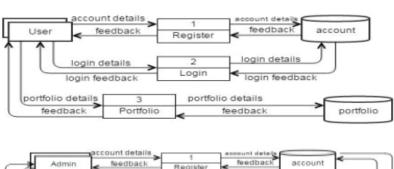
The following figures present the models used in the development of the e-Portfolio.

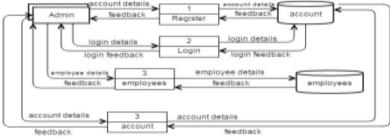
# Administrator's View Login Personal Employees Accounts Logout Information User's View Login Personal Portfolio Logout Information President's View Login Personal Employees Logout Information Dean's View Login Personal Employees Logout Information

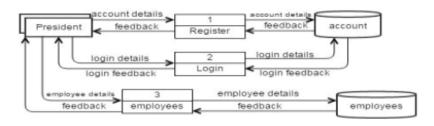
# Data Flow Diagram



#### Level 1







#### **Entity-Relationship Diagram** Evidence Account\_id Username title Academics Password content Account type Portfolio Acad id type Degree Attempts Course hilosophy of te Emp Yr\_graou. Emp\_id Emp\_id graduated curriculum vitae Emp\_id Professional co tbl research Employee esearch\_title prof\_description Emp\_id description awards\_recognition prof date Emp\_Iname Emp\_fname r conducted yr\_published Emp\_id awards\_desc Emp\_id awards\_date\_achiev rank\_desc ed rank\_points Emp. Community parish position teaching\_compete unit community\_parish community\_parish contact no subject\_code mile email\_address Emp\_id Subject\_desc Emp\_id creative\_work status \_description date\_created

# Summary of the Assessment of the Faculty-Participants' Responses on Transactions and Processes of the Proposed E-Portfolio

Results revealed that operations and processes of the proposed system in the submission of Employees' portfolio is "Very Satisfactory" with a weighted mean of 3.52. Regarding Collecting and Filing of Portfolio, result shows that the assessment is "excellent" regarding transactions and processes with a weighted mean of 4.21. Moreover, operations and processes in updating existing portfolio of the proposed system are "Very Satisfactory." The findings implied that the proposed system could make the transactions and processes more convenient and easier regarding monitoring and update employees' Portfolios.

# Summary of the Assessment of the Faculty-Participants' Responses relating to the Degree of Effectiveness of the Proposed E-Portfolio

Results showed that he participants assessed the proposed system with "High degree of effectiveness" with an overall weighted mean of 3.68. Finding reveals that the participants appreciated the effectiveness and usefulness of the proposed system.

#### CONCLUSION

From the above findings, the researcher concludes that the proposed e-Portfolio compared with the current system is more efficient, more functional and more reliable because it can better manage and facilitate the Portfolios of the employees of St. Paul University Philippines.

#### RECOMMENDATIONS

Based on the findings and conclusion of the study, the following recommendations are drawn:

The researcher may present the proposed E-portfolio to the administrators of the St. Paul University Philippines for approval, implementation, and utilization of the system.

Training may be conducted to all the users on the use of the proposed e-portfolio.

The integration of the Rank Monitoring System for accurate retrieval of data for ranking and promotions purposes.

A dedicated server may be provided to ensure the utilization of the proposed system.

The Vice President for Academics, Deans and Associate Deans may have separate accounts for evaluation of their Faculty.

# References

- Connor, S. (2015, August 11) *Important changes coming to our Eportfolio system.* Retrieved from https://www.saylor.org/tag/eportfolio/.
- Donston-Miller, D. (2013) . *7 Ways To Create Eportfolios* http://www.http://www.informationweek.com/software/7-ways-to-create-e-portfolios/d/d-id/1110673.

- *e-Portfolios with Google Apps.* Retrieved from https://sites.google.com/site/eportfolioapps/overview.
- *e-Portfolio Basics: What is an e-portfolio?* Retrieved from http://academic.regis.edu/LAAP/eportfolio/basics\_what.htm.
- Jenkins, E. (2015). *Software Development Methodologies* http://agilerules.blogspot.com/2014/07/softwaredevelopment-methodologies.html.
- Kleiman, L. S. *Employee evaluation and performance appraisals*. Retrieved from http://www.referenceforbusiness.commanagement/Em-Exp/Employee-Evaluation-and-Performance-Appraisals.html.
- Padilla, R. C. (2013). Library System of the Cagayan State University Piat Campus, Piat Cagayan.
- Paguigan, L. A. (2013). Computer-Aided Entrance Examination of the Regional Science High School, Tumauini, Isabela.
- Shuttleworth, M. (2008, March 17). Research Hypothesis. Retrieved Jan 12, 2015, from Explorable.com:https://explorable.com/research-hypothesis
- Zimmerman, E. (2012, June 30). "Career Couch: Showcasing Your Work, in an Online Portfolio." New York Times.http://en.wikipedia.org/wiki/Electronic\_portfolio.

# EXPLORING OCCUPATIONAL INTERESTS OF ENTERING SENIOR HIGH SCHOOL STUDENTS AND THEIR PREFERRED ACADEMIC TRACKS IN K-12 PERSPECTIVE

# VOLTAIR T. SORIANO, RGC EMOLYN M. IRINGAN, Ph.D.

#### **ABSTRACT**

This study aimed to determine the Occupational Interest and their Preferred Academic Tracts of Grade 10 students. The study considered 103 Grade 10 students of St. Paul University Philippines for the Academic Year 2015-2016. The data gathering tools include the Level 2 Career Interest Inventory and the Senior High Survey Questionnaire on Students' Preferred Academic Tracks. Results reveal that the top 5 career interests of students are in areas of Mathematics and Science, Health Services, Educational Services, Sales and Management. Among the top 5 specific career areas that the students like are on Mathematics or Sciences, Health Care, Computer Technology, Marketing or Sales and Electronics or Electric Traders. The Science, Technology, Engineering and Mathematics track (STEM) was the most preferred academic track which comprise 50.5% of them, followed by the ABM track. Data confirmed that 68.9% exhibited match on their career interests and degree of likeness to the course, 72.8% of the students have career interests that match their preferred academic tracks, and degree of likeness to specific career of about 68% of the students match with their preferred academic track. The data further reveal that about 30% of the students indicate that still a significant percentage of students would like to take courses where they are not interested in and they least prefer. A career guidance program for senior high school students was developed to address this concern.

**Keywords:** Career interest, career preference, academic track, senior high school, occupational interest

#### INTRODUCTION

The meaning of life for most people is strongly linked with career goals (Kosine, et. al., 2012). Choosing a career path can help one sets his professional goals and develops a strategy for getting where he wants to be. Part of choosing an appropriate career path involves making an honest self-evaluation of talents, abilities and interests (Mc Query, 2016). While elements of career path may change over time due to choice or circumstance, having an overall professional objective with which to guide oneself will help make critical decisions with greater clarity. When one has an idea of the career path he or she wants to pursue, it can help make the best decisions about his or her training and education. Understanding the requirements of a chosen path enables one to plan and to prepare for the career. Understanding the chronological steps of a career path will help make decisions about how to go about building experience.

Most students when it comes to making career choices, some of them are certain about their choices whereas others are less certain. Selecting a career is one of the most important decisions a person makes. Whatever his choice be, dictates how he will spend a major part of each day. It will also spill over his other aspects of his life, including lifestyle, his satisfaction about himself and quality of life.

Many students nowadays change career because of various reasons such as mismatch, new opportunities and cannot bear challenge in present job. When students make decision regarding career options they have manifested poor decisions because they have inaccurate or dysfunctional thought about their career interest, they like and what they prefer.

Thus, in today's world choosing the right career can be incredibly a hard task or it can be a tedious process that may eventually lead to disappointments. Many requires an ever changing demands for skills and talents because today people should expect to make multiple career changes throughout their lives and continually upgrade their skills. Often, the youth today question about their careers and most of the time they do not know where to seek for assistance in order to provide them relevant career information on how to help identify the proper career options and

choice of course they have to pursue in the future.

Another difficulty in making a career choice is the wide range of careers to choose from. Too often, only after a student has made sustainable commitment in time, energy and money or has cut off other opportunities by taking steps to enter a career, does he or she find that it is not what expected or wanted. In addition, students are not properly oriented as to what course to choose out of their interest and skills but because of the thought that these courses will provide jobs in the future so, students opt career they think will give them better paying jobs in the future (Pascual, 2014).

A person is successful in his career if he is satisfied with his work and produce quality results. Quality outputs are made possible when workers' interest and skills match with the required skills in the workplace when they enjoy and like what they are doing. With this, one should assess his/her current interest and there which he/she likes most for him/her to choose the appropriate career path. Several tools have been developed for this like testing, counseling and career guidance seminars. Aside from this, career guidance is necessary to the context of the study of K – 12 program.

The first batch of the G11 students will enroll subjects under their preferred academic tracks. Prior to this enrolment, this study was proposed to determine the occupational interests of the students and their preferred academic tracks. This is to ensure that they will be enrolled in their appropriate academic track.

For AY 2015 – 2016, the first batch of G11 students that will enrol on their respective tracks for them to acquire the basic skills they need to successfully pursue the course they wish to finish. To ensure that these students will enrol on the right track prior to enrolment, the researcher deemed necessary to conduct a study to assess the occupational interests of the students and their preferred academic tracks. This information would serve as a significant input to direct the students towards the right career path.

## **Conceptual Framework**

The conduct of the study will be anchored on the following paradigm:

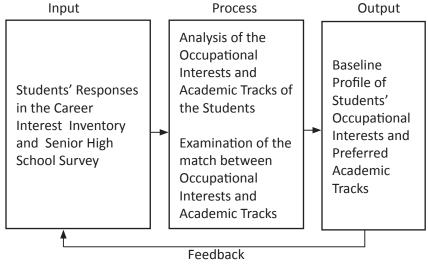


Figure 1. Paradigm of the Study

The study takes into account the students' responses on the survey questionnaires administered to them, namely, the Career Interest Inventory (CII) and the Senior High School Survey. Based on the item responses in the survey questionnaires, the researcher identified the profile of the participants in terms of their occupational interests and academic tracks. The participants' occupational interest involves their career interest and their degree of likeness to specific career. Classification of students' preferred academic tracks was patterned from the tracks defined in the K – 12 context. The study had further determined whether a match is observed on the students' occupational interest and their preferred academic tracks. A baseline information on the students' occupational interest and the preferred academic tracks is the expected output of the study.

# Statement of the Problem

This study aimed to explore the occupational interest of entering senior high school students and their preferred academic tracks in the K-12 Perspective.

More specifically, the study aimed to answer the following subproblems:

- 1. What is the occupational interest/s profile of the students in terms of the following:
  - 1.1 career interest;
  - 1.2 degree of likeness to specific career?
- 2. Are the students' career interest consistent with their degree of likeness to the specific career?
- 3. What is the students' preferred academic track?
- 4. Are the students' occupational interests consistent with their preferred academic tracks?
- 5. What career related activities can be undertaken to direct with their appropriate academic tracks given their occupational interests?

# **Scope and Limitation**

This study is focused on the profiling of students with respect to their occupational interests and preferred academic tracks based on their responses in the Career Interest Inventory and Senior High School Survey, respectively. Career Interest was classified based on the specific occupation defined in the Career Interest Inventory while students' preferred academic track is based on the K-12 defined tracks. Analysis of the match was obtained by determining corresponding pairs on the obtained students' occupational interests and their preferred academic tracks.

#### METHODOLOGY

### **Research Design**

The study utilized the descriptive survey method since it focused its investigation on profiling of students with respect to their occupational interests and preferred academic tracks and obtaining an observed match between these students' characteristics.

## Participants of the Study

The study involved 103 Grade10 students in the Basic Education Unit of St. Paul University Philippines for the school year 2015-2016. These participants is a random sample taken from the population of Grade 10 students.

#### Instrumentation

There were two data gathering instruments used in the study, namely, Career Interest Survey (CII) and Senior High School Survey. The CII, which is a standardized test, is a career guidance instrument designed to assist students in making decisions concerning their educational and vocational plans. The test consists of 169 items, 150 job activity statements designed to determine students career interest and 19 items to determine their degree of likeness to the specific career. The test was produced by the Harcourt Brace Jovanovich, Inc. The test was copyright by the Psychological Corporation. The CII results were obatined based on the defined scoring scheme.

The Senior High School Survey was used to determine the preferred academic track of the students. These tracks were categorized based on the defined K-12 academic tracks.

# **Data Gathering Procedure**

Prior to data gathering, permission was sought from the University President, the Vice President for Academics and the Principal of the Basic Education Unit. For ethical considerations, informed consent was obtained from the participants before the administration of the CII and the Senior High School Survey. The two instruments were administered on two separate days. The Senior High School Survey was administered first before the CII. The Senior High School Survey was administered by the researcher himself while the CII was administered by the high school guidance counselor. Results of the CII was obtained from the guidance office.

### **Data Analysis**

The data gathered were treated, summarized, interpreted and analyzed by using the following statistical tools. The frequency count and percentage distribution were utilized to obtain the profile of the students in terms of the following which were expressed in percentage equivalents, career interest, degree of likeness to specific career, and academic tracks. Determining the match was done by observing whether the students' specific career interest agree with their degree of likeness to the specific career. This is likewise done to determine whether their career interest and degree of likeness with their preferred academic tracks. Frequency was also used to present the number os students whose career interest match with their degree of likeness, career interest with their preferred academic track as well as those whose degree of likeness to specific career match with their preferred academic track.

#### **RESULTS AND DISCUSSION**

#### Career Interest

The results of the CII which was obtained from the guidance counselor revealed that a student have more than one career interest.

The highest frequency of students have career interest on occupation related to Mathematics and Science areas, followed by occupations on health services as supported by the percentage of 63.11 and 62.14, respectively. Furthermore, the top 5 career interests among the students include the following: Mathematics and Sciences, Health Services, Educational Services, Sales, and Management. The data indicate that students' career interests deal with computations, logic, investigations

and health. Students' having these career interest must have to take up courses such as Engineering, Education major in Mathematics, Biology, and Health-related courses. In terms of the K-12 academic track, students having these aforementioned interests are suited to take STEM (Science, Technology Education and Mathematics) courses.

# Degree of Likeness to Specific Career

Majority or 69.90% of the students like specific career related to Mathematics or Science areas. Moreover, 66.99% of them like specific career on Health care, 61.17% like career on computer technology while 52.43% have degree of likeness to career on marketing or sales. The top 5 most-liked career among students are those related to Mathematics or Science areas, health care, computer technology, marketing or sales and electronics or electrical trades.

These obtained data run consistent with the result regarding the career interests of students which signify that the prevalent occupational interest exposed by students match with the specific career they most like.

# Consistency Status on Students Career Interest and their Degree of Likeness to Specific Career

By carefully scrutinizing the different career interests of each student and matching them with their degree of likeness to specific career, results show that students' career interest jibes with their degree of likeness to specific career. This is an indicator that students like courses that are within their interests. Since the students' degree of likeness to specific career match with their career interest, making career decisions will be easier. This is supported by the idea that "when a person can link what they like to do, with jobs that fulfill those interests, they can make better career decisions" (Shawn Bakker & Donald Macnab,2004). He further stressed that occupations best suited for them people can pursue careers that are more likely to be enjoyable and satisfying. Research shows that people working in careers that match their interests are happier and more satisfied than people who are not.

The data further show that about 31% of the students have career interests that do not match their degree of likeness to specific career. This calls for guidance to help them focus their career search on areas which relate to their interests and hold the best promise for a satisfying and rewarding career.

# **Preferred Academic Tracks**

The data reveal that the cluster of courses for Science, Teachnology, Engineering and Mathematics (STEM) are the most preferred academic tracks as evidenced by the highest frequency of 52 or 50.5%, followed by those students who preferred the Accountancy, Business and Management (ABM) courses which comprise 39 or 37.9 % of them. Very few of them preferred HUMMS cluster of courses which comprise about 8% and lastly the TechVoc which is 4 or 3.9%. The data further imply that occupations/courses related to STEM is the most appealing among the Grade 10 students. This means that the students preferred to take courses in the fields of Science, Technology, Engineering and Mathematics.

# Consistency Status on Students' Career Interest and their Preferred Academic Tracks

Students' preferred academic tracks coincide with one of their career interests. This means that the students' choice of probable course track in the Senior High School is within their field of interest. However, about 27.2% of them have preferred academic track that is not consistent with their career interest. These groups of students need to be guided to redirect them with the tracks that match their career interest.

# Consistency Status on Students' degree of likeness to specific career and their Preferred Academic Tracts

As to the students' degree of likeness to specific career interest, 68% of them have preferred academic tracks that coincide with the specific career they like while 32% of them have preferred academic tracks and specific career that do not match. This finding suggests that majority of the students preferred academic tracks that they like. This result would mean that students would not find difficulty in choosing what course to pursue since they prefer courses that they like.

Noteworthy are the 32% students whose specific career interest do not match the specific career they like most. If not properly guided, these students might find difficulty in choosing what course to pursue. This brings to attention the role of guidance counselors in career counseling to redirect these students to courses that go with what they like most.

#### CONCLUSION

Students' occupational interests go with their degree of likeness to specific career and preferred track is a connotation that they are directed towards their desired career path. Students will not find difficulty in pursuing their respective career goals since these are within their interest, degree of likeness and their level of preference. Career counseling is needed by students whose career interests do not match their degree of likeness to specific career and preferred K-12 tracks so as to redirect them so that they will pursue courses that are within their level of interests. Thereby, making them effective and efficient in the field they have chosen.

#### RECOMMENDATIONS

Based on the findings and conclusion of the study, the following recommendations are offered:

Occupational interest test may be administered to entering senior high school to guide them in determining their desired career interests so they can arrive in a sound and more coherent choice of course.

Senior high school students are highly inclined to Science, Technology and Engineering-related career, therefore, the school may require more courses related to it.

Career counseling is important to realign the senior high school students according to the most coherent and appropriate courses in consonance to their specific personality, interests and abilities, thereby, it is helpful to facilitate a thorough and practical career exploration.

Teachers who have strong influence to student development may act as "teacher-counselors" working in tandem with the guidance

personnel. Thus, teachers' referral, coupled with constant follow up from the guidance counselors with regards to students' scholastic performance, can aid students to understand further their capabilities and interests and more importantly, this will further bolster the efficacy of the guidance program.

The guidance counselor may not only be limited to educational and personal issues and needs of the students. They may facilitate regularly Parenting Skills Training about career exploration of their children because parents are a determining factor in the choice of courses for their children. The Parenting Skills Training seeks to provide parents to appreciate the value of job fit in the world of employment.

Seeing the influence of occupational interests to the future work performance the guidance office is urged to devise regularly an updated guidance program so that teachers and administrators are guided in the formulation of intervention programs that are not only to improve students' performance but are also in the array of a career development.

Career Guidance program may be strengthened in the University to ensure that they are tracking the best course, with their specific interest inclinations. This also strengthens the applicability and efficiency of students' career exploration.

# References

- Bakker, S., & Macnab, D. (2004). Career Interest Profiler, Psychometrics. Canada Ltd., Edmonton). Retrieved on November 16, 2016 at https://www.psychometrics.com.
- Kosine, N., Steger, M., & Duncan, S. (2008). *Purpose-Centered Career Development: A Strengths-Based Approach to Finding Meaning and Purpose in Careers*. Professional School Counseling, December 2008, Vol. 12, Issue.

- Kelechi, L. U., & Ihuoma, C. (2011). The role of guidance counselors in the career development of adolescents and young adults with special needs. British Journal of Arts and Social Sciences ISSN: 2046 -9578, Vol.2 No.1 ©BritishJournal Publishing, Inc. 2011. http://www.bjournal.co.uk/BJASS.aspx.
- McQuerrey, L. (2016). *The Importance of Choosing a Career Path Decisions*. http://work.chron.com/influences-career-path-decisions-12307. html
- Pascual, N. (2014). Factors Affecting High School Students' Career Preference: A Basis for Career Planning Program. International Journal of Sciences: Basic and Applied Research (IJSBAR) (2014) Volume 16, No 1., pp 1-14.
- Saysay, K. (2011). A qualitative study on Pilipino American students relative to their high school success and career choices. Published Dissertation. Faculty of the USC Rossier School of Education, University of Southern California. Proquest. UMI number 346610.

# INTERNATIONAL EXPOSURE OF PAULINIAN STUDENT GOVERNMENT LEADERS: ENSUING STUDENTS' READINESS FOR ASEAN INTEGRATION

# ALMA N. QUINAGORAN, MAED EMOLYN M. IRINGAN, Ph.D.

#### **ABSTRACT**

This descriptive research study explored the experiences of Paulinian student-leaders in their international exposures. The study characterized students' exposure as to its nature, place of exposure, frequency of exposure, academic year occurred, and duration of exposure. Furthermore, the study explored on the requirements complied with by the student leaders to qualify them for international exposure, their learning experiences, their encountered difficulties, and their suggestions to intensify students' international exposure. The study considered 26 participants which covered the population of student leaders who went for international exposure for the last five years. Interview and documentary analysis were undertaken to obtain the data. Characterization of students' exposure was presented using the frequency count while the interview responses were analyzed thematically. Results of the study revealed that the student leaders who went for international exposures come from the different departments. Majority of them went for exposure once although 15 of them went more than once. Most of their destinations were in Singapore and Japan. Cultural immersion, cultural exchange, youth assembly and student exchange program were the common themes for their exposures. Majority of their exposure lasted for less than one (1) week and the longest duration was one (1) year. To qualify them for the international exposures, research projects, excellent academic standing, good communication skills and leadership skills were the common requirements. Through the international exposure, the participants claimed that they were able to learn how to deal with people, adapt and respect other cultures, enhanced culture awareness and sensitivity and acquired social values, open-mindedness. They find dealing with non-English speakers difficult brought about by communication barriers. To enhance students' readiness for ASEAN Integration, early exposure of freshmen students to international immersions, the integration of culture awareness in related courses and relevant school activities that promotes cultural awareness were suggested. As an offshoot of the study, a plan of action was formulated to strengthen students' international exposures.

**Keywords:** Student exchange, international exposure, cultural immersion, cultural exchange

#### INTRODUCTION

In highly globalized society, the competition is so intense that one needs to be highly capable in order to meet the demands of the 21st century workplace. Students must be exposed to a wide range of learning experiences to maximize their full potentials. Many experts believe that going abroad for international exposures can prove to be of immense benefit for students, as these experiences are so dynamic making them better prepared for the corporate world (Singh, 2012). The best feature of studying in a global environment is that it helps develop contacts with people of different nationalities and gives an opportunity to build a global network of contacts. In the future, some of these contacts prove to be of great help in ones' career. An international exposure helps one to get familiar with a different kind of academic pattern that would challenge one's skills as a student. This would help a student learn to adapt to new situations and it would certainly encourage them to perform to the best of their abilities. To put it in simpler words, it can be said that an international exposure contributes in the overall development of a student.

As the country embraces the ASEAN integration, it is the principal duty of the different universities like SPUP to provide programs that will propel students to become globally competent and socially responsible citizens of the global society. Educational institutions maximize these international exposures to enable students to have higher levels of self-concept, and educational aspirations as they experience global education.

These international exposures cater to the creation of linkages and lasting connections between universities, the students, partner institutions and organizations, and communities outside the Philippines. Moreover, the international exposures allow students to create their personal global network of leaders, achievers, and professionals. Thus, these student engagements direct students to understand cultural diversity, exposing them to globalized work opportunities that they are likely to face after graduation, preparing them to acquire the needed leadership skills for the next generation of effective leaders, and bringing in them different perspectives and beliefs.

St. Paul University Philippines as an internationally recognized institution dedicated to the formation of globally competent leaders, provides student engagements to students that are designed to help in their holistic development. The Uniwide Paulinian Student Government or PSG Leaders represent the different departments and programs of the University. This research on the international engagements of the PSG Uniwide student leaders aims to present the different international engagements or exposures initiated by the university through the Office of Student Affairs (OSA) and different partner organizations from all over the world. SPUP has been designated as one of the twelve participating schools in the country for the ASEAN International Mobility for Students (AIMS) programme in 2014. The university explores all possible opportunities and provides financial support to students in all activities related to international students' exchange. This study aims to document the experiences of students in their international exposures. of the investigation serve as basis in improving students' international exposures.

### **Conceptual Framework**

The investigation considered the inputs, processes and outputs as reflected in the figure below.

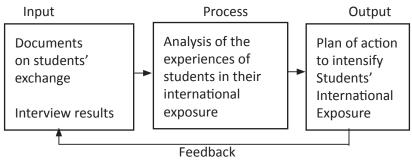


Figure 1. Paradigm of the Study

The model reflects that the documentary evidences on international students' exchange activities in the University as well as the interview results are the needed inputs for the investigation. Data obtained from the interviews were focused on students' requirements, significant learnings

gained and difficulties encountered in their international exposures. Students' suggestions to intensify students' international exposures were also culled in during the interview phase. Results of the documentary analysis and the interview conducted served as basis in planning for action to intensify students' international exposure.

#### Statement of the Problem

This study explored the experiences of Paulinian student-leaders in their international exposures. Results of this study serve as inputs in planning for action to intensify students' international exposure.

- 1. What is the profile of the participants in terms of the nature of exposure, place of exposure, frequency of exposure, academic year occurred, and duration of exposure?
- 2. What requirements did the participants comply with to qualify them for international exposure?
- 3. What did the participants learn from their international exposure?
- 4. What are the difficulties encountered by the participants in their international exposure?
- 5. What are the suggestions offered by the participants to intensify their students' international exposure?
- 6. What plan of action can be formulated to intensify students' international exposure?

#### METHODOLOGY

# **Research Design**

The study employed both the qualitative and quantitative research approach. Specifically, the descriptive survey research design was used as this described participants' profile with respect to their international

exposure, the requirements they complied with to qualify them for international exposure, the significant learnings they gained, the difficulties they encountered and their suggestions to intensify students' international exposure.

## Participants of the Study

The study considered the population of student-leaders of SPUP with international exposures for the past 5 years (N= 26) from the academic year 2010-2011 to academic year 2014-2015.

# **Data Gathering Methods**

Data on the students' profile regarding the nature of their international exposure, place of exposure, frequency of exposure, academic year occurred, and duration of exposure were obtained through documentary analysis. Interviews were conducted to obtain qualitative data on students' requirements to qualify them for international exposure, the significant learnings they obtained, difficulties they encountered and their suggestions to intensify their students' international exposure.

# **Data Gathering Procedure**

In gathering the data, the researchers went to the following procedures:

- 1. Sought the approval of the Ethics Review Committee (ERC) for the conduct of the study.
- 2. Upon approval of the ERC, the research sought permission from the University president for the conduct of the study.
- 3. Obtained the list of students who underwent international exposures for the past 5 years.
- 4. Sought informed consent from the research participants through mobile phones and social network communication modes.

- 5. Conducted documentary analysis on students' international exposures.
- 6. Obtained data on students' experiences in their international engagements.
- 7. Subjected obtained data through appropriate data analysis methods.

# **Data Analysis**

Characterization of students' exposure was presented using the frequency count while the interview responses were analyzed thematically.

#### RESULTS AND DISCUSSION

## Participants' Profile

As to course profile, 7 or 26.92% of the students with international exposures are Bachelor of Science in Nursing (BSN) students, 5 or 19.23% are Bachelor in Secondary Education (BSED) students, and 3 or 11.54% are Bachelor of Science in Public Administration and Bachelor of Science in Legal Management(BSPALM) students. There were two students from each of the courses such as Bachelor of Science in Biology, and Bachelor of Science in Information Technology, Bachelor of Science in Pharmacy, and Bachelor of Science in Accountancy who went for international engagements. Courses such as BSPsychology, BSBA and BSHRTM have one student representative for international exposures.

As to frequency of exposure, 20 or 76.92% went for international exposure once, 4 or 15.38% of them went for international visits twice. Only 1 was exposed outside the country thrice. One student was exposed for international activities four times.

Among the international exposures, majority or 68.57% of them were on cultural immersion, 5 or 14.29% were on student or youth camp, 4 or 11.43% were youth assemblies and 2 or 5.71% were focused more on student exchange or mobility programs.

Of the 35 students' exposures, 11 or 31.43% were in Singapore, 9 or 25.71% were in Japan. Furthermore, there were 4 students' exposures in Thailand, 3 student exposures in the Philippines and Taiwan, 2 in South Korea and 1 student exposure in Indonesia, United States of America and China.

There were more students' exposures during the AY 2010-2011 (n= 12), followed by 11 exposures during the AY 2014-2015. There were 6 students' exposures during the AY 2012-2013 while there were two student international exposures during the AY 2011-2012 and AY 2013-2014.

As to time duration, majority or 65.71% of the students' exposures lasted for at most 7 days, 8 or 22.86% were within 8-15 days duration, 3 or 8.06% were within 16-29 days while only one of the exposures was within a duration of one year.

# Requirements For International Exposure

Among the requirements which a student has to comply with to qualify for international exposures are as follows: possesses leadership skills; have outstanding academic performance or/ excellent academic standing; good oral communication skills or fluency in English communication both written and oral forms; passed the TOEFL IBT; must be globally competitive; must have good personality; must be a Philippine Passport Holder; must be mentally and physically fit; must be financially capable; must be a member of a school or community-based organization; must be actively engaged in socio-civic involvements/community-based exposures; and must have expertise in developing project proposals, research projects.

# Significant Learnings Gained from the International Exposures

The following were among the significant learnings gained from the international exposures: (1) Use of modern technologies in the delivery of services (i.e. health care); (2) Strategies in dealing with people with diverse personalities and culture; (3) Techniques in dealing with people (people smart); (4) Ability to adapt, appreciate and respect other cultures;

(5) Learned more about the country's history; (6) Enhanced culture awareness and sensitivity; (7) Acquired social values and value of open-mindedness; (8) Enhanced public relations skills; (9) More inputs about the field of discipline; (10) Independence; (11) Empathize with others even with other nationalities and (12)Deepened love for the country.

# Difficulties Encountered by the Students during their International Immersions

During the entire duration of the international immersion, the students encountered problems such as: language barrier since some participants are non-English speakers; lesser sleep time brought about by the hectic schedules; adjustment in time zones, climate and country's cuisine; financial difficulties; going beyond cultural borders and communication barriers; Homesickness and Cultural adjustments.

# Suggestions to Improve Students' International Exposures

Based on their experiences in the international immersions, the students offered the following suggestions to intensify: (1) The school must explore more opportunities for international engagements; (2) To enhance students' readiness for ASEAN Integration, early exposure of freshmen students to international immersions, the integration of culture awareness in related courses and relevant school activities that promote cultural awareness were suggested; (3) Echo seminar must be conducted to allow students who went for international exposure to share their rich experiences; (4) More exposure of students especially in their freshmen year; and (5) Calendar of activities must be prepared by the internationalization office to prompt students' application and deadlines for submission for application forms.

#### **Action Plan**

Based on the results of the investigation, an Action Plan was formulated in partnership with the Student Affairs and Services (SAS) Unit for eventual implementation to enhance students' international exposure. The activities involved in the plan of action were based on the following specific objectives:

- 1. Exploration of more avenues for international students' exposure.
- 2. Provision of info-board to provide regular updates on schedule for students' international trainings/ immersions.
- 3. Conduct of quarterly echo seminar for students who went for international exposure.
- 4. Forging linkages with intercultural language for language orientation and training.
- 5. Include intercultural awareness in annual activities.
- 6. Conduct of institutional leadership seminar to hone students' leadership skills.
- Requiring clubs and organizations to undertake annual activities, programs or projects that promote socio-civic involvements and community-based exposures.
- 8. Link with Intercultural Languages Office to conduct short term course on Foreign Languages and Speech and Oral Training.
- 9. Forge collaboration with international organizations and universities for more venues for students' exposure

#### CONCLUSION

The International Exposure is an avenue for students to acquire skills needed for ASEAN integration. These international exposures provide them with opportunities to learn or master the country's language, to gain valuable experience working with a diverse team, and the ability to adjust to culturally-diverse environment and to adapt with strong crosscultural communications.

#### RECOMMENDATIONS

Based on the findings and conclusion of the study, the following recommendations are derived:

The Student Affairs and Services (SAS) Office and Internationalization Office may provide online information to the students on international exposure, funding, grants, and scholarships. Furthermore, these units will forge partnership with international institutions that promote international programs.

The results of the analysis may be presented to the University's top management, to ensure full support for these planned actions.

The formulated action plan may be implemented and assessed to test its impact on students' international exposure.

# References

- Ortiz, A., Chang, L., & Fang, Y. (2015). *International Students' Mobility Trends 2015: An Economic Perspective.* 2015. Mobility Trends. http://wenr.wes.org. Retrieved January 9, 2017.
- Singh, T. (2012). *International exposure: How necessary it is for a student?*St. Paul University Philippines Student-Handbook. 2016 Edition http://www.spup.edu.ph/.
- The state of international student mobility in 2015 (2015, November 5). ICEF Monitor. http://monitor.icef.com. Retrieved January 9, 2017.

# ANTI-LETHAL TOXICITY AND ANTI-PHOSPHOLIPASE A2 ENZYME ACTIVITY OF MAKAHIYA (MIMOSA PUDICA) ROOT EXTRACT AGAINST PHILIPPINE COBRA (NAJA PHILIPPINENSIS)

### MELISA T. REBOLDERA, RPH, MPH, MSTChem

#### **ABSTRACT**

The study was conducted to evaluate the antivenom property of makahiya ethanolic root extract using its different concentrations against the median lethal dose of the Philippine cobra. The makahiya roots were extracted with 80% ethanol using a soxhlet apparatus and were concentrated until twenty milliliters were obtained with a rotatory evaporator. In the biological assay for the anti-lethal toxicity, a completely randomized design was used on twenty mice weighing about 16-20 grams, assigned for control and the three concentrations of makahiya ethanolic root extract with five (5) replications, using the Intravenous-tail vein route. Spectrophotometry-Turbidity method was used in the Anti-PLA2 enzyme activity assay. Egg yolk suspension was prepared with a 0.9% NaCl as the buffer. The egg yolk suspension was further diluted until the absorbance was 1.2. The different concentrations of makahiya previously mixed with venom was incubated with the egg yolk suspension. Absorbance and transmittance were measured for the five replications in each group. Based on the statistical analysis, there is no significant difference in the anti-lethal activity of the different concentration of makahiya ethanolic root extracts and the anti-PLA2 enzyme activity of Philippine cobra's venom. The biological assay results indicate that makahiya ethanolic root extract increases the survival rate and protection fold against the Philippine cobra venom. Therefore, the makahiya (Mimosa pudica) root extracts have a potential neutralizing effect on the venom of the Philippine cobra.

Keywords: Antivenom, makahiya, phospholipase A2 enzyme

#### INTRODUCTION

From antiquity, snakebite has been a major health problem especially in tropical countries like the Philippines. The estimate of the mortality rate of snakebite in the Philippines is about 200-300 each year (WHO South-east Asia, 2008). The death rate from Philippine cobra bite was estimated to be as high as 107.1 deaths per 100,000 population per year at one site. Most victims were young (median age 17) and 98% were males. Only 8% of the victims studied reached a hospital, and most of them never seek proper medical treatment. The confirmed death rate averaged 53.8/100,000 for the three populations noted in the study (U.S. Naval Medical Research, 2011).

In the treatment of snakebite, antivenom immunotherapy is available in the market. The commercial antivenom in the Philippines is manufactured only by RITM (Research Institute for Tropical Medicines). The preparation of the antivenom immune sera is very tedious and very costly because it requires the production of immune bodies in pure breed horses which are imported from other countries. This makes the commercial antivenom expensive and less accessible. Furthermore, Antivenom immune sera need storage at stable, low temperatures and need cold chain method (2-8 °C), but many villages do not have electricity or have an unstable supply of electricity. These hinder many commoners from accessing the medicines they needed. As a result, they often resort to indigenous healing practice like Tandok for treating snakebite. Tandok, however, is not recommended because it is highly invasive and may result in tetanus, hepatitis and other skin infections (Sun Star, 2013 issue).

The Family income and expenditures Survey (FIES) 2007 report showed that on average, two-thirds (67%) of all health care expenses by Filipinos were spent on buying medicines due to a high price of commercial medicines available in the market. Also, prices in the Philippines for the chosen drugs were a lot higher compared to other countries in Asia. (President of Philippine Government Corporation engaged in parallel importation of selected medicines, 2011 figures).

Retail prices of medicine in Indonesia, Malaysia, and Thailand, are 40 percent to 70 percent lower than in the Philippines (The Manila Times,

2012). As a result, low-income families cannot afford the medicines they needed for a quality healthcare. Most of the people in rural areas prefer traditional healing practices instead of professional medical treatment. A classic example is the case of snakebites.

The answer to this problem is the production of alternative medicine against snakebite from plants that are indigenous in the community. This plant which is readily available in the community will help common people that are financially incapable of buying the commercial antidote. A good example is the makahiya plant. Makahiya (Mimosa pudica) root extract shows a promising antivenom property (Pharmacognosy magazine, 2012).

## **Objectives of the Study**

This study sought to evaluate the effectiveness of makahiya (Mimosa pudica) ethanolic root extract against the venom of Philippine cobra (Naja philippinensis).

Specifically, it aimed to determine which of the three (3) concentrations of makahiya ethanolic root extract is the most effective dose against the toxic effects of Philippine cobra venom; and to identify if there is a significant difference in the activity of the three concentrations of makahiya ethanolic root extract against the toxic effects of Philippine cobra venom.

# **Hypothesis**

There is no significant difference in the activity of the three concentrations of makahiya ethanolic root extract against Philippine cobra venom.

#### **METHODOLOGY**

This chapter discusses the methods, preparations, and procedures that were utilized in the evaluation of the property of Mimosa pudica ethanolic root extracts against the venom of a Philippine cobra.

The complete randomized design-experimental method was employed in the study.

# A. Collection of Plant Sample

The makahiya roots Http from Ballesteros, Cagayan. The gathered makahiya roots were washed with clean water and subjected to air drying. The air-dried roots were stored in a clean container ready for the extraction process.

#### B. Ethanolic Extraction

The extraction process and biological assay were conducted in St. Paul University Philippines – Science Laboratory, SP Building, Tuguegarao City, Philippines.

The air dried makahiya roots were cut into small pieces and washed with distilled water. Twenty (20) grams of the makahiya roots were macerated with 200 mL of 80% ethanol overnight and extracted with Soxhlet apparatus for 6 hrs refluxing at 60-80 °C. The extraction process yielded an extract which was dark-brown in color. The makahiya root residues were discarded properly. The makahiya extract was concentrated using a rotary evaporator until an approximate of twenty milliliters was obtained. The final extract was placed in a clean tightly stoppered amber glass container and stored in 4 °C after proper filtration process. The procedure was repeated until enough amount of makahiya ethanolic root extract was obtained.

100% makahiya ethanolic root extract concentration was the pure extract obtained after the extraction process using soxhlet apparatus and concentration procedure using the rotary evaporator. The pure extract was diluted with distilled water to come up with the 75% and 50% makahiya ethanolic root extract concentrations.

- 1. 100% concentration = pure makahiya ethanolic root extract after extraction and concentration processes
- 2. 5% concentration = 75mL of the pure makahiya ethanolic root extract diluted with 25 mL distilled water to make 100 mL, 3.50%

concentration = 50mL of the pure makahiya ethanolic root extract diluted with 50mL distilled water to make 100 mL.

## C. Biological assay

The lyophilized powder of Philippine cobra venom was purchased from RITM (Research Institute of Tropical Medicine) in Alabang, Muntinlupa City. The venom has 0.56 mg/kg LD50.

The lyophilized powder of Philippine cobra's venom was diluted to the normal saline solution (1g lyophilized powder diluted to 100 mL normal saline solution – 1:100). The solution of Philippine cobra venom was used in the anti-Lethal toxicity and anti-PLA2 enzyme activity biological assay.

# C.1. Anti-Lethal toxicity Activity

The graded dose of the venom was computed based on the weight of the mice using the 0.56 mg/kg LD50. The venom solution was mixed with equal amount of the three different concentrations of makahiya ethanolic root extract (100%, 75%, and 50%). Thirty minutes incubation period was allotted for the neutralization process to take place in the mixtures.

Control. Injection of the computed volume of the 0.56 mg/kg LD50 of Philippine cobra venom.

Treatment 1. Injection of the computed volume of the 0.56 mg/kg LD50 of Philippine cobra venom mixed with the 100% concentration of makahiya ethanolic root extract.

Treatment 2. Injection of the computed volume of the 0.56 mg/kg LD50 of Philippine cobra venom mixed with the 75% concentration of makahiya ethanolic root extract.

Treatment 3. Injection of the computed volume of the 0.56 mg/kg LD50 of Philippine cobra venom mixed with the 50% concentration of makahiya ethanolic root extract.

After the 30 min incubation period of the prepared three treatments,

they were filtered using a micro-filter. The filtered product was used for the biological assay for anti-Lethal toxicity effect of makahiya.

The test animals - albino mice both male and female weighing 16-20 g were individually identified and allowed to acclimatize to laboratory condition for seven days before the biological assay in standard cages. They were kept in a 12/12 hour light-dark cycle. Food pellets and water were available ad libitum. Each experimental group was matched with the parallel control group. The three treatments were injected into the tail vein of mice. Each treatment had five replications. Death or survival of the test animals with the time of survival was noted within the 24-hour observation.

## Mouse Tail Vein Injection

The mouse was removed from the cage by its tail. Then, one of the two lateral veins of the tail was located. The needle was lined up straight to one of the lateral veins. The material was injected into the vein. The syringe was discarded properly. Tuberculin syringes were used for the administration of the mixture in the test animals.

The test animals were marked with a pen to identify their group. The time of death and survival of the test animals were recorded. After the observation, the dead albino mice were properly buried, and all the materials used in the experiments were properly washed or discarded as based on the standard operating procedures for laboratory practice.

# C.2. Neutralization of Phospholipase A2 activity

A fresh egg yolk suspension was prepared in 0.9% NaCl. The egg yolk suspension was diluted further with 0.9% NaCl until the absorbance at 925 nm was 1.2. The three treatments mixed with venom were prepared using the same procedure used in the anti-Lethal toxicity assay.

Control. Solution of the 1:100 dilutions of Philippine venom plus the egg yolk suspension.

Treatment 1. Mixture of equal amount of 100% concentration of

makahiya ethanolic root extract and 1:100 dilution of Philippine cobra venom plus egg yolk suspension.

Treatment 2. Mixture of equal amount of 75% concentration of makahiya ethanolic root extract and 1:100 dilution of Philippine cobra venom plus egg yolk suspension.

Treatment 3. Mixture of equal amount of 50% concentration of makahiya ethanolic root extract and 1:100 dilution of Philippine cobra venom plus egg yolk suspension.

The three treatments and the control group were incubated at 37 °C for 30 min. After the incubation, the mixture was centrifuged for 10 min and the supernatant liquid was tested for the PLA2 enzyme activity using the spectrophotometry–turbidimetric analysis. Absorbance and Transmittance of each treatment and the control group were measured. Each of the treatments and the control group has five replications.

#### RESULTS AND DISCUSSION

This chapter discusses the result of the biological assay performed to evaluate the effectivity of makahiya ethanolic root extract against Philippine cobra venom. One way—ANOVA was used in the statistical analysis of data.

Table 1 presents the survival and death with the corresponding survival time of the test animals-albino mice in the biological assay of the Anti-Lethal toxicity of makahiya ethanolic root extract.

Legend:

S- Survived

D- Died

	Test animal (mice)	Survival Time	Dead/Survived
Control Group	1	12 min	D
(Venom)	2	4 min	D
	3	9 min	D
	4	8 min	D
	5	5 min	D

	Test animal (mice)	Survival Time	Dead/Survived
Treatment 1	1	24 hrs	S
(100% makahiya	2	17 hrs & 45 min	D
extract +	3	24 hrs	S
Venom)	4	24 hrs	S
	5	24 hrs	S
Treatment 2	1	14 hrs & 5 min	D
(75% makahiya	2	13 hrs & 32 min	D
extract +	3	24 hrs	S
Venom)	4	24 hrs	S
	5	16 hrs & 50 min	D
Treatment 3	1	12 hrs & 10 min	D
(50% makahiya	2	8 hrs & 7 min	D
extract +	3	11 hrs & 20 min	D
Venom)	4	24 hrs	S
	5	24 hrs	S

Twenty albino mice (male and female) weighing 16-20 grams were randomly picked for the evaluation of the Anti-Lethal Toxicity activity of makahiya ethanolic root extract. In control, all of the 5 test animals died with a survival period of 4-12 min after the administration of the venom IV-tail vein as based on the 0.56 mg/kg LD50.

Among the treatments, treatment 1 (100 % concentration of makahiya ethanolic root extract) showed the most promising result with only one mortality and four of the test animals survived. The 75% and 50% concentrations showed the same result, with two survived mice and three mortality in each group.

Even if some of the animals died during the 24 hrs observation, still the makahiya extract significantly increased the survival rate of the test animals ranging from 8 hrs and 7 min to 17 hrs and 24 min. This indicates that makahiya ethanolic root extract increased the protection fold against the Philippine cobra venom.

Table 2. Contingency Table for the Significant Difference among the three concentrations of Makahiya Ethanolic Root Extract in Anti-Lethal Toxicity Assay

Dependent	(I)	(J)	Mean Difference	Std. Error	Sig.	95% Confidenc	e Interval
Variable	treatment	treatment	(I-J)			Lower Bound	Upper Bound
		treatment 1	-1357.40000*	181.32096	.000	-1922.6043	-792.1957
	control	treatment 2	-1101.80000*	181.32096	.000	-1667.0043	-536.5957
		treatment 3	-947.80000°	181.32096	.001	-1513.0043	-382.5957
treatme		control	1357.40000*	181.32096	.000	792.1957	1922.6043
	treatment 1	treatment 2	255.60000	181.32096	.587	-309.6043	820.8043
Survival time		treatment 3	409.60000	181.32096	.207	-155.6043	974.8043
Survival time	,	control	$1101.80000^*$	181.32096	.000	536.5957	1667.0043
	treatment 2	treatment 1	-255.60000	181.32096	.587	-820.8043	309.6043
		treatment 3	154.00000	181.32096	.867	-411.2043	719.2043
trea		control	947.80000*	181.32096	.001	382.5957	1513.0043
	treatment 3 trea trea	treatment 1	-409.60000	181.32096	.207	-974.8043	155.6043
		treatment 2	-154.00000	181.32096	.867	-719.2043	411.2043

<sup>\*.</sup> The mean difference is significant at the 0.05 level.

In the statistical analysis of the data in the anti-Lethal toxicity assay, there is no significant difference among the concentration of makahiya ethanolic extract. This indicates that the three concentrations (100%, 75%, and 50%) were equally effective against the Philippine cobra venom. While the control showed a significant difference when compared to the three treatments.

Table 3 presents the measured absorbance and transmittance of the three treatments and the control group with the corresponding five replications.

Table 3. Anti-Phospholipase A2 Activity

	Replications	Absorbance	Transmittance
Control (venom + Egg	1	0.949	11.8
suspension)	2	0.948	11.8
	3	0.948	11.8
	4	0.947	11.9
	5	0.949	11.8
Treatment 1 (100% makahiya	1	0.976	10.4
extract + Venom + Egg	2	0.980	10.1
suspension)	3	0.979	10.1
	4	0.978	10.2
	5	0.979	10.1

	Replications	Absorbance	Transmittance
Treatment 2 (75% makahiya	1	0.964	10.8
extract + Venom + Egg	2	0.965	10.9
suspension )	3	0.964	10.8
	4	0.963	10.8
	5	0.963	10.8
Treatment 1 (50% makahiya	1	0.960	11.2
extract + Venom + Egg	2	0.959	11.2
suspension )	3	0.959	11.2
	4	0.957	11.1
	5	0.958	11.2

In the spectrophotometric analysis, treatment 1 (100% makahiya ethanolic root extract) showed the highest absorbance and with the corresponding lowest transmittance followed by the 75% and 50%.

In the control group which is a mixture of venom and egg suspension, the venom increased the coagulation of the egg yolk suspension as shown by the decrease in absorbance from the initial 1.2 to 0.94+1. The control showed the lowest absorbance and the highest transmittance.

The findings indicate that makahiya ethanolic root extract can neutralize the PLA2 enzyme, thus preventing the venom to increase the coagulation of the egg yolk suspension over time.

Table 4. Contingency Table for the Significant Difference among the three concentrations of Makahiya Ethanolic Root Extract in the Anti-PLA2 activity

Dependent	(I)	(J)	Mean	Std. Error	Sig.	95% Confide	nce Interval
Variable	treatment	treatment	Difference (I-J)			Lower Bound	Upper Bound
Variable absorbance	control treatment 1	treatment 1 treatment 2 treatment 3 control treatment 2 treatment 3	03400* 01700* 01280* .03400* .01700* .02120* .01700*	.00082 .00082 .00082 .00082 .00082 .00082 .00082 .00082	.000 .000 .000 .000	0366 0196 0154 .0314 .0144 .0186	Upper Bound031401440102 .0366 .0196 .0238 .01960144 .0068
,	treatment 3		.01280* 02120*	.00082 .00082 .00082	.000 .000	.0102 0238	.0154 0186 0016

<sup>\*.</sup> The mean difference is significant at the 0.05 level.

The statistical analysis showed that the three concentrations of makahiya ethanolic root extract are not equally effective against the PLA2 enzyme present in the Philippine cobra venom. Treatment 1 (100% concentration of makahiya ethanolic root extract) showed the most promising effect against the PLA2 enzyme.

#### CONCLUSION

From the observations and results gathered from the study, it can be concluded that makahiya (Mimosa pudica) root extract has a potential antivenom effect against Philippine cobra (Naja philippinensis) and better result can be seen in higher concentration.

While 100% protection has not been achieved with the makahiya ethanolic root extract, the fact that there were survivors in the experiment was significant, since in the corresponding control group all of the animals died and in the anti-PLA2 activity assay, it was found that makahiya can neutralize the PLA2 enzyme.

The chemical constituents of makahiya ethanolic root extract can be held responsible for the neutralizing effect of makahiya root extract against the action of snake venom. The active constituents that have been identified to be present in the makahiya root extract were alkaloids, tannins, D-mannitol, beta-sitosterol, and flavonoids, based on the selected phytochemical screening as published in Pharmacognosy and medical journals.

These different chemical constituents shown to occur in this plant (Mimosa pudica) are capable of interfering with the macromolecule target.

#### RECOMMENDATIONS

Based on the findings and conclusion of the study, the following recommendations are drawn:

Further purification of the extract and isolation of the active constituents responsible for the antivenom effect of makahiya root.

Consider other solvents for the extraction process.

Identification of the minimum therapeutic dose and the median lethal dose (LD50) of the makahiya ethanolic root extracts.

Extend the duration of time for observation.

Consider another venom from other species of snakes in the evaluation of the antivenom property of makahiya.

### References

- Bermosa, N. S. (2002). Department of Neurology, The Institute of Neurological Sciences, CARE Hospitals, Nampally, Hyderabad 500 001. Journal of Postgraduate Medicine, Vol. 48, Issue 4, pp. 275-279.
- \_\_\_\_\_\_. (2008, September 22). *Top 15 Most Venomous Cobras in the World*. Scienceray.com.
- Boulenger, G. (2000). *The Snakes of Europe*. Arment Biological Press, Landisville PA.
- Bourassa, D. J. (2007). Why Eat your fruits and vegetables is good advice?
- Chippaux, J.P., Williams, V., & White, J. T. (2007). *The American Society of Tropical Medicine and Hygiene*. Am. J. Trop. Med. Hyg. pp. 538-546.
- Chopra, N., Nayar, S., & Chopra, I. (2002). *Glossary of Indian Medicinal Plants*. CSIR Publication, New Delhi.
- Danesller (2008, November 30). *Philippine Cobra: 'ulupong' World's dangerous snake.*

- Fattepur, S. R. & Gawade, S. P. (2004). Preliminary Screening of Herbal Plant Extracts for Anti-venom activity against Common Sea Snake (Enhydrinaschistose) Poisoning. Pharmacognosy Magazine. 16:56–60.
- Friede, T. (2006). Venomous Snake Vaccinology, 5th World Congress of Herpetology in Africa.
- \_\_\_\_\_\_\_. (2008, October 3). A proposed pilot study of ophidian DNA vaccinology.
- Gutiérrez, J. M. (2002). Rev. Biol. Trop., 50, 377.
- Havsteen (2005). Flavonoids a class of natural product of high pharmacological potency. Biochemical Pharmacology. 32: 1141-48.
- Mahanta, M. & Mukherjee, A. K. J. (2001). Ethnopharmacol. P.75,55.
- McCue, M. D. (2007, August 1). Prey envenomation does not improve digestive performance in western diamondback rattle snakes (Crotalus atrox).
- Meenatchisundaram, S., Parameswari, G., Subbraj, T., & Michael, A. (2008). *Anti-venom Activity of Medicinal Plants A Mini Review of Microbiology*. PSG College of Arts and Science, Coimbatore, India.
- Meier, J. & White, J. (2002). Clinical Toxicology of Animal Venoms and Poisons. Boca Raton, CRC Press, Santosh, R., Fattepur1 & Shivaji P Gawade2, Pharmacognosy Magazine/ISSN/0973-129656PHCOG/MAG.An official Publication of Phcog.NetPHCOG MAG/Research.
- Mimosa pudica (2001). *The State of Queensland (Department of Natural Resources) Pest Fact Sheet.* http://www.bio.miami.edu/mimosa/mimosa.html.
- Monson, K., & Schoenstadt, A. (2008, July 23). Copyright © 2006-2008 Clinaero, Inc. eMedTV serves only as an informational resource.: http://www.prostate.emedtv.//com/beta-sitosterol/beta-sitoste.

- Murthy, J. M. K. (2003). Type of Poisonous Snakes/Snake Gallery Management of Snake/BiteSnakes Some Facts.
- Quito, S. (2008, February 3). *Generics medicine law enforcement dismal*. Health Dept. blames doctors and pharma lobby/The Manila Times.
- Selvanayagam, Z., Gnabavebdhan, s., Balakrishna, K., Rao, R., Sivaraman, J., Subramanian, K., Puri, R., & Puri, R. K. (2005). *Ehretianone, a novel quinonoid xanthene from Ehretia buxifolia with anti-snake venom activity.*/Natural Products. 59: 664-667.
- Stocker, K., (2005). The composition of snake venoms. In: Medical use of snake venom proteins. CRC Press, Buston.33.
- Villar, R., Gacias, M. & Cureg, M. (2006). *Preliminary study of the kamantigue flowers against the venom of Philippine cobra*.
- World Health Organization (2005). *Guidelines for the Clinical Management of Snakebite in the South-East Asia Region*/ Sun.Star/(2005 November, 25), Native healing for snakebites not recognized by health office Article on the preliminary screening of herbal plant extracts for Anti-venom activity against Common Sea Snake (Enhydrina schistose)Poisoning/2008.

## RESEARCH AND PUBLICATIONS OFFICE DATA MANAGEMENT SYSTEM

### LYNGELLE D. TOLENTINO, MIT

#### **ABSTRACT**

The study aimed to develop a system for the Research and Publications Office in the archiving of documents. The study is an applied research as it focused on Systems Development. Survey questionnaires, Interviews, observations and internet surfing were employed as data gathering tools to obtain relevant information that are instrumental to the development of the system. There were 255 research participants which included five (5) groups of users: the administrator, employees of the University, the secretary and the dean of each department, and randomly selected quests from the different departments. Frequency and Percentage Count, Mean, Weighted Mean and Simple Random Sampling, and Slovin's Formula were employed for data analysis. The findings revealed that the current system on research output management "needs improvement." This implies that the participants encountered difficulties in the submission of research outputs in soft copies, sorting and monitoring of research outputs, and feedbacking of results using the current system. Moreover, the publication output management of the current system is "poor." This implies that the participants encountered difficulties in collecting, editing, printing and sorting of publication outputs, and feedbacking of results. Conversely, on research output management and publication output management of the proposed system is "very satisfactory." The proposed research and publication data management system was assessed in terms of its functionality, reliability, usability, maintainability and portability to be "very highly efficient." The result implies that the proposed system is more efficient compared to the current system because it is automated and it contains the desired features/capabilities to facilitate transactions, processes and to keep track of research and publication outputs.

**Keywords:** Research management, publication management, data management system

#### INTRODUCTION

Things are changing rapidly as the world is progressing. Technology continues to evolve dramatically. Because of the advancements of technology, people specifically programmers are now faced to embrace the challenge of changing manual systems to computerized systems to make the work of people easier.

Computers make our lives completely different and are of great help to sectors that have been applied with such. It is the main weapon for programmers to create incentive systems. Until now computer continues to reign & evolve into the world of programmers and to common individuals because it creates connections, attachments and relations from man. It offers comfort in terms of compiling and accessing files.

Documents such as newsletters, journals and researches are very essential, particularly to institutions. It is for this reason that digitization of documents will take place to preserve the document and to make the documents more accessible.

In this case, the Research and Publications Office of St. Paul University Philippines needs to upgrade its manual system leading to automation. Currently, the office is using manual procedure in storing researches submitted by undergraduate and graduate students as well as the employees of the University.

Therefore, through the automation of the manual process, the tasks in the Research and Publications Office will become easier and lighter. The records will be more reliable and generation of reports will be made faster.

## **Conceptual Framework**

This study used the SCRUM Agile Development Methodology Diagram (Helios Financial Corporation, 2011) as a process model of the system development.

## RESEARCH AND PUBLICATIONS OFFICE DATA MANAGEMENT SYSTEM

### LYNGELLE D. TOLENTINO, MIT

#### **ABSTRACT**

The study aimed to develop a system for the Research and Publications Office in the archiving of documents. The study is an applied research as it focused on Systems Development. Survey questionnaires, Interviews, observations and internet surfing were employed as data gathering tools to obtain relevant information that are instrumental to the development of the system. There were 255 research participants which included five (5) groups of users: the administrator, employees of the University, the secretary and the dean of each department, and randomly selected quests from the different departments. Frequency and Percentage Count, Mean, Weighted Mean and Simple Random Sampling, and Slovin's Formula were employed for data analysis. The findings revealed that the current system on research output management "needs improvement." This implies that the participants encountered difficulties in the submission of research outputs in soft copies, sorting and monitoring of research outputs, and feedbacking of results using the current system. Moreover, the publication output management of the current system is "poor." This implies that the participants encountered difficulties in collecting, editing, printing and sorting of publication outputs, and feedbacking of results. Conversely, on research output management and publication output management of the proposed system is "very satisfactory." The proposed research and publication data management system was assessed in terms of its functionality, reliability, usability, maintainability and portability to be "very highly efficient." The result implies that the proposed system is more efficient compared to the current system because it is automated and it contains the desired features/capabilities to facilitate transactions, processes and to keep track of research and publication outputs.

**Keywords:** Research management, publication management, data management system

### **Quality Assurance**

In this phase, the researcher used the feedbacks and suggestions for the improvement of the system. System flaws or bugs were detected and were fixed in this phase.

### Deployment

It is where the proposed system was deployed to the organization that highly needs the system.

### Statement of the Problem

The study aimed to develop a system for the Research and Publications Office for the purpose of archiving the office documents.

Specifically, this study sought to answer the following:

- 1. What is the assessment of the participants on the current system regarding the following transactions and processes:
  - 1.1 Submission of Research Outputs (Soft Copy):
    - 1.1.1 Collection of Research Outputs;
    - 1.1.2 Sorting Research Outputs;
    - 1.1.3 Monitoring of Research Outputs; and
    - 1.1.4 Feedbacking of Results?
  - 1.2 Submission of Publication Outputs (Soft Copy):
    - 1.2.1 Collection of Publication Outputs;
    - 1.2.2 Editing of Publication Outputs;
    - 1.2.3 Printing of Publication Outputs;
    - 1.2.4 Sorting of Publication Outputs; and
    - 1.2.5 Feedbacking of Results?
- 2. What data management system can be developed to automate the current system?
- 3. What is the degree of effectiveness of the proposed Data Management System of the Research and Publications Office of St. Paul University Philippines regarding the following software characteristics/capabilities:

- 3.1 Functionality;
- 3.2 Reliability;
- 3.3 Usability;
- 3.4 Maintainability; and
- 3.5 Portability?

#### **METHODOLOGY**

## **Research Design**

This study is an applied research for it focused on Systems Development to automate processes in organizing research related documents in the office. The system is expected to facilitate in the generation of reports.

## Participants of the Study

The 255 participants, which include five (5) groups of users: the administrator, employees of the University, the secretary and dean of each department, and guests, were randomly selected from the different departments. The Slovin's Formula was used to determine the sample size of the participants. For the administrator, the Research and Publications Office managed it. As for the employees, they were the ones who uploaded their researches. The work of the secretary was to upload the researches of the graduating students under their department. The Dean has access to viewing and printing reports of the students who had submitted researches under their department. The guests have to log in to the system to be approved by the administrator to fully view the content of the researches and other relevant information stored in the system.

## **Data Gathering Instruments**

Varied methods of gathering data were used to obtain relevant information needed for the development of the system.

Interview. The researcher interviewed the concerned personnel to understand some information that was beyond the researchers' knowledge.

Observation. Through this method, the researcher was able to formulate questions and see how the system requirements were developed.

Internet Surfing. There were information that were not readily available, so the researcher used the Internet to provide more information about the study and likewise to look for the related study.

Survey Questionnaire. The researcher floated two sets of questionnaires, a pre-survey and post-survey questionnaire. A pre-survey questionnaire was used to assess the degree of seriousness of the problems encountered in the manual system while a post-survey questionnaire was used to determine the degree of effectiveness of the proposed system regarding software characteristics/ capabilities.

### **Data Analysis**

The data were tallied and analyzed according to the objectives of the study and were treated using descriptive statistics.

The following statistical tools were employed in the treatment of the data:

Frequency and Percentage Count. This was used to obtain the participants' readiness and willingness to use the proposed system.

Mean. This was used to determine the differences on the ratings of the participants based on data gathered.

Weighted Mean. The Weighted mean was used as a statistical measure to compute for the average of the obtained data.

Simple Random Sampling and Slovin's Formula. It was used to proportionally allocate the participants per position which include faculty, staff, and guests.

#### RESULTS AND DISCUSSION

## A Summary of the Participants' Assessment on the Current System on Research Output Management

With regard to the submission of research outputs, sorting of research outputs, monitoring of research outputs and feedbacking of results showed that the completeness of the outputs submitted, time allocation spent and effort in categorizing of outputs by department, authors, year conducted and type of research, accuracy and precision in categorizing outputs, viewing of submitted outputs, outright dissemination of feedbacks to the researchers and confirmation in response to the disseminated feedback are "need improvement" items with weighted means of 1.15, 1.48, 1.48, 1.34, 1.44, 1.29 and 1.26, respectively. However, promptness of submission of research outputs by the employees and students, checking of submitted outputs, and verification of submitted outputs are items considered "poor" with weighted means of 1.85, 1.92 and 1.94, respectively. An overall weighted mean on the assessment of the participants on the current system on research output management is 1.52 with a descriptive interpretation of "need improvement." This implies that the participants encountered difficulties in the submission of research outputs in soft copies, sorting, monitoring and feedbacking of results using the current system.

## A Summary of the Participants' Assessment on the Current System on Publication Output Management

In terms to the collecting, editing, printing and sorting of publication outputs, and feedbacking of results revealed that the participants considered time and effort in the sorting of publication outputs by date of creation and type of publication, outright dissemination of feedbacks to the researchers and confirmation in response to the disseminated feedback were assessed as "need improvement" with weighted means of 1.56, 1.27 and 1.41, respectively. While, promptness of submission of publication outputs by the employees and students, Completeness of the outputs submitted, Accuracy and precision in editing outputs, time and precision in editing the publications, accuracy and precision in categorizing were considered "poor" with weighted means of 1.81, 1.85, 1.83 and 2.19, respectively. On the other hand, items on confidentiality of the publications and accuracy in editing outputs are considered "satisfactory". Further, the data reveal that the overall weighted mean on the assessment of the participants of the study on the current

system under publication output management is 1.91 with a descriptive interpretation of "poor". This implies that the participants encountered difficulties in the collecting, editing, printing and sorting of publication output and feedbacking of results. With these difficulties encountered by the participants in the submission of research outputs on research and publication which were based on the evaluation of the participants, an intervention could be done to enhance the current transactions and processes, Thus, the researcher proposed a Data Management System to easily track the submission of research and publication outputs of employees as well as viewing of outputs by the guests.

## A Summary of the Participants' Assessment of the Proposed System on Research Output Management

On the proposed system which includes submitting, sorting, and monitoring of research outputs, and feedbacking of results, findings showed that the participants considered the item promptness of submission of research outputs by the employees and students got a weighted mean of 2.65 with a descriptive interpretation of "satisfactory". However, the items completeness of the outputs submitted, checking of submitted outputs, verification of submitted outputs and confirmation in response to the disseminated feedback garnered "very satisfactory" result with weighted means of 4.01, 3.52, 4.17 and 3.99, respectively. On the other hand, the items, time allocation spent and effort in categorizing of outputs by department, authors, year conducted and type of research, accuracy and precision in categorizing outputs, viewing of submitted outputs and outright dissemination of feedbacks to the researchers were assessed as "excellent" with weighted means of 4.23, 4.25, 4.23, 4.39 and 4.27, respectively. The overall weighted mean on the assessment of the participants on the current system on Research Output Management is 3.97 with a descriptive interpretation of "very satisfactory". This means that the participants could easily facilitate the transactions and processes on the submission of research outputs in softcopies, sorting and monitoring of research outputs.

## A Summary of the Participants' Assessment of the Proposed System on Publication Output Management

For the proposed system which includes the collecting, editing, printing and sorting of publication outputs and feedbacking of result, the items

promptness of submission of Research outputs by the employees and students and completeness of the outputs submitted were rated as "satisfactory" with weighted means of 3.41 and 3.82, respectively. However, the items, time and effort in editing the publications, accuracy and precision in editing outputs, confidentiality of the publications, outright dissemination of feedbacks to the researchers and confirmation in response to the disseminated feedback were described as "very satisfactory" with weighted means of 3.57, 3.51, 4.09, 4.19 and 4.15, respectively. On the other hand, the items, time and effort in sorting of publication outputs by date of creation and type of publication and accuracy and precision in categorizing outputs were rated as "excellent" with weighted means of 4.68 and 4.57, respectively. The overall weighted mean on the assessment of the participants on the current system under publication output management is 3.99 with a descriptive interpretation of "very satisfactory". This implies that the transactions and processes on the collecting, editing, printing and sorting of publication output, and feedbacking of results could easily be facilitated with the use of the proposed system.

# A Summary of the Participants' Responses on the Assessment of the Degree of Effectiveness of the Proposed Research and Publications Office Data Management System

Results unveiled that the proposed research and publication data management system regarding its capabilities, particularly on its functionality, reliability, usability, maintainability and portability is "Very High" with an overall mean of 4.45. The result implies that the proposed system is more efficient compared to the current system because it is automated and it contains the desired features/capabilities to facilitate transactions, processes and to keep track on research and publication outputs.

#### CONCLUSION

From the above findings, the researcher concluded that the proposed Data Management System compared to the current system used by the Research and Publications Office is more efficient in facilitating the different transactions and processes, and in keeping track of files regarding research and publication outputs.

#### RECOMMENDATIONS

Based on the findings and conclusion of the study, the following

#### recommendations are offered:

Research and Publications Office may adopt and implement the Data Management System to keep track and easily monitor the research and publication outputs.

System developer conducts an orientation on the use of the Research Data Management System for faculty, students and staff.

The graduating students may be given an orientation on how to access researches in the system.

Research and Publications Office may consider having an IT Graduate to manage the proposed system.

### References

- Alhaji, I. U. (2009). Digitization of Library Resources and The Formation of Digital Libraries: A Practical Approach. Retrieved January 2015 from www.ais.up.ac.za/digi/docs/paper\_alhaji.doc.
- Document Management System. Retrieved January 2015 from http://faxsolutions.opentext.com/document-management.
- Ghemawat, S., Gobioff, H., & Leung, S. T., *The Google File System* (2003, October). Retrieved on January, 2015 from http://research.google.com/archive/gfs.html.
- Paguigan, L. A. (2014). Computer-Aided Entrance Examination of the Regional Science High School Tumauini, Isabela.
- Sitts, M. K. (2000). *Handbook for Digital Projects: A Management Tool for Preservation and Access*. Retrieved January 2015 from https://www.nedcc.org/assets/media/documents/dman.pdf.
- Valdez, J. (2014). Electronic Human Resource Management for Isabela State University, Ilagan Campus, Isabela.
- Yu, L., Yang, J., Yang, D. & Yang, X. (2013). A Decision Support System for Finding Research Topic based on Paper Recommendation. PACIS 2013 Proceedings. Paper 190. Retrieved on January 2015 from http://aisel.aisnet.org/pacis2013/190.

## STUDENTS' PERFORMANCE MONITORING AND EVALUATION SYSTEM OF ST. PAUL UNIVERSITY PHILIPPINES

## CARLOS L. BABARAN, JR., MIT

#### **ABSTRACT**

The descriptive survey design was used to assess the effectiveness of the proposed Systems Development Project of St. Paul University Philippines. The study involved 355 participants consisting of college students and faculty members, selected at random from the different schools of St. Paul University Philippines. Pre-survey and post survey questionnaires were used for data gathering tools. Frequency and Percentage Count and Weighted Mean were employed for data analysis. From the analysis of the data gathered, the following findings were established: (1) Prior to the conduct of the pilot testing, the assessment of the student participants on the current system is "Poor" regarding viewing of grades and passing of requirements. However, after the pilot testing, the same participants assessed the proposed system as "Very Satisfactory." This means the proposed system is more efficient regarding monitoring and evaluation of students' performance. (2) The assessment of the faculty and students after the pilot testing on the proposed system in terms of Students' Performance Monitoring and Evaluation System is "Very High." This finding implies that through the proposed system, supervision and evaluation of students' performance could be better facilitated. (3) Thus, it could produce more reliable and accurate information. From the findings, it was concluded that compared to the current system of monitoring and evaluation transaction of students' performance, the proposed system is more efficient and more reliable in facilitating the control and assessment of operations and processes of students' performance.

**Keywords:** Student performance monitoring, evaluation system, St. Paul University Philippines

#### INTRODUCTION

Management Information Systems (MIS) are computer systems that direct business and organize operations or files. It takes on the role that a human does by replacing a human with a computer. This means that tasks that need to be done can be done in an easier, faster and a more related matter. These systems are becoming extremely popular in today's businesses and offices. On-line enrollment system, for example, eliminates the burden of students to fall in line to pay their fees and to get their subjects; as likened to the OSIRIS computer system which St. Paul University Philippines is using. It enables the students to have access to the enrollment system in their homes or wherever the internet access is available. It also facilitates in keeping track of the records, transactions, and other activities of the students regarding the enrollment. Such systems provide businesses and educational institutions with fast and innovative services that aid the process of business development. Today, not all students have the same ability and skills to learn a certain subject. Students may have different background and knowledge for a topic that may affect their learning style. Some students need more explanations than the others. With the advent of technology, the researcher will come up with a Web Application that would help the teachers and students of School of Information Technology and Engineering in submitting, reviewing and checking of assignments online so that students' performance can be easily monitored. Based on the experiences and observations of the researcher, it is a tedious work for the teachers to collect massive projects from the students manually. It also consumes a significant amount of space in the teacher's table as well as time in scoring, thereby affecting the grade submission period by the teacher as well as the verification period by the Associate Deans, Deans, and the University Registrar. Once the proposed system is materialized, then the problems will be eliminated. All submitted projects will be stored in the system's server and will be automatically downloaded to the teacher's computer via Dropbox API. Hence, it is for this reason that the researcher conducts this study to come up with a proposed system which will evaluate and monitor students' performance in a subject. Moreover, the said proposed system will address and enhance the processing of the current system. Through this system, teachers can easily create and print grading sheets. Student grades will automatically be posted to their accounts so that they will be updated with their performances every semester.

### **Conceptual Framework**

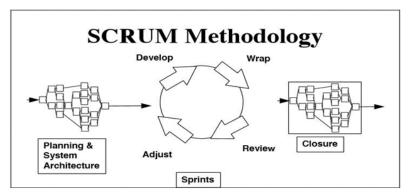


Figure 1. The SCRUM Model

The developed system followed the SCRUM process. This follows a continuous improvement cycle, exposing flaws faster and reducing waste. The goal is achieved faster since releases arrive at the client more frequently. The process started by defining the requirements, gathering data, and at the same time, initiating the project. Then a series of development, integration, and testing follows until a working system is achieved. The developers record and incorporate the changes and then back to the development process. The cycle is repeated improving the system after each release until the goal is achieved. The first and last phases (Planning and Closure) consist of defined processes, where all processes, inputs, and outputs are transparent. The ability of how to do these processes is evident. The flow is linear, with some iteration in the planning phase. The researcher defined the following inputs: (1) Survey results of the problems encountered in submitting, reviewing & checking of assignments, (2) Survey results of the problems experienced in the existing grading system, (3) Policies and procedures in submission of grades, (4) User Requirements, and (5) Development Tools and Techniques. The Sprint phase is an empirical process. Many of the processes in the sprint phase are unidentified or uncontrolled. It is treated as a black box that requires external regulations. Accordingly, laws, including risk management, are put on iteration of the Sprint phase to avoid chaos while maximizing flexibility. Sprints are nonlinear and flexible. Where available, specific process knowledge is used; otherwise, implied knowledge and trial and error is used to build process knowledge. Sprints are used to regulate the outcome. The output is open to the environment until the Closure phase. The deliverable output can be changed at any time during the Planning and Sprint phases of the project. The project remains open to environmental complexity, including competitiveness, time, quality, and financial pressures, throughout these phases. Lastly, the deliverable output is determined during the project based on the environment. Thus, the final output of this research is Student Performance Monitoring and Information System of St. Paul University Philippines.

#### Statement of the Problem

The study aimed to develop and evaluate Student Performance Monitoring and Evaluation System of St. Paul University Philippines.

Specifically, it sought to answer the following questions:

- 1. What is the assessment of the faculty participants on the current system in terms of the following:
  - a. Grading system:
    - 1.a.1 collecting and recording of scores;
    - 1.a.2 computation of grades;
    - 1.a.3 printing of grading sheets;
    - 1.a.4 submission of grades to the associate dean/dean;
    - 1.a.5 verification of grades; and
    - 1.a.6 encoding of grades?
  - b. Assignment / Project Managing:
    - 1.b.1 Collecting;
    - 1.b.2 Checking;
    - 1.b.3 Recording; and
    - 1.b.4 Feedbacking of results?
- 2. What is the assessment of the student participants on the current system in terms of the following:
  - 2.a.1 Viewing of grades; and
  - 2.a.2 Submission of requirements?
- 3. What measures can be done to improve the current system?

- 4. What is the assessment of the faculty participants on the proposed system in terms of the following:
  - a. Grading system:
    - 4.a.1 collecting and recording of scores;
    - 4.a.2 computation of grades;
    - 4.a.3 printing of grading sheets;
    - 4.a.4 submission of grades to the associate dean/dean;
    - 4.a.5 verification of grades; and
    - 4.a.6 encoding of grades?
  - b. Assignment / Project Managing:
    - 4.b.1 Collecting;
    - 4.b.2 Checking;
    - 4.b.3 Recording; and
    - 4.b.4 Feed backing of results?
- 5. What is the assessment of the student participants on the proposed system in terms of the following:
  - 5.a.1 Viewing of grades; and
  - 5.a.2 Submission of requirements?
- 6. What is the degree of effectiveness of the proposed Student Performance and Monitoring System of St. Paul University Philippines in terms of the following software characteristics / capabilities:
  - 6.1 Functionality;
  - 6.2 Reliability;
  - 6.3 Usability;
  - 6.4 Maintainability; and
  - 6.5 Portability?

#### METHODOLOGY

## **Research Design**

The research design employed in this study is the descriptive design. It describes the assessment of the participants regarding the existing Microsoft Excel-based grading system and the proposed Web-based Learning Support System. Systems Development is used for the design and implementation of the proposed system.

### Participants of the Study

The participants of the study involved both college faculty and students of the second semester for the academic year 2014-2015 which composed of the following:

Participants	Frequency	Percentage
SAB Students	55	15.49
SASTE Students	137	38.59
SHS Students	29	8.17
SITE Students	116	32.68
SOM Students	3	0.85
Faculty	15	4.22
Total	355	100.00

The 355 participants consisting of college students and faculty members, selected at random from the different schools of St. Paul University Philippines. Multi-stage sampling technique and Slovin's formula were used to proportionally allocate the participants per year level per school as well as college faculty of St. Paul University Philippines.

#### Instrumentation

There are two sets of questionnaires to address the specific questions in this study such as pre-survey and post-survey questionnaires. A pre-survey questionnaire was used to assess the degree of seriousness of the problems encountered in the current system while the post-survey questionnaire was used to determine the extent of effectiveness of the proposed system regarding software characteristics/ capabilities.

## **Data Gathering Procedure**

Before embarking on the writing of the research proposal, the researcher consulted some teachers and the dean of the School of Information and Engineering. Recognizing the potential contribution of the study to the development of the department, the dean, and fellow

teachers were asked to cooperate with the interview and gave permission to proceed with the proposed system.

The conduct of the pre-survey involved the gathering of information about the current system and the developed proposed system. While, on the post-survey, it included the evaluation of the effectiveness of the proposed system.

### **Data Analysis**

The data were tallied and analyzed according to the objectives of the study and were treated using descriptive statistics.

- 1. Frequency and Percentage Count. This was used to obtain the participants' readiness and willingness to use the proposed system.
- 2. Weighted Mean. This was used as a statistical measure to compute the average of the obtained data.

#### **RESULTS AND DISCUSSION**

## Summary of the Assessment of the Faculty-Participants' responses on the Current System

Results revealed that the assessment of the faculty participants on the current system ranges from "Poor" with an overall mean of 2.14. As evidence, Promptness in recording of scores, Checking and verification of recorded scores, Completion of scores, Promptness in submitting grading sheets, Returning of signed grading sheets, Promptness in encoding of grades, Promptness of collecting of assignments and projects, Checking and verification of assignments and projects and Completion of assignments and projects

## Summary of the Assessment of the Student-Participants' responses on the Current System

Results revealed that the current system is "Poor" with an overall mean of 2.13, while they were satisfied on the accuracy of inputs. As

a result, the researcher developed a proposed Student Performance Monitoring and Evaluation System of St. Paul University Philippines (SPMES) and presented it to the participants for testing.

## Summary of the Assessment of the Faculty-Participants' responses on the Proposed System

Results revealed that the proposed system is "very satisfactory" with an overall mean of 3.65. This implies that the proposed system could better facilitate in terms of monitoring and evaluating students' performance

## Summary of the Assessment of the Student-Participants' responses on the Proposed System

Results unveiled that the assessment of student participants on issues of viewing of grades and passing of requirements is "Very Satisfactory" with an overall weighted mean of 3.98. This implies that the proposed system provided the features to facilitate better the processes involved in monitoring and evaluating of students' performance.

## Summary of the Assessment of the Faculty-Participants' responses on the Effectiveness of the Proposed System

Results unveiled that after the system testing, the proposed system is rated "Very Effective" on the aspects of functionality, reliability, usability, maintainability, and portability with an overall weighted mean of 4.51. This finding implies that the college faculty participants who have evaluated the proposed system have seen the desired features and were very satisfied with the processes demonstrated during the system testing. Moreover, the proposed system compared with the current system is more efficient because it could better facilitate the needed transactions and processes in monitoring and evaluation of student's performance.

## Summary of the Assessment of the Student-Participants' responses on the Effectiveness of the Proposed System

Results showed that after the system testing, the proposed system is

rated "Very Effective" on the aspects of functionality, reliability, usability, maintainability, and portability with an overall weighted mean of 4.49. This finding implies that the college student participants who have evaluated the proposed system have seen the desired features and were satisfied with the processes demonstrated during the system testing. Moreover, the proposed system compared with the current system is more efficient because it could better facilitate the needed transactions and processes in monitoring and evaluation of student's performance.

#### CONCLUSION

The researcher concluded that compared to the current system of control and assessment operation of student's performance, the proposed system is more efficient and more reliable in facilitating the monitoring and evaluation of the transactions and processes of student's performance.

#### RECOMMENDATIONS

Based on the findings and conclusion of the study, the following recommendations are derived:

Faculty and students may be encouraged to adopt the proposed system to ensure its reliability, functionality, usability, maintainability and portability.

The administrator may continuously support the use of the proposed system for maintenance.

The researcher may present the proposed systems to the administrators of the St. Paul University Philippines for the approval of the implementation of the scheme.

A stand-alone server may be provided to sustain the utilization of the proposed system.

An additional module for the registrar's account may be added for direct validation of grades as enhancement of the proposed system.

Training may be conducted to all the end users on the usage of the proposed system.

The utilization of the proposed system may be implemented to enhance the current system.

## References

- Boggs, S., Shore, M., & Shore, J. (2004). *Using e-Learning Platforms for Mastery Learning in Developmental Mathematics Courses*. Retrieve from http://eric.ed.gov/?id=EJ720425.
- Falvo, D. & Johnson, B. (2007). The Use of Learning Management Systems in the United States. Retrieved from http://eric.ed.gov/?id=EJ774630.
- Falvo, D. A., & Johnson, B. F. (March 2007). *The Use of Learning Management Systems in the United States*. Retrieve from http://eric.ed.gov/?id=EJ774630.
- Ozkan, S., Koseler, R., & Baykal, N. (2009). Evaluating learning management systems. Transforming Government: People, Process and Policy. http://dx.doi.org/10.1108/17506160910960522.
- Unal, Z. & Unal A. (2011). Evaluating and Comparing the Usability of Web-based Course Management Systems. Retrieve from https://eric.ed.gov/?id=EJ930355.

## CORPORATE SOCIAL RESPOSIBILITY OF FRANCHISE-BASED FIRMS IN TUGUEGARAO CITY

## **RUFO B. TUDDAO, MAED**

#### **ABSTRACT**

This study was conducted to determine the Corporate Social Responsibility (CSR) of franchise-based firms in Tuquegarao City. Specifically, it sought to determine the extent of implementation on the CSR of the franchise-based firms in the areas of environment, economic, and social. It also delved on the benefits that franchise-based firms have received and the problems encountered in implementing CSR. Descriptive research design was employed using survey questionnaire in gathering the data. There were a total of thirty-five (35) participants in the study comprising of the owners and managers of the franchise-based firms. Frequency counts, percentages, means, t- test and analysis of variance were used for statistical analysis. Results showed that the participants implemented CSR in environment to a great extent and implemented to a moderate extent in the areas of economic and social. Results also showed that there was no significant difference on the extent of implementation of CSR in the above mentioned areas when grouped according to profile of the participants and franchise-based firms. The primary benefits received in implementing CSR as perceived by the participants were customer awareness and loyalty in their business. Results also revealed that the franchise-based firms lack support from some government and non government institutions in implementing their corporate social responsibility-based projects. The researchers recommend that the franchise-based firms should maintain or strengthen their CSR to ensure its active compliance with the spirit of the law. It is also recommended that the government and non-government institutions should support the CSR based-projects of these franchise-based firms.

**Keywords:** Corporate social responsibility, social aspect, economic aspect, environmental aspect

#### INTRODUCTION

Business ethics calls for the integration of Corporate Social Responsibility (CSR) practices as an important part of every firm and industry's priorities. It highlights the need of every business owner to be concerned with what is happening in our society and what contributions they may offer with regards to public interest.

Corporate Social Responsibility (CSR) activities are intended to improve the overall social welfare further than the economic, technical, and legal interests of a firm and its stakeholders (McWilliams and Siegel, 2001). Consequently, CSR has attracted worldwide attention and acquired a new resonance in the global economy. Heightened interest in CSR has stemmed from the advent of globalization and international trade, which have resulted to increased business complexity and new demands for enhanced transparency and corporate citizenship.

The high ranking of CSR practices on research agendas (Greenfield, 2004) appears to be reflected in theoretical and managerial discussions that argue 'that not only is doing good the right thing to do, but it also leads to doing better' (Bhattacharya, 2004). Consequently, CSR has moved from ideology to reality, and many consider it necessary for organizations to define their roles in society and apply social and ethical standards to their businesses (Lichtenstein, 2004).

On the other hand, it must be taken into consideration that every company has limited resources with which to pursue its mission. CSR initiatives could possibly lead to the unintentional neglect of the responsibilities, to which company leaders have already committed to, by virtue of their roles: advancing the interests of the organization.

For the purpose of this study, franchising is defined as a form of marketing and distribution in which the franchisor grants to an individual or company (the franchisee) the right to run a business selling a product or providing a service under the franchisor's business format and identified by the franchisor's trade mark or brand. Franchising is a comprehensive business relationship, not just a buyer-seller relationship. From a franchisor's point of view, social responsibility has several benefits for things such as brand awareness and increased market opportunities.

It is in this context, that this study evaluates how franchise-based firms implement Corporate Social Responsibility in their businesses. Subsequently, it also deals on how Corporate Social Responsibility programs are beneficial on the Local Franchise-based firm owner's part.

#### Statement of the Problem

This study aimed to determine the extent of implementation of Corporate Social Responsibility (CSR) practices of franchise-based firms in the city of Tuguegarao. Specifically, it sought to answer the following:

- 1. What is the profile of the owners of franchise-based firms in Tuguegarao City as to:
  - 1.1 age;
  - 1.2 gender;
  - 1.3 status; and
  - 1.4 educational attainment?
- 2. What is the profile of the business entity in terms of:
  - 2.1 nature of the business;
  - 2.2 years of operation; and
  - 2.3 capital budget allotted for CSR-related activities?
- 3. What is the participants' extent of implementation of Corporate Social Responsibility Practices of local franchise-based firms in the areas of:
  - 3.1 environmental;
  - 3.2 economic; and
  - 3.3 social?
- 4. Is there a significant difference on the participants' extent of implementation of Corporate Social Responsibility Practices when grouped according to profile variables?
- 5. What are the benefits derived by the participants from their Corporate Social Responsibility practices?
- 6. What are the problems encountered by the participants in the implementation of Corporate Social Responsibility practices?

#### **METHODOLOGY**

### **Research Design**

The descriptive research design, specifically the descriptive survey method, was used in the study. It dealt on assessing the extent of implementation of Corporate Social Responsibility (CSR) practices of franchise-based firms in the city of Tuguegarao in the following areas: environment, social, and economic.

### Participants of the Study

A total of thirty – five (35) owners and managers of franchise-based firms in Tuguegarao City were the participants of the study. Purposive random sampling was applied in selecting the participants of the study.

#### Instrumentation

Data were gathered using a survey questionnaire which was personally administered by the researcher to the participants of the study. The questionnaire which was subjected to further improvement and validation, consisted of the following parts: Part I elicited the participants' profile including age, gender, status and educational attainment; Part II elicited the franchise-based firms' profile including nature of the business, years of operation, and capital budget; Part III drew the extent of implementation of corporate social responsibility practices of franchise-based firms; Part IV dwelt on the benefits received by the firms as they implement CSR practice, and Part V tackled the problems encountered by franchise-based firms.

## **Data Gathering Procedures**

Approval was sought from the Dean of the School of Accountancy and Business to allow the researchers to conduct the study. A letter of request and permission pertaining to the conduct of the study was given to the managers or owners of franchise-based firms.

## **Data Analysis**

The following statistical tools were used to analyze the data gathered:

- 1. Frequency Count and Percentage Distribution. This was used to determine the profile of the participants and the business.
- 2. Weighted Mean. This was used to determine the extent of implementation of CSR practices franchise-based firms. The following Likert Scale was used to understand further the value of the weighted mean.

Scale	<b>Descriptive Interpretation</b>
4.20 - 5.00	Very Great Extent
3.40 - 4.00	Great Extent
2.60 - 3.25	Moderate Extent
1.80 - 2.49	Little Extent
1.00 - 1.74	Very Little Extent

- T- test or Analysis of Variance (ANOVA). This was used to determine
  if there exists a significant difference on the participants' perception on
  CSR practices of franchise-based firms when grouped according to
  profile variables.
- 4. Rank distribution. This was used to determine the benefits derived by the participants from their Corporate Social Responsibility practices and the problems encountered by the participants in the implementation of Corporate Social Responsibility practices.

#### RESULTS AND DISCUSSION

## **Profile of the Participants**

Majority of the participants are female (54.30%), married (54.30%) and young (65.70%). All of the participants are college graduate.

### Profile of the Franchise-based Firms

All of the franchise-based firms are corporations. Majority of these franchise—based firms are in the business industry for less than 10 years ((97.10%) and allotted capital budget for CSR practices amounting 50,000 pesos and below (88.60%).

## Participants' extent of implementation on Corporate Social Responsibility Practices of Local Franchise-based firms

Results showed that the participants implemented environmental CSR practices to a great extent (2.85) and implemented to a moderate extent in the economic (2.41) and social (2.23) areas.

# Significant difference on the participants' extent of implementation of Corporate Social Responsibility Practices when grouped according to profile variables

Age. There is no significant difference on the participants' extent of implementation of Corporate Social Responsibility when grouped according to age.

*Gender*. There is no significant difference on the participants' extent of implementation of Corporate Social Responsibility when grouped according to gender.

*Civil Status*. There is no significant difference on the participants' extent of implementation of Corporate Social Responsibility when grouped according to civil status.

*Years of Operation.* There is no significant difference on the participants' extent of implementation of Corporate Social Responsibility when grouped according to years of operation.

Capital Budget. There is a significant difference on the participants' extent of implementation of Corporate Social Responsibility when grouped according to Capital budget.

## Benefits derived by the participants from their Corporate Social Responsibility practices

The primary benefits received in implementing CSR as perceived by the participants were customer awareness and loyalty in their business (91.43%) and their products were recognized and accepted (91.43%).

## Problems encountered by the participants in the implementation of Corporate Social Responsibility practices

The top three primary problems encountered by participants when exercising their Corporate Social Responsibility practices are "Our firm lacks support from non-government institutions as it develops its Corporate Social Responsibility-based projects" (45.71%), "Our firm lacks time in the preparations of its Corporate Social Responsibility-based projects" (31.43%), "Our firm lacks cooperation among members in its movement to incorporate Corporate Social Responsibility in its every endeavor" (22.86%).

#### **CONCLUSION**

The following are the conclusions derived from the results of the study:

- 1. That the participants are young and fresh in the franchise business industry.
- 2. That the franchise—based firms comply with the government rules and regulations as their products guarantee safety and promote environmental stewardship. Using recyclable and eco-friendly materials, the firm lessens the pollution caused by potential wastes produced from the products they introduce to the market.
- 3. That the franchise—based firms make sure that they compete in the market by solely succeeding on the merits of the goods and services they give. Managers and owners contribute to the continuous improvement of the economy by following the Suggested Retail Price given by government agencies. Furthermore, these franchise-based firms offer products and

services at a fixed price thus exemplifying fairness with regards to business competition. This shows how the price of their products and services correspond to its quality.

4. That the franchise – based firms cater not only to customers' needs but employees' needs as well, they show how they value the workforce of their firm. The sense of appreciation and belongingness is given importance as they do things in favor of their employees. In return, the employees render excellent service in terms of customer satisfaction. The extent of implementation of the different corporate social responsibility practices of franchise-based firms depends upon the type of franchise being established.

#### RECOMMENDATIONS

Based on the findings and conclusion of the study, the following recommendations are drawn:

That the participants may pursue graduate studies and attendance to relevant trainings and seminars that will improve further their skills and to be more engage in implementing CSR practices.

Economic and Social CSR practices may be given more attention by the managers and owners of the firms in order to strengthen its implementation.

The managers and owners may continuously promote CSR practices to encourage other firms to practice the same.

The managers and owners may continue to consider the welfare of their employees as a part of their CSR practices.

The managers and owners may strengthen employees' engagement in implementing CSR practices of the firm.

Government and Non-government institutions may support franchise-based firms in their CSR practices.

More recognition may be given to franchise-based firms with strong implementation of CSR practices in order to encourage them to do more for the upliftment of the society as a whole.

### References

- Bhattacharya, C. A. (2004). *Doing better at doing good: when, why, and how consumers respond to corporate social responsibility*. California Management Review , pp. 9-24.
- Brammer, S., & Millington, A. (2005). *Corporate reputation and philanthropy: An empirical analysis*. Journal of Business Ethics, 61: pp. 29–44.
- Entreprenuer (2013). *Corporate Social Responsibility: Doing well by doing good*. Retrieved on August 28, 2013 from https://www.entrepreneur.com/article/236549.
- Franchise Direct (2013). Franchising And Corporate Social Responsibility. Retrieved on August 13, 2013 from http://www.franchisedirect.co.uk/information/guidetobuyingafranchise/franchisingandcorporate social responsibility/52/1480/
- Fransmart Franchise Development Co. (2013). Socially responsible franchise. Retrieved on September 16, 2013 from http://fransmart.com/social-responsibility.html
- Godfrey, P. C. (2005). The relationship between corporate philanthropy and shareholder wealth: A risk management perspective. Academy of Management Review 30(4): pp. 777–798.
- Greenfield, W. (2004). *In the Name of Corporate Social Responsibility*. Business Horizons, pp. 19-28.
- Kotler, P., & Lee, N. (2004). Best of Breed: When it Comes to Gaining a Market Edge While Supporting a Social Cause, Corporate Social Marketing Leads the Pack. Stanford Social Innovation Review, 2004.

- Lichtenstein, D. D. (2004). The effect of corporate social responsibility on customer donations to corporate-supported nonprofits. Journal of Marketing, pp. 16-32.
- McWilliams, A., & Siegel, D. (1997). *The role of money managers in assessing corporate social responsibility research*. Journal of Investing, 6(4): pp. 98–107.
- Mohr, L.A., Webb, D.J., & Harris, K.E. (2001). *Doconsumers expect companies to be socially responsible? The impact of corporate social responsibility on buying behavior*. Journal of Consumer Affairs, 35: pp. 45-72.
- Rindova, V. P. & Fombrun, C. J. (1999). Constructing competitive advantage: the role of firm–constituent interactions. Strategic Management Journal, 20(8): pp.691-710.

# ASEAN CUISINE PREFERENCES OF HOTEL, RESTAURANT AND TOURISM MANAGEMENT STUDENTS OF ST. PAUL UNIVERSITY PHILIPPINES

# GLEN C. CAGURANGAN, MSHM KIMBERLEY DC. MATAMMU, MSHM AMIENEL C. PAYOYO, MSHM

#### **ABSTRACT**

This study investigated on the food preferences of Paulinian students on ASEAN cuisine. Participants' food preferences were further examined with respect to the food specific elements such as aroma, aesthetic appeal, taste and texture. The study further probed on the participants' reasons for their food preferences. Comparative analysis was undertaken to determine whether there exists significant differences on students' food preferences when they are grouped according to gender. The study used the descriptive comparative research design which covered 120 HRTM student participants that were enrolled in the ASEAN cuisine subject during the first semester of the academic year 2014-2015. Participants involved 48 males and 72 females. Informed consent was obtained from the participants prior to data gathering. Data were obtained using the questionnaire which was further substantiated by a follow up interview. Generally, the results revealed that as to aroma, aesthetic appeal, taste and texture, the most preferred by the participants was the Filipino Cuisine. Although in some of these specific elements, cuisine in other countries was most preferred. It was found out that food preferences along the specified elements do not differ significantly among gender groups except for taste and texture. Based on their ranking, the Filipino cuisine ranked first, the Thai, Singaporean and Vietnamese cuisine ranked second and the Indonesian cuisine ranked third. Reasons for their preferences were likewise unveiled in the study.

**Keywords:** ASEAN cuisine, food preferences, ASEAN menu, cuisine, food aesthetic appeal

#### INTRODUCTION

According to Food writer Mark Kurlansky "Food is about agriculture, about ecology, about man's relationship with nature, about the climate, about nation-building, cultural struggles, friends and enemies, alliances, wars, and religion. It is about memory and tradition."

"We are what we eat" is a common saying among people who study culinary. Cookery is not chemistry. It is an art. It requires instinct and taste rather than exact measurements. This study examines food preferences and how such preferences are exercised.

The act of consuming food represents a basic locus of identity, of conformity, and of resistance. Even those who appear otherwise powerless exercise choices in food preparation, presentation and consumption. Food is a significant means to penetrate into another culture as it allows an individual to experience the 'Other' on a sensory level, and not just an intellectual one. The growth of eating out as a form of consumption and the market forces of globalization have made the food products and cuisines from all over the world more accessible. This premise that the researcher would like to access ASEAN Cuisine as food preferences of HRTM students of St. Paul University Philippines, is to determine their knowledge in terms of the different food presentation, aesthetic appeal and taste of the ASEAN Cuisine.

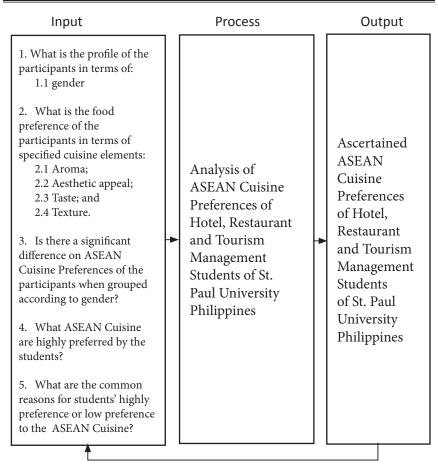
Using the Food Choice Questionnaire (FCQ) (Steptoe et al., 1995) researchers have revealed that several factors such as health, price, convenience, mood, sensory appeal, natural content, weight control, familiarity and ethical concerns affect our food choices (Steptoe et al., 1995). According to Grunert (2002), food choices are framed in terms of our quality expectations before and after our purchase of a food product. Research has shown that apart from price, sensory appeal is one of the most important factors influencing food choice (Costell et al., 2010; Drewnowski, 1997; Scheibehenne et al., 2007; Steptoe et al., 1995). In the FCQ sensory appeal covers whether the food smells nice, looks nice, has a pleasant texture and tastes good (Steptoe et al., 1995). What is interesting is that not only do our sensory or food preferences guide food choice, but a great variety of other factors also contribute to our final

choice of food. According to Costell et al. (2010), consumers' responses to food products are determined by four different components. First, consumers perceive the sensory characteristics of a product. Second, the consumer has a general response to a product, which is an affective component. Third, the consumer applies a cognitive component which is related to the information the consumer has about the product and to the consumers' attitudes and beliefs. Fourth, the response is affected by a behavioral component which involves the persons' intentions or actions for future behavior (Costell et al., 2010). These components are of importance and will be discussed further throughout the paper. A central argument however, is that consumers' responses to food products are further affected by the social milieu or culture we are surrounded by. Whether considered a fifth component in the reasoning above, or treated as a part of the cognitive component, the social milieu we live in is not only important in response to food products but also of importance when it comes to the development of our food preferences. One might claim that the consumption of food can only be fully understood in a social context (Rozin, 1996). Since people grow up in different societies all over the world, we can see distinct differences in food traditions and cuisines (Montanari, 2006). In other words different demographic, sociocultural and economic factors modulate the connection between taste responsiveness to food and our choices of food (Drewnowski, 1997). This entails the assumption that people from the same culture or region of the world would have been affected in thesame way culturally and therefore have similar food preferences compared to people from other parts of the world. Further, in the contemporary world it is common for people to eat the same food or ingredients all over the world. However, due to differences in weather and soil conditions, it does not necessarily mean that foods are prepared in the same way or that they taste the same across geographical regions (Risvik et al., 2006). Following from the previous discussion, sensory preferences alone do not determine our food choice. As seen with the FCQ, several other factors determine what we choose to eat. The interesting thing is how the individual factors (biological and psychological) and the cultural or socio-cultural factors interact to create people's unique sensory food preferences. This paper combines marketing and consumer research literature with sensory and food science literature to provide an interdisciplinary picture of the aforementioned issues. In this, some central questions are: what biological or inheritable factors affect our food preferences; and what psychological factors contribute to the formation of food preferences? Moreover, what cultural or social factors affect food preferences and what factors affect our food choices are also important issues to address. Finally, how we make food choices and how our food preferences affect or interact with them are also of particular interest. In order to answer these questions, the researchers initially elaborate on factors that cause differences or similarities in food preferences, focusing on thematic areas such as biological, psychological, cultural and societal factors. Secondly, the underlying reasons for consumers' food choice will be discussed. Then, the review will provide a brief discussion of the connection between food preferences and food choices. Finally, any lack of research focus within the areas of food preferences and food choices are suggested.

Personality characteristics also affect consumer perception and preferences for food (Jaeger et al., 1998). Private Body Consciousness (PBC) (Miller et al., 1981) is one such characteristic and previous studies have related PBC to food preference (Jaeger et al.,1998; Solheim & Lawless, 1996). PBC is an individual measure of inner body awareness and subjects might be classified as either high or low in PBC. The subjects are classified based on several factors such as sensitivity to changes in body temperature, internal tensions, heart rate, dryness of mouth and throat, and hunger sensations (Jaeger et al., 1998). PBC theory predicts that some people are more sensitive to changes in their body than others, and this has been successfully linked to different aspects of human behavior including reference for sensory characteristics (Jaeger et al.,1998). Specifically, Jaeger et al.1998 showed that people who were high in PBC were more likely to evaluate apple samples on the basis of sensory characteristics than people who were low in PBC. How consumers' react to information given about a food product (in this case cheddar cheese) has also been found to depend on whether they are high or low in PBC. High PBC increased the purchase probability when tasting was accompanied by correct information about fat content and price (Solheim & Lawless, 1996).

# **Research Paradigm**

The research illustrates the relationship of the three component input, process and output.



Feedback
Figure 1. Paradigm of the Study

As shown in the figure the input includes the profile of the participants, food preferences in terms of specified cuisine elements, and ASEAN Cuisine highly preferred by the students of St. Paul University Philippines. The process employed is the analysis of ASEAN Cuisine Preferences of Hotel, Restaurant and Tourism Management students of St. Paul University Philippines. The expected output is ascertained ASEAN Cuisine Preferences of Hotel, Restaurant and Tourism Management Students of St. Paul University Philippines.

#### Statement of the Problem

This study aimed to determine the ASEAN Cuisine Preferences of Hotel, Restaurant and Tourism Management Students of St. Paul University Philippines.

Purposely, the researchers sought to find answers to the following questions:

- 1. What is the profile of the participants in terms of gender?
- 2. What is the ASEAN cuisine preference of the participants in terms of aroma, aesthetic appeal, taste and texture?
- 3. Is there a significant difference on ASEAN Cuisine Preferences of the participants when grouped according to gender?
- 4. What ASEAN Cuisine is highly preferred by the students?
- 5. What are the common reasons for students' highly preference or low preference to the ASEAN Cuisine?

#### **METHODOLOGY**

# **Research Design**

The descriptive comparative research design, specifically the descriptive survey method was used to ascertain the ASEAN Cuisine Preferences of Hotel, Restaurant and Tourism Management Students of St. Paul University Philippines.

# **Participants of the Study**

The study covered 120 Bachelor of Science in Hotel, Restaurant and Tourism management (HRTM) student participants that were enrolled in the ASEAN cuisine subject during the first semester of the academic year 2014-2015 at St. Paul University Philippines. Participants involved 48 males and 72 females.

#### Instrumentation

Informed consent was obtained from the participants prior to data gathering. Data were obtained using the questionnaire which was further substantiated by a follow up interview.

#### **Data Gathering Procedures**

The questionnaire was used to gather information from the participants regarding their expressed ASEAN cuisine preferences.

Survey questionnaire was used to elicit the ASEAN cuisine preferences of the participants.

Upon the accomplishment of the questionnaire the researchers gathered and retrieved the entire questionnaires and were tabulated, analyzed and interpreted to arrive at conclusion and recommendation.

#### **Data Analysis**

The following statistical tools were used to analyze the data gathered.

- 1. The Frequency Count and Percentage Distribution were used to present the gender profile of the participants.
- 2. Chi-Square. This was used to determine the significant difference of the ASEAN cuisine preferences of the participants when they are grouped according to gender.
- 3. Weighted Mean was used to determine the participants' level of preference on ASEAN Cuisine. Obtained means were interpreted using a 3-point scale.

# Arbitrary Scale:

Descriptive Interpretation
Most Preferred
Moderately Preferred
Less Preferred

#### **RESULTS AND DISCUSSION**

### **Profile of the Participants**

Majority (72) or 60 percent are female participants while 48 or 40 percent are male participants. This implies that there are more female than male participants.

# ASEAN cuisine preferences of the participants in terms of specified cuisine elements

On aroma, results showed that the Thai cuisine mean of 2.63, Filipino cuisine mean of 2.61 and Singaporean cuisine mean of 2.58 have the highest mean and they are the "most preferred" by the participants. Myanmar cuisine mean of 1.60 and Laos' cuisine mean of 1.40 have the lowest mean and they are "less preferred" by the participants. The overall mean of 2.06 revealed that as to aroma preference of the students, item "spices" is "likely preferred" by the participants. Item "pleasant flavor," Indonesia cuisine mean of 2.58, Vietnamese cuisine mean of 2.49 and Filipino cuisine mean of 2.58 have the highest mean and they are the "most preferred" by the participants. Thai cuisine mean of 1.60 has the lowest mean and it is "less preferred" by the participants. The overall mean of 2.05 revealed that as to aroma preference of the students, item "pleasant flavor" is "likely preferred."

As to spices, Laos' cuisine mean of 2.73 and Filipino cuisine mean of 2.58 have the highest mean and they are "most preferred" by the participants. Singaporean cuisine mean of 1.60 and Myanmar cuisine mean of 1.58 have the lowest mean and they are "less preferred" by the participants. The overall mean of 1.98 revealed that as to aesthetic appeal preferences of the students, item "shape" is "likely preferred" by the participants. Item "color", Malaysian cuisine mean of 2.69, Thai cuisine mean of 2.60 and Myanmar cuisine mean of 2.49 have the highest mean and they are "most preferred" by the participants. Singaporean cuisine mean of 1.60 and Vietnam cuisine mean of 1.58 have the lowest mean and they are "less preferred" by the participants. The overall mean of 2.12 revealed that as to aesthetic appeal preference of the students, item "color" is "likely preferred" by the participants. Item "food presentation",

Laos' cuisine mean of 2.60, Myanmar cuisine mean of 2.70 and Filipino cuisine mean of 2.75 have the highest mean and they are "most preferred" by the participants. Thai cuisine mean of 1.63 has the lowest mean and it is "less preferred" by the participants. The overall mean of 2.06 revealed that as to aesthetic appeal preference of the students, item "food presentation" is "likely preferred" by the participants.

With regard to taste preference of the students, item "salty", Vietnam cuisine mean of 2.48 and Malaysian cuisine mean of 2.60 have the highest mean and they are "most preferred" by the participants. Thai cuisine mean of 1.60 has the lowest mean and it is "less preferred" by the participants. The overall mean of 2.09 revealed that as to taste preference of the students, item "salty" is "likely preferred" by the participants. Item "sweet", Filipino cuisine mean of 2.48 and Malaysian cuisine mean of 2.70 have the highest mean and they are "most preferred" by the participants. Indonesian cuisine mean of 1.59 has the lowest mean and it is "less preferred" by the participants. The overall mean of 1.97 revealed that as to taste preference of the students, item "sweet" is "likely preferred" by the participants. Item "sour", Cambodian cuisine mean of 2.14 and Filipino cuisine mean of 2.16 have the highest mean and they are "most preferred" by the participants. Thai cuisine mean of 1.61 has the lowest mean and it is "less preferred" by the participants. The overall mean of 2.03 revealed that as to taste preference of the students item "sour" is "likely preferred" by the participants. Item "spicy", Thai cuisine mean of 2.65 and Indonesian cuisine mean of 2.75 have the highest mean and they are "most preferred" by the participants. Myanmar cuisine mean of 1.58 has the lowest mean and it is "less preferred" by the participants. The overall mean of 2.02 revealed that as to taste preference of the students, item "spicy" is "likely preferred" by the participants.

With regard to texture preference of the students, item "medium rare", Indonesian cuisine mean of 2.55 and Filipino cuisine mean of 2.56 have the highest mean and they are "most preferred" by the participants. Vietnamese cuisine mean of 1.58 and Laos cuisine mean of 1.50 have the lowest mean and they are "less preferred" by the participants. The overall mean of 1.92 revealed that as to taste preference of the students, item "medium rare" is "likely preferred" by the participants. Item "rare", Filipino cuisine mean of 2.58 has the highest mean and it is "most preferred" by

the participants. Vietnamese cuisine mean of 1.56 has the lowest mean and it is "less preferred" by the participants. The overall mean of 1.88 revealed that as to taste preference of the students, item "rare" is "likely preferred" by the participants. Item "well done", Thai cuisine mean of 2.61, Vietnamese cuisine mean of 2.66 and Malaysian cuisine mean of 2.74 have the highest mean and they are "most preferred" by the participants. Myanmar cuisine mean of 1.60 and Laos cuisine mean of 1.50 have the lowest mean and they are "less preferred" by the participants. The overall mean of 2.11 revealed that as to taste preference of the students, item "well done" is "likely preferred" by the participants. Item "over cooked", Filipino cuisine mean of 2.45 and Vietnamese cuisine mean of 2.60 have the highest mean and they are "most preferred" by the participants. Thai cuisine mean of 1.58 and Laos cuisine mean of 1.50 have the lowest mean and they are "less preferred" by the participants. The overall mean of 1.96 revealed that as to taste preference of the students, item "over cooked" is "likely preferred" by the participants.

# Chi-square Analysis on the Significant Difference on Students' Level of Preference on ASEAN Cuisine across Gender Groups

On Aroma, it was found out to have no significant difference in the students' level of preference on ASEAN cuisine across gender.

As to aesthetic appeal, there is no significant difference in the students' level of preference on ASEAN cuisine across gender.

In terms of taste (sweet and sour), it was found out to have no significant difference in the students' level of preference on ASEAN cuisine across gender. In contrast with, when it comes to saltiness of the food it was found out to have significant difference across gender.

With respect to texture (medium rare and rare) in the students' level of preference on ASEAN cuisine, it was found out to have a significant difference on gender. On the other hand, it was found out that in terms of texture (well-done and overcooked) there is no significant difference on gender.

### Like, Dislike, Rank and Reasons of ASEAN Cuisine as Preferences

Results showed the like, dislike, rank and reasons of the ASEAN cuisine preference of the participants the Filipino cuisine ranked first, Thai, Singaporean and Vietnamese cuisine were ranked second and the Indonesian cuisine ranked third it followed, while Cambodian cuisine rank eight as the last ASEAN cuisine preference by participants. The participants have common reasons in the ASEAN Cuisine as their preference. This implies that participants examine their highly preferred ASEAN cuisine. Filipino cuisine rank first as the most preferred cuisine among all Association of Southeast Asian Nations country.

#### CONCLUSION

Based on the findings of the study, the following conclusions are drawn:

Generally as to aroma, aesthetic appeal, taste and texture, the participants most preferred the Filipino Cuisine. Although in some of these specific elements, cuisine in other countries were most preferred. Based on their ranking, the Filipino cuisine ranked first, the Thai, Singaporean and Vietnamese cuisine were ranked second and the Indonesian cuisine ranked third. Reasons for their preferences were likewise unveiled in the findings. It was found out that food preferences along the specified elements do not differ significantly among gender groups except for taste and texture.

Students' preference to Filipino foods indicates that still Filipino cuisine is appealing for the participants. This is traded on the fact that they most prefer the aroma, aesthetic appeal, taste and texture of Filipino foods. Although in some of these specific elements, cuisine in other countries were most preferred. Male and female have the same food preference with respect to aroma, aesthetic appeal but not on taste and texture. Based on their ranking, the Filipino cuisine ranked first, the Thai, Singaporean and Vietnamese cuisine were ranked second and the Indonesian cuisine ranked third.

#### RECOMMENDATIONS

Based on the findings and conclusion of the study, the following recommendations are offered:

Results of the study shall be presented among international restaurant businesses to provide them with significant inputs on ASEAN food preferences.

Since the study only considered popular foods in each ASEAN country, it is further recommended that a parallel study be conducted to include other cuisine.

Further investigation to explore more of the food preferences by including other set of participants including foreigners.

### References

- Catharina, Y.W., Ang, K. L., & Huang, Y. W. (1999). Essentials of Asian Cuisine: Fundamentals and Favorite Recipes.
- New Asian Cuisine International Food (2006, January 1). Wine & Travel Writers Association.
- Thompson, F. E., & Byers, T. (1994). *Dietary assessment resource manual*. J Nutr 1994;124:22455–371.
- Tuorila, H., Cardello, A. V., & Lesher, L. L. (1994). *Antecedents and consequences of expectations related to fat-free and regular-fat foods*. Appetite 1994; 23:247–63.
- Willett, W. C., & Sampson, L. (1995). *Dietary assessment methods*. Proceedings of the second international conference. Am J Clin Nutr 1995;65(suppl): 10975–368S.





# St. Paul University Philippines

Tuguegarao City, Cagayan Valley 3500 www.spup.edu.ph Tel. Nos.: (+63)(78) 396-1987 to 1994

Fax No.: (+63)(78) 846-4305

MAKING A DIFFERENCE
GIOBBALLLY

# Accreditations:











ISO 9001:2008 Management System

