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A PUBLICATION ONCE EVERY THREE YEARS DEVOTED TO THE RESEARCH ACHIEVEMENTS AND THE SHARING OF BEST CLASSROOM PRACTICES AND ACADEMIC DISCUSSIONS OF THE FACULTY AND STUDENTS

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VOLUME 7, 2016-2018

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ABOUT THE COVER

Inspired by the concept of Footprints in the Sand, the cover design shows shoe prints overlapping on the floor. As the prints overlap they form the silhouette of a child's head. The concept tells the story of how educators come in and out of a student's life, but each time they leave a mark in the learner's life that help shape them as individuals.

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THE Educator



VOLUME 7, 2016-2018

FOREWORD

Research and publication are traditional hallmarks of Silliman University, an institution of higher learning. The Educator, a journal which captures the scholarly and literary works of the faculty of the College of Education, is proof of the culture of research that is inherent to this vibrant academic community. Since 1998, this journal serves as College of Education's digest of graduate theses and dissertation abstracts, and evolved as the official research publication of the College of Education Center for Excellence in Teacher Education (COETE).

A regular publication of once every three years, this volume contains researches of faculty members, and stimulating sharing and conversations of some life-changing experiences by three Junior High School faculty, who had the rare opportunity of representing the country in the United States and gain some rich international cultural, educational, leadership exposures.

As the college continues to provide a forum for intellectual and scholarly exchanges from among the circle of faculty and students through this journal, it hopes to significantly contribute to a sustained culture of research and to a pool of knowledge that are relevant to the twenty-first century learners. As an avenue for these scholarly exchanges, The Educator continues to engage its readers so that it can contribute to the development of the 4C's of twenty-first century learning: Critical thinking, Creativity, Collaboration and Communication. It is our hope that the readers would find the articles in this issue not only insightful but also enjoyable.

> Dr. Batchiba R. Lacdo-o Dean

EDITOR'S NOTES

Research is to see what everybody else has seen, and to think what nobody else has thought. - Albert Szent-Gyorgyi

Research can be intimidating, and writing up the research process can be exhausting. However, it is only when we re-examine what we see and view it like nobody else has that we uncover and discover how we could better ourselves as teachers, as individuals, as a collective community of learners. Research is enlightenment.

In this volume, we get a glimpse of these re-examinations and discovery through peer-reviewed articles, autoethnographic essays, as well as dissertations and thesis abstracts on various topics related to teaching and learning. These are presented in the three sections of this journal. The first section, *Reifications*, presents two peer reviewed research articles. The second, *Retrospection*, features teachers' voices as they reflected on experiences that impacted their teaching and learning practices. Finally, the third section, *Refractions*, contains the thesis and dissertation abstracts of graduate students at Silliman University College of Education Graduate Program.

In the first peer-reviewed article, *Determinants of LET Performance of BEEd, BSEd, and CPE Graduates at a Center of Excellence in Teacher Education,* Gina A. Fontejon-Bonior and Pablito A. de la Rama investigated the relationship between the Bachelor of Elementary Education (BEEd) and Bachelor of Secondary Education (BSEd) graduates' academic performance and their scores in the Licensure Examination for Teachers (LET), as well as the LET scores of Certificate of Professional Education holders in relation to the LET scores of takers who earned a BSEd degree in the same institution. This research was conducted to investigate how well the College of Education at Silliman University has prepared its graduates for the LET, and to identify areas that need to be strengthened to further enhance student preparation for the examination. Meanwhile, in the second peerreviewed research article, SU Junior High School Physics teacher Jessa Villalon Logronio and, University of San Carlos School of Education faculty Richard R. Jugar investigated the effect of guided use of computer simulation in a constructivist Bring Your Own Device (BYOD) learning environment in facilitating Grade VII students' conceptual understanding of kinematics graphs of motion in one dimension. The *Retrospection* section presents personal narratives of three faculty members of the SU Junior High School who were sent to the United States on three related programs: The International Leaders in Education Program (ILEP) participated in by Renelito C. Caballo in 2010; the Fulbright Foreign Language Teaching Assistants (FLTA) Program participated in by Bea Mara Lubaton Zamora in 2015; and the Young SouthEast Asian Leaders Initiative (YSEALI) Academic Fellowship with Hanz Denzil Villahermosa in 2017.

Finally, the *Refractions* section showcases three dissertation and fourteen thesis abstracts of graduate students of the College of Education who completed their doctorate and master's degree program in 2015-2018. These abstracts are meant to tease our curiosity on the researches that were conducted and to further read or investigate them.

Research is indeed seeing "what everybody else has seen," and thinking about the seen in ways that no one else ever did or could. This is a critical element in education because it is only when we uncover that we discover, and such discovery makes us understand ourselves better. This self-discovery is important for teachers because as Parker Palmer posited in his book, *The Courage to Teach*, "we teach who we are... [because] teaching holds a mirror to the soul.... When I do not know myself, I cannot know who my students are. I will see them through a glass darkly, in the shadows of my own unexamined life—and when I cannot see them clearly, I cannot teach them well."

We hope that the authors in this volume, most of whom have published their work for the first time, would inspire other novice researchers and budding writers to engage in this journey of self-discovery through research and publication. *The Educator* invites you to journey with us on your first attempt at "holding a mirror to the soul."

> Gina A. Fontejon-Bonior Editor-in-Chief

THE Educator

CONTENTS

5 FOREWORD

7 EDITOR'S NOTES

REIFICATIONS: PEER-REVIEWED RESEARCH ARTICLES

- 17 DETERMINANTS OF LET PERFORMANCE OF BEED, BSED, AND CPE GRADUATES OF A CENTER OF EXCELLENCE IN TEACHER EDUCATION Fontejon-Bonior, G. A., & de la Rama, P.
- 39 GUIDED USE OF COMPUTER SIMULATION IN A CONSTRUCTIVIST BRING YOUR OWN DEVICE (BYOD) LEARNING ENVIRONMENT IN FACILITATING STUDENTS' CONCEPTUAL UNDERSTANDING OF KINEMATICS GRAPHS

Logronio, J. V., & Jugar, R.

RETROSPECTION: VOICES FROM THE CLASSROOM

- **59 WHAT TO DO IF THE AIRWOLF DOESN'T FLY** Caballo, R.
- 63 INTO THE HEART OF AMERICA: A TRAVELOGUE OF DREAMS, MEMORIES, AND EPIPHANIES Villahermosa, H. D.
- 69 WHEN EXPECTATIONS MEET REALITY: MY FULBRIGHT FOREIGN LANGUAGE TEACHING ASSISTANTS (FLTA) EXPERIENCE Zamora, B. M.

REFRACTIONS: THESIS AND DISSERTATION ABSTRACTS

THESIS ABSTRACTS

75 ASSESSMENT OF TEACHING COMPETENCIES OF FACULTY OF SILLIMAN UNIVERSITY JUNIOR HIGH SCHOOL

Aranas, P. (2017)

79 EMOTIONAL INTELLIGENCE AND ACADEMIC ACHIEVEMENT OF WORKING STUDENTS AT FOUNDATION UNIVERSITY: A BASIS FOR A PSYCHOSOCIAL DEVELOPMENT PROGRAM

Baena, J. V. (2018)

81 CAREER PATH ASPIRATIONS OF CHILDREN AND OF PARENTS FOR THEIR CHILDREN IN UPLAND AND COASTAL HOUSEHOLDS: BASIS FOR SENIOR HIGH SCHOOL CURRICULUM

Banot - Banabana, A. (2016)

- 83 STUDENT TARDINESS IN RAMON TEVES PASTOR MEMORIAL -DUMAGUETE SCIENCE HIGH SCHOOL FOR EDUCATION PLANNING Chua, K. L. (2016)
- PERCEPTION OF CAREER PREFERENCES OF GRADE 9 STUDENTS 85 IN RELATION TO THE PERCEPTIONS OF TEACHERS AND PARENTS OF SILLIMAN UNIVERSITY: A PROPOSED CAREER DEVELOPMENT PROGRAM

Demerre – Nacu, M. (2015)

87 DETERMINANTS OF THE EMPLOYABILITY OF THE TECHNICAL VOCATIONAL GRADUATES OF METRO DUMAGUETE COLLEGE: A BASIS FOR A CAREER GUIDANCE PROGRAM

De Mira, A. (2016)

89 PERCEIVED PARENTING STYLE AND BULLYING EXPERIENCE OF GRADE SIX PUPILS IN DUMAGUETE CITY: A BASIS FOR A PROPOSED ANTI - BULLYING PROGRAM

Gestupa, E. (2018)

91 SOPHOMORE STUDENTS' PROFILE AND ACADEMIC PERFORMANCE: TOWARDS A PROPOSED GUIDANCE ENRICHMENT PROGRAM

Gio, A. (2015)

93 **CORRELATES OF SELF – ESTEEM AND TEACHING PERFORMANCE** OF THE PUBLIC JUNIOR HIGH SCHOOL TEACHERS IN THE CITY DIVISION OF DUMAGUETE

Olmillo, A. (2017)

97 MOBILE LEARNING LANDSCAPE OF PRIVATE SENIOR HIGH SCHOOLS IN NEGROS ORIENTAL: A BASIS FOR THE DEVELOPMENT **OF A TRAINING PLAN**

Quinamot – Arcelo, A. (2018)

- 99 KNOWLEDGE AND MANAGEMENT OF BULLYING AMONG FACULTY AND STAFF OF THE ELEMENTARY DEPARTMENT: TOWARDS THE DEVELOPMENT OF AN ANTI - BULLYING PROGRAM Remollo, R. (2015)
- 101 PERCEIVED PARENTING STYLE AND SELF - CONCEPT OF STUDENTS AT NEGROS ORIENTAL STATE UNIVERSITY: A BASIS FOR AN ENHANCED GUIDANCE PROGRAM

Reyes, A. (2018)

103 EFFICACY BELIEF AND PERCEIVE RELEVANCE OF CHARACTER EDUCATION AMONG TEACHERS OF PRIVATE EARLY CHILDHOOD SCHOOLS IN JAKARTA

Sibuea, A. (2018)

105 CULTURAL CHANGES AND EXPOSURE OF THE TIBETAN CHILDREN TO OFF – VILLAGE EDUCATION: BASIS FOR AN ENRICHMENT EDUCATIONAL PROGRAM

Yangjiduojie (2017)

DISSERTATION ABSTRACTS

107 PROFILE, ADVERSITY QUOTIENT, AND MULTIFACTOR LEADERSHIP CHARACTERISTICS OF STUDENT AFFAIRS AND SERVICES ADMINISTRATORS: TOWARDS A LEADERSHIP MANAGEMENT TRAINING DESIGN

Rafols, J. C. (2015)

109 STRATEGIC PRIORITIES, MANAGEMENT COMPETENCIES AND PERFORMANCE OF SCHOOLS DIVISION IN NEGROS ISLAND REGION

Mansing - Temprosa, MA. (2017).

111 THE FAMILY INCOME AND HEALTH INDICATORS OF MILLENNIUM DEVELOPMENT GOALS AS DETERMINANTS OF THE QUALITY OF EDUCATION IN NEGROS ORIENTAL

Dumalagan – Cleope, R. (2018).

- 115 ABOUT THE AUTHORS
- 117 ABOUT THE REVIEWERS



re·ifi·ca·tion | rā-ə-fə- 'kā-shən : the act of regarding something abstract as concrete -Merriam-Webster

DETERMINANTS OF LET PERFORMANCE OF BEED, BSED, AND CPE GRADUATES AT A CENTER OF EXCELLENCE IN TEACHER EDUCATION

GINA A. FONTEJON-BONIOR AND PABLITO ABSIN DELA RAMA

ABSTRACT: This study investigated the extent to which Silliman University College of Education (SUCOE) may have prepared its Bachelor of Elementary Education (BEEd) and Bachelor of Secondary Education (BSEd) as well as the Certificate in Professional Education (CPE) graduates for the Licensure Examinations (LET) by determining if a significant relationship exists between the LET General Rating and the BEEd and BSEd graduates' Quality Point Average (QPA). Moreover, the study determined if a significant difference existed between the BSEd and the CPE LET ratings. Data on all 43 examinees in September 2012 (BEEd-19; BSEd-4; and CPE-20), and 86 in the September 2013 LET (BEEd-28; BSEd-18; and CPE-40), for a total of 129 participants were used. Pearson Product-Moment correlation statistics indicated that as regards the BEEd 2011 and 2012 examinees, there is a strong correlation (r=0.68) between the Quality Point Average in the four-year degree program and their General LET Rating. Mean while, there is a moderate correlation between the examinees' mean grade in the General Education (GE) subjects taken at Silliman University, and their mean rating for the General Education Subtest of the LET (r=0.46). A strong relationship (r=0.68) exists for both the Quality Point Average in the four-year degree program and their General LET Rating; and the mean grade in Professional Education (PE) courses and the examinees' rating in the Professional Education subtest in the LET (r=0.68). There is, however, a weak correlation (r=0.20) between the examinees' mean grade in the General Education courses taken and the mean rating in the General Education subtest in the LET. Similarly, the relationship between the mean grade in the 60-unit courses in their field of Specialization and the mean grade in their LET rating for field of Specialization is also weak (r=0. 25). Finally, statistics indicated that there is a significant difference between the LET ratings of combined Secondary Educ ation graduates (2011-2012 and 2012-2013) and the LET ratings of the CPE graduates. These findings suggest that, in general, SUCOE has sufficiently equipped its graduates as well as the CPE holders for the LET. However, considering that there is a weak relationship between the mean grade in GE and the mean rating in the LET GE section as well as the mean grade in the PE courses and the mean score in the LET rating for Specialization, a closer examination of the content of the LET must be done to see if the various general education and professional education courses have indeed been taught to sufficiently prepare the graduates for the LET.

KEYWORDS: Academic performance and rating in Licensure Examination for Teachers; Pre-service teacher education – preparation for Licensure Examination for Teachers

INTRODUCTION

RATIONALE

The Licensure Examination for Teachers (LET) is considered the litmus test for the quality of education provided by Teacher Education Institutions (TEIs). This is articulated by the *Statement Policy in Republic Act 7836*: An Act to Strengthen the Regulation and Supervision of the Practice of Teaching in The Philippines and Prescribing a Licensure Examination for Teachers and for Other Purposes which states that:

[t]he State recognizes the vital role of teachers in nation-building and development through a responsible and literate citizenry. Towards this end, the State shall ensure and promote quality education by proper supervision and regulation of the licensure examination and professionalization of the practice of the teaching profession.

R.A. 7836 further articulated that the LET has two objectives namely a) to promote, develop, and professionalize teachers and the teaching profession, and b) to supervise and regulate the licensure examination. On this basis, the Commission on Higher Education (CHED), in selecting the country's Centers of Excellence, specified Performance in the LET as one of the parameters of Instructional quality, which covers 45% of the criteria, the other three being Research and Publication (30%), Extension and Linkages (20%), and Institutional Qualification, e.g., accreditation (5%). For a TEI to get the highest point (4 points) for on the institution's performance in the LET, it should garner an average of 85% in both Bachelor in Elementary Education (BEEd) and Bachelor in Secondary Education (BSEd).

Silliman University, which is located in Dumaguete City, Region 7, southern Philippines, has been identified as a Center of Excellence in Teacher Education since 1997, and has since maintained such recognition. A study conducted by the Philippine Business for Education (PBEd) showed that based on its performance in the LET from 2009 to 2014, Silliman University is the top performing school for Category C [250 to 499 takers], with an average LET performance of 90% (Geronimo, 2015).

While this is commendable, it is worth noting that although the University's passing rate in the September LET has consistently been high, i.e., between 85and 100 percent, only two made it to the top ten in the past ten years: Maria Carlina Verches Roa (88.2%), a licensed civil engineer who completed her engineering degree at Silliman, placed 9th in the LET for Secondary Education in 2009; and fifth placer Ana Marielle Lim Ginete (89%), a BS Chemistry graduate at Silliman University, who took the LET in 2010. It is also noteworthy that both top performers were not graduates of the College of Education. Although they

completed their Bachelor's degrees at Silliman University, they did not take their Certificate in Professional Education course at Silliman. Roa took units in Special Education and completed her Certificate in Professional Education (CPE) at the Cebu State College of Science and Technology in Cebu City. Ginete had her CPE at the Philippine Normal University, the top performing school in the category A [1,000 and above test takers].

There is, therefore, a need to investigate if indeed the College of Education at Silliman University has sufficiently prepared its graduates for the LET, and to identify which areas need to be strengthened so that students' potential may be fully honed and LET top performing examinees may be produced.

STATEMENT OF THE PROBLEM AND RESEARCH QUESTIONS

The LET for BEEd has two subtests: General Education and Professional Education. The LET for BSEd has three: General Education, Professional Education, and Area of Specialization. It would therefore be interesting to determine if, indeed, there is a relationship between the examinees' performance in each of these subtests and their average grade in the courses covered in the subtest. For example, is the examinee's performance in professional education significantly related to their average grade or level of performance in all of the subjects that comprise the professional education courses?

Particularly, this study aimed to seek answers to the following questions:

- 1. What is the level of academic performance of the 2012 and 2013 BSEd graduates in the following areas?
 - a. General Education
 - b. Professional Education
 - c. Area of Specialization
- 2. What is the level of performance of the 2012 and 2013 BSEd graduates in the September 2012 and 2013 LET in the following areas?
 - a. General Education
 - b. Professional Education
 - c. Area of Specialization
- **3.** In terms of the BEEd class 2012 and 2013, is there a significant relationship between the
 - a. General rating in the LET and their quality point average
 - b. Performance in the general education subtest in the LET and the average in the general education subjects taken
 - c. Performance in the professional education subtest in the LET and the average in the professional education subjects?

- 4. In terms of the BSEd class 2012 and 2013, is there a significant relationship between the
 - a. General rating in the LET and the students' quality point average
 - b. Performance in the general education subtest in the LET and the average in the general education subjects taken
 - c. Performance in the professional education subtest in the LET and the average in the professional education subjects taken
 - d. Performance in the area of specialization subtest in the LET and the average grade in the area of specialization completed?
- 5. Is there a significant difference in the performance of BSEd examinees of the LET and the CPE holders who took the same examination?

SIGNIFICANCE OF THE STUDY

This study addresses the concern on whether the Silliman University in general and the College of Education in particular has indeed sufficiently prepared its graduates for the Licensure Examination for Teachers (LET). Particularly, it provides information on which areas need to be re-examined so that the University's national ranking in the LET may be improved. By determining which subtests in the LET is not correlated with the examinees' academic performance, one may inform curriculum decision-makers in the University particularly the College of Education which specific courses may be improved to increase the examinees' level of performance in the LET.

SCOPE AND DELIMITATION

Given the time limitation for this study, it focused only on the LET results of the September 2012 and 2013. Corollary to this, only the Quality Point Average (QPA) of those students who graduated in SY 2011-12 and 2012-2013, and took the LET are included. Since the BSEd LET examinees who had their Certificate in Professional Education (CPE) at Silliman University were graduates of various colleges and departments through several years, it was difficult to determine all of their areas of specialization. The researcher was also informed by the College Secretary that there was no listing of all the CPE students who took the September 2012 and 2013 LET and the area of specialization they declared when they applied for and took the examination. Thus, only their inclusion in this study is limited only to the identification of significant difference in the LET rating between the CPE and the BSEd graduates of 2012 and 2013.

RELATED LITERATURE

So much has been said about the deteriorating quality of Philippine education. What may be more alarming, however, is the deterioration of the quality of teacher education institutions, which are expected to provide the Department of Education with new breed of teachers every year. One of the mechanisms established by the Philippine government is the professionalization of the teaching profession through the Licensure Examination for teachers (LET). Section 27 of RA 7836 (An Act to Strengthen the Regulation and Supervision of the Practice of Teaching in the Philippines and Prescribing a Licensure Examination for Teachers and for Other Purposes) state that:

Except as otherwise allowed under this Act, no person shall practice or offer to practice the teaching profession in the Philippines or be appointed as teacher to any position calling for a teaching position without having previously obtained a valid certificate of registration and a valid professional license from the Commission.

The LET therefore is a gatekeeping mechanism that ensures the quality of teachers that will join the Department of Education (DepEd) in its task to facilitate learning among the Filipino children in the K-12 classrooms for generations to come. However, if LET performance were to be the benchmark for the quality of teacher training institutions in the country, so much needs to be done. A five-year research on the performance of teacher education institutions (TEIS) on the Licensure Examination for Teachers (LET) in the country revealed what many educators and TEI graduates already know: many TEIs have failed to equip their graduates with the knowledge and skills that are tested in the LET, thus the dismal performance in the examination.

In fact, according to the five-year study conducted by Philippine Business for Education (PBEd), "a non-profit, non-stock organization that aims to be the business community's response to the need for consensus and sustained advocacy in education reform," from October 2009 to September 2013, only 107 TEIs or about 10% of the 1,025 TEIs that produced graduates who took the LET for Elementary Education, had at least 75% of their graduates pass the LET. Moreover, only 151 or about 12% of 1,259 TEIs that produced BSEd graduates who took the LET within the same period had at least 75% of their students pass the LET" and are considered Good Performing TEIs. Meanwhile, "59% or 601 out of 1,025 TEIs for the elementary and 63% or 796 out of 1,259 TEIs for the secondary performed below their respective national test-taker passing rates of 52% and 56%, respectively" (Malipot, 2014, p. 1).

Moreover, according to the Commission on Higher Education (CHED), "the national passing rate (percent) in LET from 2001 to 2011 are: 34.30; 35.87; 26.27; 27.24;

26.99; 30.99; 28.50; 31.43; 25.50; 21.21; and 22.25, respectively." Not only is the national passing rate low, there also seems to be downward trend, from about 34 or 35 percent in 2001 and 2002, to its lowest mark on 21.21 percent in 2010 (dela Cruz, R. S., 2013).

This deterioration in the quality of teacher education as operationalized by LET ratings has caught the attention of solons. For example, "Pasig City Rep. Roman T. Romulo filed House Resolution 1814 urging his colleagues to step in the proliferation of Teacher Education Institutions (TEIs)" which, he posited, had significantly contributed to the deterioration on the quality of graduates who attempt to join the teaching force after completing their BEEd and BSEd degrees (Luci, C., 2015).

In his resolution, Romulo stated that "PRC records showed that only 35.74 percent or 23,301 elementary teachers out of 70,786 examinees, and only 34.40 percent or 26, 767 secondary teachers out of 77,803 examinees passed the August 17, 2014 LET. Also, in January 2014, the PRC announced that only 28.95 percent or 11,120 elementary teachers out of 38,377 examinees, and only 28.41 percent or 12,033 secondary teachers out of 42,358 examinees successfully passed the LET." Romulo further added that based on the "Review and Assessment of Programs offered by State Universities and Colleges (SUCs) conducted by the Philippine Institute for Development Studies (PIDS) in March 2014, the average passing rates of SUCs in LET from 2004 to 2011 have been below 30 percent of the national passing average." Romulo also added that among the causes of this deterioration of LET performance may be the proliferation of substandard TEIs, which ballooned between 1996 and 1998. Of the newly-opened TEIs, less that 30 percent complied with the minimum standards set by the Commission on Higher Education (CHED) for teacher education (Luci, 2015).

Meanwhile, based on its analysis of the data, PBEd proposed the following action plans: 1) closing down programs of TEIs that have consistently performed poorly for five years and by giving "incentive" to TEIs that perform well through financial support for government schools and accreditation of private schools; 2) provide more stringent "selection and recruitment process" of those who wish to take up Teacher Education; and 3) require TEIs to set up "information management" to "make LET results readily available to parents and prospective students" (PBEd, 2013). Borromeo added that "LET application forms, the group added, should also 'differentiate information on undergraduate degrees from the Certificate in Teaching Program for better performance monitoring" (Malipot, 2014).

The proposal of PBEd, however, is not the first of its kind. The Commission on Higher Education (CHED) has instituted several strategies to address the deteriorating quality of Teacher Education in the Philippines. Among these is the establishment of Centers of Excellence and Centers of Development for Teacher Education (COETEs) and Centers of Development for Teacher Education, as articulated in CHED Memorandum Order 26, series of 2007. CHED awards this status to a select group of TEIs that have met the qualifications of the Commission, one of which is a consistently high rating in the LET. To get a full rating on LET, the TEI applying for COETE status must maintain an average of 85% passing rate in the LET in the past three years. As reward, the TEI is given priority in 1) the "selection of CHED institutional partners with regards to CHED developmental projects; 2) granting of faculty scholarships and research grants; and 3) financial assistance for CHED-approved project proposals. In turn, the COETE is tasked to 1) act as role model in TE programs; 2) sustain and enhance research capabilities and upgrade professional or research graduate programs; 3) undertake activities and projects necessary in developing quality TE programs; and 4) undertake extension and linkages through consortia and collaborations with the academe, among others. For the COETE to provide leadership and assist other TEIs in its region, it must first evaluate its programs and performance in the LET. A review of the literature would show that indeed, several TEIs, regardless of their status, have policed its ranks by conducting research on the determinants of LET performance with the goal of improving the TEIs performance in the LET. Below are some of these studies.

RELATED STUDIES

Several studies have been conducted to determine the relationship between academic grades and performance in the Licensure Examination for Teachers (LET). Most of the studies, explored the examinees' general average in the LET and several variables students' personal profile, peer or mentor rating on their teaching proficiency, examinees' proficiency in the English language, and academic achievement. Others aimed to determine if there existed a correlation among the three subtests or components of the LET, namely General Education, Professional Education, and Field of Specialization.

Pascua and Navalta's (2011) study employed a descriptive survey method with the use of documentary analysis to determine if there was a significant difference in the LET performance when grouped according to gender and degree course. The F-test was used to determine if there was a difference in LET performance and the English proficiency of the respondents. The findings indicated that the higher the GPA, the higher the expected LET performance; and the higher is the English proficiency, the higher is the LET performance. Moreover, it was observed that as the respondent's Admission Test Score increased, there was also a tendency that the LET score would also increase (pp. 90-102). The study was done on examinees who graduated in a State University during the second semester, S.Y. 2007-2008.

The study conducted by Espino, Roman, & Magno (2009) covered five years (2004-2008). The study aimed to determine the academic performance of the graduates from 2004-2008 and to determine if there is a significant relationship between their academic performance, licensure and teaching performance. Statistical treatment such as frequency

counts, percentage, Pearson r, T-test and Coefficient of Determination were utilized on a sample of 33 respondents out of the 111 graduates from 2004-2008 who took the Licensure Examination for Teachers. Finding of the study indicated that out of the 184 who graduated in the covered years of the study, only 111 (60%) took the licensure examination. Of this number, only 47 (42%) passed the LET. Of the 47 who passed, 33 (70%) pursued a career in teaching. The remaining 14 (30%) opted for non-teaching job rather than teaching. Secondly, the respondents performed very well in their academic subjects in the area of General Education, Professional Education and Major Subjects. Finally, a slight positive relationship and significant relationship between academic performance and licensure examination was observed. Further, there was a marked and substantial positive and significant relationship between academic and teaching performance. Similarly, results indicated that performance in the licensure examination rating was related to teaching performance.

Similar findings were observed in the Lozarita, Acledan, and Flores' (2009) study on the Academic Achievement and Performance in Licensure Examination of University of Mindanao (UM) Education Graduates. The study aimed to determine if academic achievement of education graduates of University of Mindanao from SY 2003-2006 relates to their performance in the Licensure Examination for Teachers (LET). The goal was to design a pre-service instructional framework that would lead towards LET performance improvement. Using descriptive correlation method with the mean, F-ratio, and Pearson r as statistical tools, the researchers found that academic achievement has a significant relationship to LET performance.

Similarly, to address the concern on the low passing percentage of Education graduates at the Rizal Technological University, a study was conducted to determine if the academic grades of the students are a predictor of their performance in the board examination. The study also correlated that the board performance with the three components of the academic subjects, using Pearson Product-Moment Correlation. The findings show that there is a moderate correlation between LET rating and general education grades. The correlation between academic achievement and LET professional education rating, as well as the academic performance and LET rating in specialization indicated slight correlation. The researchers therefore claimed that there is a linear relationship between the three academic subjects and the overall rating of LET. The findings showed a very weak relationship, the computed coefficient gives a positive interpretation that in every one unit increase in the predictors an increase in the overall Licensure Examination Performance for Teachers could be expected (Pachejo & Allaga, 2013, pp. 31-40).

All of the aforementioned studies suggest that, in general, a significant relationship does exist between the examinees' academic performance and the general rating in the LET, although the correlation is often moderate, slight, or weak. However, none of these studies were conducted on CHED-identified Centers of Excellence. This study attempts to address this gap in the literature using the case of Silliman University College of Education.

Moreover, none of the aforementioned studies explored the case of Secondary Education examinees who did not complete a four-year degree program in Education but are college degree holders who took the required 18 units of professional education courses to complete the Certificate in Professional Education (CPE) program, as mandated in CHED Memorandum 30, series of 2007. Given the growing number of students in the CPE program at Silliman University College of Education, and most likely in other teacher education institutions in the Philippines, this study seeks to compare the performance of CPE graduates in the LET to that of BEEd and BSEd graduates.

Primarily, this current study aims to explore the relationship between the students' General Average in the four-year degree program at the College of Education at Silliman University and their General Average in the LET. Moreover, it aims to determine if a significant relationship existed between the average grade in the general education subjects taken and performance in the general education subtest in the LET as well as the average grade in the professional education subjects taken at Silliman University and the examinees' performance in the professional education subtest in the LET. In addition, for the BSEd examinees, the study aims to determine if a significant relationship existed between the average grade in the area of specialization, e.g., English or MAHPE, and Performance in the same area of specialization subtest in the LET. Finally, this study seeks to determine if there is a significant difference between the Performance of BSEd examinees who completed a four-year degree program and those who completed the CPE course.

Below is the conceptual framework of this study.



Figure 1. Conceptual Framework

The above framework suggests that the relationship or difference among the independent and dependent variables, for example between the general average in the academic performance of the examinees and their general average in the LET will inform decisions on how the TEI may improve its program to better prepare its graduates for the LET, the ultimate goal of which is to produce top notchers. In this manner, the status of the institution as a Center of Excellence in Teacher Education (COETE) will be strengthened.

In this study, General Education courses refer to the following subjects covered in the LET: English, Filipino, Mathematics, Science, and Social Studies. Specific knowledge and skills are tested in each of these subjects. For example, in English, the following areas are tested: Study and thinking skills, Writing in the Discipline, Speech and Oral Communication, Philippine literature, and Master works of the world. Both BEEd and BSEd examinees take this section of the LET. Meanwhile, Professional Education courses refer to courses specified in CHED Memorandum Order 30, series of 2007, which includes the following: Teaching profession, Social dimensions of education, Principles of teaching, Educational technology, Curriculum development, Facilitating learning, Child and adolescent development, Assessment of student learning, Developmental reading, Field Study, and Practice teaching. This subtest in the LET is taken by both BEEd and BSEd examinees. Finally, Quality Point Average in Silliman University refers to the general average of all the required courses taken based on the Course Study Plan. In computing for the Quality Point Average (QPA), the subjects shall be weighted according to their respective units. For example, while most course are assigned a three-unit weight, Physical Education is accorded 2 units only. In determining the QPA, computation should be carried to the hundredth's place and rounded off to the tenth's place.

METHODOLOGY

DESIGN AND METHOD

This study employed the ex-post facto research method since the researchers analyzed existing documents (Pachejo & Allaga, 2013) pertaining to the academic performance and LET rating of the teacher education graduates from 2011-2012 and 2012-2013. Correlational method was also used in finding the degree of relationship of graduates' achievement in general education, professional education, and specialization subjects to their performance in each of these subtests in the licensure examination for teachers.

Sampling Method. There are only 43 examinees in September 2012 (BEEd-19; BSEd-4; and CPE-20), and 86 in the September 2013 LET (BEEd-28; BSEd-18; and CPE-40), for a total of 129 participants. So, the researcher decided to include all of the participants in the study.

Data Gathering Instruments. The researcher made use of document analysis. A copy of each of the students' Grading Sheet was requested from the University Registrar's Office. For the LET results, official copies from the Philippine Regulatory Board (PRC), which were sent to the University Registrar's Office retrieved and were photocopied.

Data Gathering Procedure. An email was sent to the Registrar's Office at Silliman University, through the dean of the College of Education. The letter requested for complete access to the grades of all Education students who graduated in School Year 2011-2012, and 2012-2013 as well as the PRC-certified LET results of the September 2012 and September 2013 examinations. Since the grades were not initially categorized according to General Education and Professional Education, as well as Specialization courses for BSEd, the researcher identified all the subjects belonging to each of the aforementioned three categories based on the listing indicated in the CHED Memorandum Order 30 series of 2004. (See Appendix A). Institutional requirements, or subjects required in Silliman University as a non-sectarian, church-based school, e.g., Religion and Christian Ethics subjects, were considered part of the General Education subjects since they are steep in reading and writing assignments in English and are therefore deemed contributory to the English communication skills development of the students. The researcher then computed for the weighted mean of the subjects that composed each of the three categories: General Education and Professional Education, and for BSEd, also the Field of Specialization. (See Appendix B for sample computation/coding).

Statistical Treatment of Data. The following statistical tools were used in the presentation, interpretation and analysis of data. For Research Questions 1 and 2, frequency counts, percentages, and general weighted average were used. For Research Questions 3 and 4, Pearson Product-Moment Correlation was used. Finally, for Research Question 5, t-test was employed to determine if there was a significant difference in the LET performance of the BSEd graduates who took the LET in September 2012 and 2013 and the CPE holders who took the same examination in their field of specialization. The calculations were done using Microsoft Excel 2010 Data Analysis Toolpack. The range of values for the correlation coefficient used to interpret the degree of strength of linear relationship are as follows: 0 (no correlation); .10: (weak correlation); .30 (moderate correlation); .60 (strong correlation) and 1.0 (perfect correlation) (Levin, Fox, & Forde, 2010, p. 349).

DATA ANALYSIS AND INTERPRETATION

This study sought to determine if a significant relationship existed between the average grade in the general education subjects taken and performance in the general education subtest in the LET as well as the average grade in the professional education subjects taken at Silliman University and the examinees' performance in the professional education subtest in the LET. Finally, this study sought to determine if there is a significant difference

between the Performance of BSEd examinees who completed a four-year degree program and those who completed the CPE course.

All of the 43 examinees who took the September 2012 LET and all of the 86 examinees who took the aforementioned examination in September 2013 were included in this study. See Table 1 below.

Distribution of randoparts							
Degree	SY completed (2011-2012)	SY completed (2012-2013)					
BEEd	19	28					
BSEd	4	18					
CPE	20	40					
Total	43	86					

TABLE 1.Distribution of Participants

Level of Academic Performance BEEd Examinees who took the LET in 2012 and 2013. Table 2 below shows the Grading system of Silliman University. On this basis, the Academic Performance of the BEEd examinees were described. This is presented in Table 3.

TABLE 2.

Silliman University Grading System

			Percentage Grade Equivalence Table	
Letter Grade	Quality Points	Numerical Ratings	Quality Marks	(AC Action 77 78:25)
A	4.0	4.0, 3.9, 3.8	Excellent	97-100
A-	3.5	3.7, 3.6, 3.5, 3.4, 3.3	Very Good	93-96
В	3.0	3.2, 3.1, 3.0, 2.9 2.8	Good	89-92
B-	2.5	2.7, 2.6, 2.5, 2.4, 2.3	Average	85-88
С	2.0	2.2, 2.1, 2.0, 1.9, 1.8	Above Average	81-84
C-	1.5	1.7, 1.6, 1.5, 1.4, 1.3	Below Average	77-80
Ρ	1.0	1.2, 1.1, 1.0	Passing	73-76
F	0.0	0.0	Failure	72 and below

Note: Lifted from Silliman University Student Manual

Level of Academic Performance of BEEd 2011-2012. Based on the grading system above, Table 3 below shows that the BEEd 2011-2012 graduates had

better academic performance in Professional Education subjects, with mean grade of 3.2 (GOOD) compared to their general education subjects. Their mean grade in General Education subjects is one level below with a numerical rating of 2.7, which is ABOVE AVERAGE.

TABLE 3.

Level of Academic Performance of BEEd 2011-2012

Numerical	Description	Academic Performance				
Rating	Description -	Gen Ed(%)	Prof Ed(%)	QPA(%)		
3.8-4.0	Excellent	0(0.00)	0(0.00)	0(0.00)		
3.3-3.7	Superior	2(10.53)	9(47.37)	3(15.79)		
2.8-3.2	Good	4(21.05)	10(52.63)	11(57.88)		
2.3-2.7	Above Average	11(57.89)	O(0.00)	5(26.32)		
1.8-2.2	Average	2(10.53)	O(0.00)	0(0.00)		
1.3-1.7	Below Average	O(0.00)	O(0.00)	0(0.00)		
1.0-1.2	Passing	O(0.00)	O(0.00)	0(0.00)		
M	ean	2.7	3.2	2.9		

Similarly, the academic performance of the BEEd 2012-2013 in Professional Education subjects is slightly higher than that of the graduates in 2011-2012. However, the description for both categories of courses are within the same level, GOOD. This shows that the BEEd batch 2012-2013 performed slightly better than those in SY 2011-2012.

TABLE 4.

Level of Academic Performance of BEEd 2012-2013

Numerical	Description	Academic Performance				
Rating	Description -	Gen Ed(%)	Prof Ed(%)	QPA(%)		
3.8-4.0	Excellent	0(0.00)	0(0.00)	0(0.00)		
3.3-3.7	Superior	2(7.14)	12(42.86)	6(21.43)		
2.8-3.2	Good	16(57.14)	15(53.57)	18(64.29)		
2.3-2.7	Above Average	9(32.14)	1(3.57)	4(14.29)		
1.8-2.2	Average	1(3.57)	O(0.00)	0(0.00)		
1.3-1.7	Below Average	O(0.00)	O(0.00)	0(0.00)		
1.0-1.2	Passing	O(0.00)	O(0.00)	0(0.00)		
M	ean	2.9	3.2	3.0		

Level of Academic Performance of BSEd 2011-2012 and 2012-2013.

As shown in Tables 5 and 6, the level of academic performance of BSEd 2011-2012 graduates are similar, with the Field of Specialization posting the highest mean, i.e., 3.1 in 2011-2012 and 3.3 in 2012-2013. The BSEd graduates in the two school years also have comparable mean grades in General Education and Professional Education courses, and similar QPA, 3.1.

TABLE 5.

Level of Academic Performance of BSEd 2011-2012

Numerical		Academic Performance				
Numerical Rating	Description	Gen Ed(%)	Prof Ed(%)	Specialization	QPA(%)	
3.8-4.0	Excellent	0(0.00)	0(0.00)	0(0.00)	0(0.00)	
3.3-3.7	Superior	1(25.00)	2(50.00)	O(0.00)	1(25.00)	
2.8-3.2	Good	2(50.00)	1(25.00)	3(75.00)	2(50.00)	
2.3-2.7	Above Average	0(0.00)	0(0.00)	1(25.00)	1(25.00)	
1.8-2.2	Average	1(25.00)	1(25.00)	O(0.00)	0(0.00)	
1.3-1.7	Below Average	0(0.00)	0(0.00)	O(0.00)	0(0.00)	
1.0-1.2	Passing	0(0.00)	0(0.00)	O(0.00)	0(0.00)	
N	lean	2.9	3.0	3.1	3.1	

TABLE 6.

Level of Academic Performance of BSEd 2012-2013

Numerical	_	Academic Performance					
Rating	Description	Gen Ed(%)	Prof Ed(%)	Specialization	QPA(%)		
3.8-4.0	Excellent	0(0.00)	0(0.00)	0(0.00)	0(0.00)		
3.3-3.7	Superior	7(38.89)	8(44.44)	10(55.56)	8(44.44)		
2.8-3.2	Good	6(33.33)	3(16.67)	7(38.89)	6(33.33)		
2.3-2.7	Above Average	4(22.22)	7(38.89)	1(5.56)	4(22.22)		
1.8-2.2	Average	1(5.56)	0(0.00)	0(0.00)	0(0.00)		
1.3-1.7	Below Average	0(0.00)	0(0.00)	0(0.00)	0(0.00)		
1.0-1.2	Passing	0(0.00)	0(0.00)	0(0.00)	0(0.00)		
Mean	3.0	3.0	3.3	3.1			

Level of LET Performance of the BEEd for SY 2012-2012 and 2012-2013. As regards the level of performance in the LET, Table 7 below shows that the examinees who graduated in 2012-2013 performed slightly better than their 2011-2012 counterpart. For the 2011-2012 batch, the mean rating for General Education is 78.74 (FAIR), while the 2012-2013 batch had a mean rating of 80.29 (GOOD). Similarly, while the mean rating of the 2011-2012 examinees in Professional Education is 81.11, the mean rating for the same subtest for the 2012-2013 graduates was slightly higher at 82. 18 (GOOD). One may therefore say that 2012-2013 examinees consistently performed better compared to the 2011-2012 graduates.

TABLE 7.

Numerical	Description -	2011-	2012	2012-2013	
Rating	Description -	Gen Ed	Prof Ed	Gen Ed	Prof Ed
<u>≥</u> 90	Excellent	0(0.00)	0(0.00)	0(0.00)	0(0.00)
85-89	Very Good	0(0.00)	0(0.00)	1(3.57)	9(32.14)
80-84	Good	8(42.11)	16(84.21)	17(60.71)	12(42.86)
75-79	Fair	11(57.89)	3(15.79)	10(35.71)	6(21.43)
≤74	Poor	0(0.00)	0(0.00)	0(0.00)	1(3.57)
M	ean	78.74	81.11	80.29	82.18

Level of LET Performance of BEEd Graduates

Level of LET Performance of the BSED for SY 2012-2012 and 2012-

2013. Contrary to the BEEd group where the 2012-2013 batch consistently albeit slightly outperformed their 2011-2012 counterpart, the BSEd 2011-2012 batch outperformed the 2012-2013 LET takers in all but one subtest. The BSEd 2011-2012 graduates had an average rating of 79.75 (GOOD) while the 2012-2013 graduates only had a mean rating 76.72 (FAIR). Meanwhile, while the 2011-2012 BSEd graduates had an average LET rating of 82.2 percent in Professional Education, the 2012-13 graduates only had a mean rating of 80.89 per cent although they share the same description (GOOD). As for the field of specialization, the 2012-2013 graduates' mean rating was higher compared to the 2011-2012 graduates. See Table 8 below.

TABLE 8.

Level of the LET Performance of BSEd

Numerical	Description	2011-2012			2012-2013		
Numerical Rating	Description	Gen Ed	Prof Ed	Spclztn	Gen Ed	Prof Ed	Spclztn
≥ 90	Excellent	0(0.00)	0(0.00)	0(0.00)	0(0.00)	1(5.56)	0(0.00)

85-89	Very Good	0(0.00)	1(25.00)	0(0.00)	1(5.56)	6(33.33)	2(11.11)
80-84	Good	2(50.00)	2(50.00)	2(50.00)	9(50.00)	2(11.11)	9(50.00)
75-79	Fair	2(50.00)	1(25.00)	1(25.00)	4(22.22)	8(44.44)	7(38.89)
≤74	Poor	0(0.00)	0(0.00)	1(25.00)	4(22.22)	1(5.56)	0(0.00)
Μ	lean	79.75	82.25	77.50	76.72	80.89	80.61

Relationship Between LET Ratings and Undergraduate Grades.

With respect to RQ3, Table 9 below indicates that there is a high positive correlation between the combined September 2012 and 2013 BEEd examinees' General LET rating and their quality point average (r value = 0.63). Moreover, there is a moderate significant relationship between the combined 2012 and 2013 BEEd examinees' General Education LET mean rating and their General Education mean grade (r value=0.46). Likewise, there is a moderate but significant relationship between the combined 2012 and 2012 and 2012 and 2013 BEEd examinees' mean rating in Professional Educational and their mean grade in the Professional Education courses taken at the College of Education at Silliman University. See Table 9 below.

TABLE 9.

Test of relationship between the BEEd LET ratings and their undergraduate grades

Variables	r value	df	р	Decision	Remarks
Gen rating in the LET and QPA	0.63	45	< 0.000	Reject Ho	Significant
Gen Ed in the LET and Gen Ed undergrad	0.46	45	0.001	Reject Ho	Significant
Prof Ed in the LET and Prof Ed undergrad	0.47	45	0.001	Reject Ho	Significant

Relationship Between LET Ratings and Undergraduate Grades.

As for the RQ 4, Table 10 below shows that there is a high positive correlation between the combined 2012 and 2013 BSEd mean LET general rating and their Quality Point Average (r = 0.68). Similarly, the relationship between their LET rating in Professional Education subtest and the professional education course grades is high (r = 0.68). On the other hand, there is a weak correlation between the examinees' LET rating in the General Education subtest and their mean grade in the General Education subjects taken at Silliman University. Similarly, there is a very small positive correlation (r= 0.25) between the examinees' mean LET rating in the subtest on Specialization and their mean grades in the major subjects they take at Silliman University

TABLE 10.

Test of relationship between the BSEd LET ratings and their undergraduate grades

Variables	r value	df	р	Decision	Remarks
Gen rating in the LET and QPA	0.68	20	0.000	Reject Ho	Significant
Gen Ed in the LET and Gen Ed undergrad	0.20	20	0.379	Accept Ho	Not Significant
Prof Ed in the LET and Prof Ed undergrad	0.68	20	0.000	Reject Ho	Significant
Specialization in the LET and Specialization in the undergrad	0.25	20	0.272	Accept Ho	Not Significant

It is also worth noting that the number of LET takers who failed in their previous attempts has negatively affected the batch's overall rating. For example, all of the 19 BEEd graduates in SY 2011-2012 (100%) who took the September 2012 LET passed the examination. Similarly, all of the 31 BEEd graduates (100%) who graduated in SY 2012-2013 passed the LET. However, the overall rating in the LET 2012 was only 86.36 while the overall rating in 2013 was only 93.94% because of the repeaters who graduated in the past years who took and failed the test.

As for the BSEd, of the 28 graduates in SY 2011-2012, a total of 27 (96.43%) passed the September LET. Only four of the twelve repeaters who took the test (33%) passed the examination, bringing the overall rating down to 77.50%. Similarly, in September 2013, a total of 45 of the 55 (81.82%) who graduated in the same year and thereafter took the LET passed the examination. However, since only two of the five repeaters (28.57%) who took the LET passed the examination, the overall rating was brought down to 75.81%. In other words, the poor performance of LET repeaters has negatively affected the overall rating of Silliman University College of Education. There is therefore a need to examine where these differences lie and to explore how the Certificate in Professional Education Program may be improved.

With respect to the Research Question 5, Table 11 below shows that there is a significant difference between the LET ratings of combined Secondary Education graduates (2011-2012 and 2012-2013) and the LET ratings of the CPE graduates. Specifically, as reflected in the mean ratings, the BSEd graduates had a better performance compared to their CPE counterpart. Thus, we reject the Ho of no significant difference.

t value Variables **x**1 $\bar{\mathbf{x}}\mathbf{2}$ Decision Remarks р BSEd &CPE 2.79 80.05 75.49 0.007 Reject Ho Significant LET ratings

TABLE 11.

Test of Difference between the BSEd and CPE graduates in the LET

Note: \bar{x}] = the mean of the BSEd ratings \bar{x} 2 = the mean of the CPE ratings

CPE holders already have undergraduate degrees in their areas of Specialization, e.g., BS Mathematics, Engineering, etc., so one may assume that they have already developed expertise in their area of Specialization. They enroll at the College of Education primarily to prepare themselves for the Professional Education subtest in the LET. A quick look at the Performance of the CPE graduates in the September 2013 LET would show that eleven of the forty (28%) failed the LET. More importantly, all of those who failed also failed in the Professional Education subtest in the LET. In fact, their average rating in Professional Education is only 59.73%, which is about 15 points lower than the passing rate of 75%. The same observation may be said of the CPE graduates who failed in the 2011-2012 examination. Six of the two LET examinees (30%) in 2012 failed the LET. Of those who failed, only two got 75% in the Professional Education subtest. In fact, their average rating in the Professional Education courses is only 69.5%.

It may be said therefore that the College of Education at Silliman University has not sufficiently prepared 28% of the CPE for the LET 2013 and 30% of the CPE graduate who took the examination in 2012, particularly in the Professional Education subtest, which is the main reason why they enroll in the CPE program. There is therefore a need to evaluate or review the CPE program to determine how it may best serve the students who pay for an 18-unit Professional Education course.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

This study explored the performance of Silliman University as a Center of Excellence in Teacher Education with respect to its performance in the LET. Moreover, it investigated the extent to which the University may have prepared its Bachelor of Elementary Education (BEEd) and Bachelor of Secondary Education (BSEd) as well as the Certificate in Professional Education (CPE) graduates for the Licensure Examinations for BEEd and BSEd respectively by determining if a relationship exists between the LET General Rating and the BEEd and BSEd graduates' Quality Point Average (QPA), which represents their average grade in all the subjects required to complete their degree. Moreover, the study determined if there is a significant relationship in the LET ratings

among the three subtests namely General Education, Professional Education, and Areas of Specialization. Finally, the study determined if a significant difference existed between the BSEd and the CPE LET ratings.

As for the RQ 1, on the level of academic performance of the 2012 and 2013 BEEd and BSEd graduates, the descriptive statistics show that for 2011-2012 and 2012-2013 BEEd graduates, their academic performance on the two areas, General Education and Professional Education are GOOD, except for the 2011-2012 General Education mean grade which was slightly lower and had the verbal descriptor of ABOVE AVERAGE. As for the Quality Point Average, which indicated the general average in all subjects taken to complete the degree, the two batches had almost the same rating, and therefore had the same verbal descriptor, which is GOOD.

Similarly, in relation to RQ2, the BSEd graduates of 2011-2012 and 2013 had the same verbal descriptor (GOOD) for all of the three subject groupings, General Education, Professional Education, and Areas of Specialization, as well as the Quality Point Average. Numerically, however, the 2012-2013 graduates had a slightly better academic performance compared to those who graduated in SY 2011-2012.

As for RQ3, the Pearson Product-Moment correlation statistics indicated that as regards the BEEd 2011 and 2012 examinees, a) there is a strong correlation (r=0.68) between the Quality Point Average in the four-year degree program and their General LET Rating. Meanwhile, there is a moderate correlation between the examinees' mean grade in the General Education subjects taken at Silliman University, and their mean rating for the General Education Subtest of the LET (r=0.46). The correlation between the mean grade in the Professional Education courses and the mean rating in the Professional Education subtest in the LET is also moderate (0.47). However, when the researcher used Chi square to determine if such a relationship exists, the relationship found was weak.

With respect to RQ4, there is a strong relationship (r=0.68) for both the Quality Point Average in the four-year degree program and their General LET Rating; and the mean grade in Professional Education courses and the examinees' rating in the Professional Education subtest in the LET (r=0.68). There is, however, a weak correlation (r=0.20) between the examinees' mean grade in the General Education courses taken and the mean rating in the General Education subtest in the LET. Similarly, the relationship between the mean grade in the 60-unit courses in their field of Specialization and the mean grade in their LET rating for field of Specialization is also weak (r=0.25).

Finally, as to RQ5, statistics indicated that there is a significant difference between the LET ratings of combined Secondary Education graduates (2011-2012 and 2012-2013) and the LET ratings of the CPE graduates. The two groups are not performing in the same way.
CONCLUSIONS AND RECOMMENDATIONS

Findings in this study suggest that, in general, SUCOE has sufficiently equipped its graduates as well as the CPE holders for the LET. However, considering that there is a weak relationship between the mean grade in GE and the mean rating in the LET GE section as well as the mean grade in the PE courses and the mean score in the LET rating for Specialization, a closer examination of the content of the LET must be done to see if the various general education and professional education courses have indeed been taught to sufficiently prepare the graduates for the LET.

Moreover, the plight of the CPE holders as well as LET repeaters must also be further investigated. Graduates of Bachelor Degrees take CPE courses at the College of Education to prepare themselves for the Professional Education subtest of the LET. In fact, all of the 18 unit-courses that they enroll are in Professional Education subjects. Thus, it is alarming to note that all of the CPE examinees who failed the examination in 2012 also failed in the Professional Education subtest of the LET. Worse, their average rating in the Professional Education subtest is only 59.73%, which is much lower than the passing rate of 75%.

On the other hand, considering that the two LET topnotchers that the Silliman University College of Education has produced are from the CPE group, improving the LET rating in the Professional Education subtest may yet be what it takes to produce another topnotcher. This is particularly true in the case of the 2013 LET. One of the examinees from the CPE group, a BS Mathematics graduate got 91 percent in the Field of Specialization. However, she only got 75% in the Professional Education subtest, and 84 in General Education, which pulled down her general rating to only 82.8. This is an opportunity missed.

There is therefore a need to evaluate or review the CPE program to determine how it may best serve the students who pay for an 18-unit Professional Education course. The same may be recommended for the repeaters. It is also noteworthy that the findings in this study show that all of the BEEd and BSEd graduates who failed are repeaters. If the Silliman University College of Education as a COETE seriously considers maintaining between 90 and 100% passing rate, it should re-examine its weakest links: the repeaters and the CPE, and for the first time takers, those who are majoring in MAHPE, and identify strategies that would improve their performance in the Licensure Examination for Teachers (LET). Moreover, there is a need to closely review the Professional Education courses, particularly those taken by CPE candidates.

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GUIDED USE OF COMPUTER SIMULATION IN A CONSTRUCTIVIST BRING YOUR OWN DEVICE (BYOD) LEARNING ENVIRONMENT IN FACILITATING STUDENTS' CONCEPTUAL UNDER-STANDING OF KINEMATICS GRAPHS

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ABSTRACT: This mixed-methods study investigated the effect of guided use of computer simulation in facilitating conceptual understanding of kinematics graphs of mo-tion in one dimension using two groups of Grade VII students. Data sources in-cluded pre and post assessments that were administered to both control and experimental groups, and classroom observations, interviews and focus group discussions in the experimental group. Paired samples t-test showed significant difference in the pre (M=2.58, SD=1.13) and post assessments (M=4.88, SD=1.81) of the control group and in the pre (M=2.87, SD=1.14) and post as-sessments (M=5.74, SD=3.08) of the experimental group. The Cohen's effect sizes for the control group (d=1.5) and the experimental group (d=1.2) are large. Independent samples t-test revealed no significant difference of the post-test assessments of the control (M=4.88, SD=1.81) and experimental groups (M=5.74, SD=3.08), t(76)=1.51, p=0.13. The guided use of computer simulation enabled the students to have interactions with the material. the teacher and other students. The scientific conceptions of students in both control and exper-imental groups are still developing and alternative conceptions still persisted. It is concluded that the guided use of computer simulation had an average effect on facilitating students' conceptual understanding on kinematics graphs.

KEYWORDS: computer simulation; conceptual understanding; alternative conceptions; kine-matics graphs; constructivist learning environment

INTRODUCTION

 \mathbf{T} he teaching and learning of physics is commonly perceived as difficult. This difficulty is associated with students' intuitive preconceptions that have been devel-oped even before formal physics instruction (Clement, 1982). For instance, students gain personal experiences in their day to day lives that relate with the kinematics branch of physics, which contribute to their own understanding of the properties of distance, velocity, and acceleration that are either incomplete or erroneous (Hale, 2000). As a result, when students enter the classroom, they bring with them a wide range of preconceptions, beliefs, misconceptions and alternative conceptions that do not match scientific ideas most of the time (Brungardt & Zollman, 1995; Davis, 2001; Demirci, 2005). Consequently, this

results to difficulties and misunderstand-ings that are often manifested when students are asked to deal with kinematics graphs because this requires not only their graphing skills but also their ability to in-terpret the concepts presented on the graphs.

REVIEW OF RELATED LITERATURE

McDermott, Rosenquist, and van Zee (1987) categorized student difficulties in relation to understanding kinematics graphs into two: 1) difficulty in connecting graphs to physical concepts, and 2) difficulties associated with connecting graphs to the real world. Difficulty in connecting graphs to physical concepts are classified in-to five: a) discriminating between slope and height, b) interpreting changes in height and changes in slope, c) relating one type of graph to another, d) matching narrative information to the graph, and e) interpreting the area under the graph. For the difficulties associated with connecting graphs to the real world, they identified the following difficulties: a) representing continuous motion by a continuous line, b) separating the shape of a graph from the path of the motion, c) representing nega-tive velocity, d) representing constant acceleration, and e) distinguishing between different types of kinematics graphs.

Similarly, Beichner (1994) identified the following student difficulties with kinematics graphs: a) graph as picture errors because students considered the graph the same as the photograph of the situation; b) slope/height error due to mis-reading the axes and immediately assigning the height to the slope; c) variable con-fusion since students are not able to discriminate distance, velocity, and accelera-tion; d) non-origin slope errors as students easily find the slope of lines passing through the origin but fail to do so if the lines do not pass through zero; e) area ig-norance because they do not recognize the area under kinematics graph curves; and f) area/slope/height misunderstanding because they usually calculate slope using the wrong axis values instead of calculating area. It is often considered a "simple mistake" when students incorrectly give the height of a graph instead of the slope at that point. However, this is not caused by a misconception but by mere mis-reading or some other simple error (Hale, 2000).

Accordingly, teachers need to be aware of the conceptual difficulties of stu-dents regarding kinematics graphs (Beichner, 1994) to develop their conceptual understanding of the topic. As early as their first encounter of physics in junior high school in the Philippine K to 12 Basic Education Curriculum (Department of Educa-tion, 2016), students' conceptual difficulty must be dealt with accordingly by ad-dressing their underlying alternative conceptions. However, the traditional instruc-tion does not help students significantly in understanding kinematics graphs even for an extended time (Erceg & Avaiani, 2014). On the other hand, a non-traditional, constructivist instructional intervention can offer students a reliable process of changing their conceptions.

Changing students' conceptions requires students to actively construct their own ideas

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based on their prior knowledge through learning activities that will lead to conceptual change. This is in line with the postmodern constructivist perspective that that go hand in hand with technology integration to induce the conceptual change process. Generally speaking, the postmodern constructivist perspective em-phasizes the social dimension of constructivism, which are postulated by two well-known constructivist variations (Phillips, 2000 as cited in Amineh & Asl, 2015): the Sociocognitive Conflict Theory of Piaget, and the Sociocultural Theory of Vygotsky (Palinscar, 1998).

Within the SocioCognitive Conflict Theory, Piaget and his disciples proposed that during social interaction the learner is able to reorganize and restructure cogni-tions as a result of cognitive conflicts (Bell, Perret-Clermont & Grossen, 1985). Through this, learning starts when the learners become aware (Hartle, Baviskar & Smith, 2012) of the disturbance of the learner's cognitive structures which prompts the learner to engage in assimilation to fit new experiences into existing knowledge or in accommodation to construct or alter internal structures (Schunk, 2012). To compel cognitive conflict, there must be peer interaction (Damon, 1984) as children who had social exchanges with other children are more likely to have conceptual development than those who had exchanges with adults (Palinscar, 1998). This is because "development that requires giving up current understanding to reach a new perspective might best be attained through interaction with peers, whereas learning that does not require a transformation of perspective but rather is character-ized as the accretion of a new skill or strategy might be best attained by working with more skillful and experienced partner, such as adults" (Damon, 1984, p.351 as cited in Palinscar, 1998). Certainly, the learner's interaction with peers or adults has a strong influence on the learner's cognitive development.

Similarly, Vygotsky believed that social development directly influences cog-nitive development of learners (Roblyer & Edwards, 2000). According to Vygotsky, cognitive development results from the learner's "dynamic" interaction with the so-cial environment (Anastasia, 2016). In line with this, Vygotsky posits that for learn-ing to occur, the learner must interact with the social environment on an inter-personal level and undergo the process of internalization (Verenikina, 2003) that leads to cognitive development (Anastasia, 2016). To advance his theory, Vygotsky conceived the construct of the zone of proximal development (ZPD), which refers to the gap between what the learner can do with and without guidance (Verenikina, 2003) from a more knowledgeable other (MKO) such as a peer or an adult. Within the ZPD, where learning is guided or facilitated by a MKO with or without the use of technology (Anastasia, 2016), the learners are led to mastering the concept/ process or skill that they are learning until they become independent and the scaffolding is totally removed (Bunyakarte, 2010).

The current study draws from the Sociocultural Theory through its emphasis of the usage of systematic guidance in conducting the lesson as well as that of So-cio-Cognitive Theory by leveraging on the use of simulations as the means of elu-cidating and remediating students' alternative conceptions.

These constructivist theories are also in consonance with the underlying conceptual development perspective (Carey, 1985; Vosniadou, 1991, 1999, 2003; Vosniadou & Brewer, 1994; Vosniadou, Skopeliti, & Ikospentaki, 2004 as cited in Trundle & Bell, 2009) that this study is based on. Within this perspective, conceptual change is seen not as an abrupt process but rather a gradual, time-consuming pro-cess that goes deep into students' alternative conceptions called naive physics (Vosniadou, 2002). According to Vosniadou (2007), for students to understand sci-ence concepts their naïve, intuitive theories about the physical world must be re-structured through the process of conceptual change. Trundle & Bell (2009) sum-marized the conceptual development viewpoints listed below that were expressed by Vosniadou (1994, 1999, 2002, 2003):

- 1. Students' preconceptions are possibly formed even before formal school-ing.
- 2. Their preconceptions may enable or impede learning because they have the tendency to be structured, intelligible, and very resilient to change.
- 3. The conceptual change process may take so much time to be fully real-ized.
- 4. Conceptual change is not only affected by cognition but may also be af-fected by students' "beliefs, motivation, learning attitudes, and sociocul-tural contexts."
- 5. Certain alternative conceptions in science are frequently held to be com-mon among different populations among people with different age groups, abilities and race.

In order to facilitate the conceptual change process according to the social constructivist and conceptual development perspectives, there must an appropriate instructional intervention that will be employed that is suitable to the kind of learn-ers. Knowing that the learners of today are digital natives who have started using technology since they were very young, it is imperative that science teachers inte-grate appropriate technology in physics instruction. In the Philippines, this is articu-lated in the K to 12 curriculum from Kindergarten through Grade 12 to achieve an engaging, effective, and efficient instruction (Department of Education, 2016). At present, many schools already integrate technology in the classroom and allow stu-dents to use their own devices (e.g., tablets, smartphones and laptops) during the teaching and learning process. One of the technological tools that teachers can in-tegrate in their lessons to induce the conceptual change process is the computer simulation.

Interactive computer simulations motivate learners into active involvement with the content and afford them opportunities to build their own understanding of scientific ideas based on their prior knowledge (Wieman, Adams, Perkins, 2008). Simulations are deemed to be effective or even more effective in cultivating the conceptual understanding of students as compared to the use of other strategies using the real apparatus, reading materials, and lectures (Finkelstein, Adams, Kel-ler, Perkins, Wieman and the Physics Education Technology Project Team, 2005). Furthermore, studies based on empirical data show the positive impact of computer simulation in supporting conceptual understanding (Finkelstein, et al., 2005; U^{\circ} len, C $\dot{}$ agran, Slavinec, & Gerlic, 2014) and in fostering conceptual change (Tao & Gunstone, 1999; Trundle & Bell, 2009, Windschitl, 1995).

Computer simulations may also be used to create cognitive conflict to indi-vidual learners or in a group setting (Davis, 2001; Mirana, 2016). Moreover, the use of computer simulations as an alternative instructional tool guide students in over-coming their cognitive limits and develop an understanding of physics that is func-tional (Jimoyiannis & Komis, 2000). For instance, PhET simulations were intended to link students' daily conceptions of the world and the corresponding essential principles in physics (Wieman, et al., 2008). However, the use of computer simula-tion does not automatically guarantee that conceptual change will occur.

Appropriate support should be provided to students when using computer simulation to guide them to restructure their preconceptions and develop the accepted conceptions in the scientific context. Accordingly, in a constructivist learning environment the use of simulations necessitates an appropriate structure and assis-tance from an adult or a more knowledgeable peer. In fact, based on research, in-structional help during the use of simulation such as asking students to prove a hy-pothesis, offer interpretations, and give assignments may be beneficial (de Jong & van Joolingen, 1998; Swaak & de Jong, 1996). Since simulations are designed to simply model the system it is designed without considering the prior knowledge of the learners. Thus, many educational researchers (de Jong & van Joolingen, 1998; de Jong & Njoo, 1992; Njoo & de Jong, 1993; Rieber, 1992) argue that the use of simulation must be complemented with an appropriate guidance to aid students in overcoming difficult parts of the leason.

Similarly, Trundle & Bell (2009) have concluded in their study that it is not enough to provide computer simulation to students but rather sufficient considera-tion must be given to the support and model of instruction that will be used in the learning process. In addition, many researchers (Chang, Chen, Lin & Sung, 2008; Njoo & de Jong, 1993; Yaman, Nerdel & Bayrhuber, 2008) were led to develop ap-propriate support for instruction with the use of computer simulation. Moreover, Mathayas, Brown, and Lindgren (2016) highlighted the need for more research on the forms of guidance provided to learners using simulations since they found in their study that appropriate guidance in the use of simulation can create a significant difference to student learning.

Current research literature suggests that studies that investigate the guided use of computer simulation in teaching kinematics graphs are insufficient. In order to help fill this research gap, this study aims to investigate the effect of the guided use of computer simulation in a constructivist learning environment in facilitating students' conceptual understanding of kinematics graphs in motion in one dimen-sion. The conceptual understanding of kinematics graphs is deemed important in studying physics because

it provides basic foundation for understanding other are-as in physics. Through this study, it will be determined if the conceptual change process is possible with the use of the activity guide and class interaction anchored on Piaget's Sociocognitive Theory and Vygotsky's Sociocultural Theory.

METHODOLOGY

RESEARCH AIMS AND QUESTIONS

This study aims to investigate the effect of guided use of computer simulation in a constructivist BYOD learning environment in facilitating Grade VII students' conceptual understanding of kinematics graphs of motion in one dimension.

Specifically, this study intends to answer the following research questions:

- 1. What are the prevalent alternative conceptions on kinematics graphs of motion in one dimension of students taught using traditional instruction and with the guided use of computer simulation?
- 2. What are the changes in the identified prevalent alternative conceptions on kin-ematics graphs of motion in one dimension of students taught using traditional in-struction and with the guided use of computer simulation?
- 3. Is there a significant difference a) between the pre-test and post-test scores of the students taught with the guided use of computer simulation and students taught with traditional instruction and b) between the pre-test and post-test scores within the group taught with the guided use of computer simulation and the group taught with traditional instruction?

EXPERIMENTAL DESIGN

This study used mixed methods design to answer the research questions posed using quantitative and qualitative data. The quantitative data of this study was based on the quasi-experimental pre-test and post-test design to determine if the guided use of computer simulation on Motion in One Dimension could promote conceptual change of students' alternative conceptions to scientific conceptions. In the quasi experiment, two Grade VII sections were involved, one served as the con-trol group and the other as the experimental group. The control group was taught using the traditional approach, where the teacher was mainly transmitting knowledge to students using different means with and without the use of technolo-gy. In the experimental group, the students were exposed to the intervention: the guided use of simulation in a constructivist BYOD learning environment to promote conceptual change.

On the other hand, the qualitative data was taken from audio and video files of the

classes, class interaction and group work, focus group discussion, classroom observation guide, journal reflection, and interviews that were conducted with a sample of students who belong to the upper, middle and lower group of the experimental group.

PARTICIPANTS

The participants of this study were students from two sections out of the eight Grade VII science classes in a junior high school department of a private university in the Philippines. The selection of the experimental group was purposive in that the section with the most number of students with an available device (e.g., tablets, smartphones and laptops) that could be used to run the computer simulation was chosen. On the other hand, the control group was randomly selected from the re-maining seven sections. The two sections involved were composed of 78 students. The control group was taught with traditional instruction while the experimental group was taught using the guided use of computer simulation in a constructivist environment with school-owned computers and their own devices. The same amount of contact time of one hour every day was provided to both groups. Both were taught by the teacher-researcher who had 10 years of experience at the time the study was conducted. To limit the researcher's bias, a lesson plan detailing the class encounter was used during the implementation process. Selfmemoing was also conducted to trace the thinking process of the researcher and to document the alternations in both lesson content and teaching practices that occur in the class-room as a result of these changes.

PROCEDURE

The guided use of computer simulation (using The Moving Man PhET simula-tion) instructional intervention was implemented to the experimental group during the third grading of SY 2017-2018 that lasted 20 days only due to the typhoon that hit the area. With this intervention, students made use of The Moving Man PhET simulation to develop conceptual understanding of kinematics concepts and kine-matics graphs of motion in one dimension. Of the twelve learning activities con-ducted during the research process, five required paired students to make use of the computer simulation. Using the activity sheets, the students' prior conceptions were elicited and were used as a starting point towards the development of scientific conception. Then, the learners were made aware of their own conceptions and the conflicts that these conceptions had with the scientific conceptions. After this, they were guided in their assimilation of the new knowledge to develop the accepted, scientific conception. Moreover, students in this group were asked to an-swer daily reflection on salient parts of the activity sheet and interaction with the teacher, classmates, and the computer

simulation that contributed to any changes in their conceptions about the lesson.

On the other hand, the control group learned the lesson with the traditional instruction, where the teacher was mainly transmitting knowledge to students using different means with and without the use of technology. Similar to the experimental group, students in the control group also had twelve learning activities, seven of which were exactly the same with the activities in the other group. In lieu of the ac-tivities that required the guided use of computer simulation, students in this group conducted activities that made use of the traditionally used laboratory activity, prob-lem-solving, and seatwork about the lesson. In addition, they depended on what were presented by the teacher through the PowerPoint Presentation during class interaction.

Before the implementation, pre-test using a Kinematics Concept Test was administered to all student participants from both the control and experimental groups and an interview was conducted to six key respondents from the experimental group to validate their answers and justification in the pre-test. During the implementation, the science class of the experimental group was held in the Com-puter laboratory in the university when they needed to use the computer simulation installed in desktop and in the science room in the junior high school campus if they did not need to use the computer. At the end of the intervention period, a posttest was administered to all student participants. Prior to, during and after the inter-vention, selected students from the experimental group were interviewed to describe the classroom interaction they had with their classmates and the instructional mate-rial. After gathering all necessary data, analysis and interpretation of results were conducted.

DATA COLLECTION

In this study, data on students' conceptions were gathered before and after the instructional intervention was conducted to account for the changes in the con-ceptions of the participants.

A kinematics concept test was administered to the participants in the control and experimental groups before and after instruction. This test is composed of 10 items in a twotier multiple choice test. The multiple choice part is composed of 10 selected items from Beichner's (1994) Testing of Understanding Graphs in Kinemat-ics (TUG-K2) for High School. The first tier of each item consists of a multiple-choice question having five choices that include the correct answer and distracters based on alternative conceptions accounted in the literature and the second tier of each item asks for the justification of their choice to validate their conceptions.

Audio-recorded interview of two representatives from the low, average, and high performing students in the experimental group was also conducted before, during and after the instructional intervention was provided. The audio records of all interviews were transcribed.

DATA ANALYSIS

In analyzing the quantitative data, students' responses from the pre-test and post-test were analyzed using percentage with respect to the total number of student par-ticipants to determine the proportion of those who answered the alternative concep-tions. The responses chosen by at least 25% of the students in each group were considered to be prevalent. The means and standard deviations that were obtained from the pre-test and post-test scores were compared for the experimental and con-trol groups. To determine the effect of the instructional intervention with the guided use of computer simulation, paired t-test, dependent and independent samples t-test were used to determine whether significant differences exist in the pre-test and post-test scores within and between groups, respectively. All statistical tests were conducted with a significance level of $\alpha = 0.05$. For results with significant difference indicated by the t-test, the effect size was determined using Cohen's d.

The qualitative data that were gathered from the justification of their answer in the pretest and in the interview of key respondents were transcribed and/or summarized and coded by the researcher using thematic analysis (Creswell, 1998).

FINDINGS

Prevalent Alternative Conceptions (PACs) on Kinematics Graphs of Motion in One Dimension

Table 1 shows the responses of students in the pre-test corresponding to their alternative conceptions that were considered prevalent. As shown in the table, a total of 14 choices in the students' responses in the control group and in the ex-perimental group were prevalent alternative conceptions (PACs).

TABLE 1.

Percentages of students' responses showing the PACs in the TUG-K2 of the control & experimental groups

Test item & choice	% of Students' responses			
corresponding to the PAC	Control group	Experimental group		
1B	34.2	31.6		
1C	52.6	42.1		
2C	28.9	10.5		
2D	26.3	13.2		
2E	34.2	44.7		

3D	78.9	47.4
4A	34.2	31.6
4D	39.5	47.4
5A	47.4	39.5
5C	34.2	34.2
6A	78.9	65.8
7A	21.1	26.3
7E	42.1	39.5
8A	68.4	68.4
9D	68.4	57.9
10C	78.9	65.8

Among these prevalent answers, only choices 9D and 10C were correct answers. Moreover, the interviews revealed that students answered these items by merely considering the height of the graph, which was not applicable all the time. For instance, most students answered number 3 the same way they did as in num-ber 9 since both items had the same question and choices with different kinematics graphs. These items revealed that students simply looked at the height of the graphs without looking at the physical quantities in the graphs.

Correspondingly, all of these choices that were prevalent as well as the justi-fication of their choices in the pre-test appear to conform to the existing literature on alternative conceptions in kinematics graphs (Beichner, 1994; McDermott, et al., 1987; Reddy, 2016). Based on the literature, four identified alternative conceptions matched the prevalent alternative conceptions of students according to their an-swers in the pre-test as shown in Table 2.

TABLE 2.

Distribution of the PACs in the TUG-K2

AC	Items in the Test Revealing the AC
1. Kinematics graph is interpreted based on its visual description (Reddy, 2016).	1B & C, 2C & E, 4A, 7E, 8A, & 10C
2. The kinematics graph is considered similar to the photograph of the situation (Beichner, 1994).	2D, 4D, & 5C
3. The slope of a kinematics graph at a certain point is simply equal to the height of the graph at that point (Beichner, 1994).	3D & 9D

4. Kinematics graphs of displacement, velocity, and acceleration are identical (Beichner, 1994).

5A, 6A, & 7A

As shown in Table 2, these identified alternative conceptions are revealed in students' choices in the pre-test. This shows that these alternative conceptions cited in literature are also common among the student participants in this study.

Changes in the Prevalent Alternative Conceptions in Kinematics Graphs of Motion in One Dimension

The changes in the prevalent alternative conceptions in kinematics graphs of motion in one dimension of students in the control and experimental groups are in-dicated by the changes in the percentage of students' answers of the items that re-veal these conceptions during the pre-test and post-test as shown in Table 3.

TABLE 3.

Percentages of students' responses showing the PACs in the TUG-K2 of the control & experimental groups in the pre and post-tests

	Test Item	% of Students' Response				
PAC	& Choice Corresponding to _	Contro	l Group	Experimental Group		
	the PAC	Pre	Post	Pre	Post	
	1B	34.2	21.1	31.6	28.9	
	1C	52.6	13.2	42.1	7.9	
	2C	28.9	28.9	10.5	23.7	
1	2E	34.2	7.9	44.7	2.6	
	4A	34.2	44.7	31.6	26.3	
	7E	42.1	31.6	39.5	21.1	
	10C	78.9	81.6	65.8	71.1	
2	2D	26.3	18.4	13.2	15.8	
	4D	39.5	15.8	47.4	13.2	
	5C	34.2	28.9	34.2	31.6	
3	3D	78.9	44.7	47.4	42.1	
	9D	68.4	65.8	57.9	68.4	
4	5A	47.4	39.5	39.5	31.6	
	6A	78.9	39.5	65.8	28.9	
	7A	21.1	21.1	26.3	21.1	

49

As shown in Table 3, the following pre-test choices were no longer prevalent in the post-test: 1 B & C, 2 D &E and 4 D for the control group while 1 C, 2 C & E, 4 D and no. 7 A & E for the experimental group. A total of 9 out of 14 prevalent pre-test choices remained prevalent in the post-test of the control group while 8 out of 14 in the experimental group. This is attributed to the percentage of students who initially answered a certain alternative conception but changed to another alternative con-ception in that item and those whose conceptions remained the same, which is consistent with existing studies that said that alternative conception (Vosniadou, 1994, 2002). These results show an inconsistency with the conceptions of students on kinematics graphs in both the control and experimental groups as reflected in their answers to the items that revealed each of the four conceptions in the post-test.

TABLE 4.

	_	% of Students' Response				
ltem No.	Correct Answer -	Contro	l Group	Experime	Experimental Group	
	7	Pre	Post	Pre	Post	
1	E	10.5	65.8	18.4	55.3	
2	В	7.9	47.4	21.1	57.9	
3	С	13.2	34.2	21.1	31.6	
4	С	0.0	18.4	0.0	50.0	
5	D	2.6	21.1	2.6	18.4	
6	В	7.9	52.6	18.4	57.9	
7	С	18.4	26.3	7.9	44.7	
8	С	5.3	13.2	5.3	31.6	
9	D	68.4	65.8	57.9	68.4	
10	С	78.9	81.6	65.8	71.1	

Percentage of students in the control & experimental groups with correct answers in the TUG-K2 in the pre and post-tests

The prevalent alternative conceptions remained even after instruction, alt-hough there was a decrease of the percentage of students' responses that corre-spond to the prevalent alternative conceptions in both groups which translates to the increase of students who answered the scientific conception in the post-test. This implies that students have developed the scientific conceptions as reflected in the general increase of percentage of students who answered correctly in both groups as shown in Table 4. In both groups, the correct answer has become prevalent for post-test item numbers 1, 2, 3, 6, & 7 and remained prevalent for 9 and 10. However, their scientific conceptions were not fully developed yet because students in both groups did not consistently answer correctly all the items that revealed the same

alternative conception. For instance, they obtained one item correctly but, in another item, the alternative conception prevailed over the scientific conceptions that have been developed in them. In other words, their scientific conceptions were still limited. Finally, the alternative conceptions proved to be prevalent and recurrent in their conceptions.

Comparison of Pre-test and Post-test Scores

The significant differences of the pre-test and post-test scores within and be-tween the experimental and control groups were determined using paired samples t-test and independent samples t-test. All statistical tests were conducted with a sig-nificance level of $\alpha = 0.05$.

Comparison Within the Control and Experimental Groups. The means of the pre and post test scores of students within the control and experimental groups were compared and treated using paired samples t-test. Table 5 displays the t-test results showing that there was significant difference within the experimental and control groups.

C	Pre-test		Post	Post-test		
Groups -	М	SD	М	SD	- t-value	p-value
Experi- mental (n=38)	2.87	1.14	5.74	3.08	2.03*	<0.001
Control (n=40)	2.58	1.13	4.88	1.81	2.02*	<0.001

TABLE 5.

Comparison of mean scores in the pre-test and post-test within group

*Statistically significant ($\alpha = 0.05$)

These results imply that instructional intervention used in the experimental group and the traditional instruction used in the control group are both effective in improving the performance of students in the concept test. Further, the Cohen's effect sizes for the control group (d=1.5) and the experimental group (d=1.2) are large. Considering that both groups had different instructions conducted by the same teacher on the same lesson, this result can be accounted to the important role that the teacher played as what Vygotsky called as the MKO or the person who has more knowledge and skill than the learner in both groups. This was also pointed out in the daily reflection of students who identified the interaction with the teacher, among others, that affected their conceptions.

Comparison Between the Control and Experimental Groups. The means of the pre and post test scores of students between the control and experimental groups were compared and treated using independent samples t-test. Table 6 dis-plays

the t-test results showing that there was no significant difference between the pre-test and post-test scores between the control and experimental groups.

TABLE 6.

Comparison of mean scores in the pre-test and post-test between groups

Measure	Measure Groups		SD	Df	t-value	p-value
Pre-test	Experi-mental (n=38)	2.87	1.14	76	1.99	0.26
	Control (n=40)	2.58	1.13			
Post-test	Experi-mental (n=38)	5.74	3.08	76	1.99	0.13
	Control (n=40)	4.88	1.81			

The result implies that at the beginning, both groups are equivalent in their initial conceptions and that no group was superior to the other. The low mean scores of both groups imply that they both have little to completely missing scientific prior knowledge about the kinematics concepts and the kinematics graphs involved in the test. Therefore, in consonance with Damon's theory (1984 as cited in Palinscar, 1998) on the sociocognitive conflict that learners undergo, this study suggests that this could be achieved through the help of a more skillful and experi-enced person, such as the teacher. Furthermore, findings in this study suggests that students' conceptual understanding was developed not only with the concep-tual change process but also with the new knowledge gained from the teaching-learning process.

In the post-test, there was no significant difference between the experimental and control groups as shown in Table 6. The result demonstrates that both the in-tervention with the guided use of computer simulation and the traditional instruction were equally effective in facilitating students' conceptual understanding although the experimental group registered a relatively higher numerical mean compared to the control group. This result is in accordance with the findings of related studies in the past (Bakac, Kartal Tasoglu, Akbay, 2010; Karamustafaoğlu, 2012; Smetana & Bell, 2012).

CONCLUSION

This study revealed that the guided use of computer simulation had an aver-age effect in facilitating students' conceptual understanding of kinematics graphs in motion in one dimension although it did not prove to be superior to the traditional instruction. Students' conceptual understanding of kinematics graph in motion showed improvement after the intervention although these conceptions have not reached the desired level of understanding. Further, their alternative conceptions remained prevalent after the intervention was conducted. In this particular group of students and for this particular topic, i.e., kinematics graphs in motion in one dimen-sion, the guided use of computer simulation was found to be as equally effective as the traditional physics instruction.

IMPLICATIONS AND RECOMMENDATIONS

The study has implications in teaching science topics using computer simu-lations specifically on the role of the teacher and the initial conceptual state of the student. For the teacher, it is imperative that the guidance provided consider the de-tails of all associated interaction processes. This may mean an adequate knowledge of common alternative conceptions of the learners and sufficient skills in formulat-ing questions and comments that are both developmentally-appropriate and well-directed towards the desired scientific conception. With regard to the students, the current intervention seemed to be affected by the degree of students' baseline knowledge of the key concepts. A direct implication in practice would be that the guided use of computer simulation is not suitable for use in introductory lessons but may be more useful in facilitating intermediate or advanced understanding of the lesson when the learners have already a sound understanding of the basic or fun-damental concepts.

As the study poses the possible role of baseline conception of students in ef-fecting conceptual change, an additional inquiry on the extent of students' initial knowledge base vis-à-vis the likelihood of completing the conceptual change pro-cess may be valuable. Further, a longer implementation of the guided use of com-puter simulation may also be conducted to ascertain the effect of this approach to a number of constructs that may include student retention, familiarity of practice, and suitability of lesson topics among others.

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GUIDED USE OF COMPUTER SIMULATION IN A CONSTRUCTIVIST BRING YOUR OWN DEVICE (BYOD) LEARNING ENVIRONMENT IN FACILITATING STUDENTS' CONCEPTUAL UNDERSTANDING OF KINEMATICS GRAPHS

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ret ro·spec·tion | \ ,re-tra-'spek-shan : the act or process or an instance of surveying the past -Merriam-Webster

WHAT TO DO IF THE AIRWOLF DOESN'T FLY

RENELITO C. CABALLO

Inever wanted to be a teacher. When I was growing up, all I wanted was to fly the Airwolf, the famous helicopter from the 1980s American TV series of the same title.

The Airwolf was the most awesome combat chopper at that time. It was capable of flying amazingly high altitudes at supersonic speed, had stealth technology and carried weapons that were accurate and deadly. Flying the Airwolf, for me, was the epitome of speed and adventure. What made the Airwolf more awesome was the fact that it was secured in a hidden hangar on the side of the cliff of the Grand Canyon. Everytime I watched the Airwolf zoom out from the side of the cliff, I imagined myself piloting it, all the while looking down at the scenic canyon below.

I then envied the actor Jan-Michael Vincent for manning the controls of this chopper when it should have been me. God, it should have been me!

I didn't get to fly the Airwolf, but I got the next best thing. I became a teacher.

Fate must have destined me to become a teacher. After high school graduation,

I got recommended for a scholarship (PESFA); among the courses to choose from were Engineering, Nursing, Teaching. I pursued Bachelor in Secondary Education major in English, feeling it was perfect perquisite for my second childhood dream of becoming a lawyer (as influenced as well by the then famous TV Series Perry Mason).

I started teaching soon after graduating from college. I first taught in St. Louis School – Don Bosco from 1993-2007. After fourteen years with the Salesians, I transferred to Silliman University High School (SUHS). Very soon, I found myself slowly seeing the fulfillment of my life's dreams and aspirations. On my second year of teaching in SUHS, I got recommended to a program in the US – The International Leaders in Education Program (ILEP). I was one of 12 teachers from all over the country who left for Washington DC in January of 2010. I got my Leadership in Education and Technology in the Classroom crashed courses at the University of Minnesota Twin Cities Campus in Minneapolis, MN, USA, during the entire Spring Term of the same year.

The International Leaders in Education Program (ILEP) provides international

teachers with an opportunity to enhance their teaching skills and increase their knowledge about the United States. ILEP offers semester-long professional development opportunities at US universities. The program consists of academic seminars on leadership, curriculum development, lesson planning, instructional technology, and new teaching methodologies. ILEP includes a practicum with a US partner teacher. The program provides cultural enrichment, mentoring, and support.

The ILEP experience was truly life-changing for me. My teaching experience in US classrooms gave me opportunities to engage my learners in varied student-centered activities and authentic assessments. I would never forget that moment when my students at Washburn Senior High were wowed by my singing in class the song Somewhere (from West Side Story) as a synthesis of the novel The Fire Within. Seeing some of my students teary-eyed and breathless made me feel so accomplished and proud as a Filipino teaching English in America. That for me was such a confidence booster.

My leadership course where my classmates during the entire term were all aspiring principals and education supervisors did not only equip me as an ILEP fellow, but also inspired me to expand my horizon and extend my service beyond the classroom. The Technology course also enhanced what little skills I had then with teaching and learning with technology and the Internet. I then learned to use blogs, talking Avatars, social media, among others, as useful instructional tools.

Six months later, I came home with the burning desire to get back to Silliman High and touch and shape more lives. Shortly upon my return, I decided to go back to grad school to pursue my Master in Educational Management. Later, I got invited to teach part time at the College of Education. At first, I declined the invitation saying, "My fulfillment is teaching young high school minds and hearts in the classroom, not older college students." However, one of my mentors at the College of Education told me that "it may be much more fulfilling to produce teachers." I didn't want to admit it at first, but I found myself enjoying teaching Developmental Reading and Principles and Methods of Teaching. I felt I was in perfect position to teach and share with aspiring teachers the practices and experiences I had as teacher not only in the Philippines but also in the US as an ILEP fellow.

My scholarship to the US and later, my appointment as OIC director of the College of Education Center for Excellence in Learning, Teaching and Assessment (CELTA) were highlights of my career. But there are also other things that I hold just as dear. One of these is my job as a Student Teacher Mentor (STM). Perhaps, this experience gave me the most fulfilling experience as a teacher. Although I encountered countless challenges as an STM, I never felt happier seeing the student teachers practice what they have observed in my class.

These experiences prepared me for yet another opportunity that came to me as high school teacher at SUHS. In 2014 and 2015, when Silliman University was designated as

a service provider for DepEd, I became a regional trainer for the implementation of the K-12 Curriculum. The experience widened and deepened my pedagogical knowledge and skills, and boosted my desire to teach the curriculum according to its mandated standards and expectations. Moreover, in 2015, I became part of the Private Education Assistance Committee (PEAC) pool of national trainers for Designing, Assessing, and Facilitating Learning for the K-12 Curriculum Standards. This engagement broadened my sphere of influence as I got the opportunity to train more teachers all over the country during the regular Summer In-service trainings. Training teachers for DepEd and PEAC became a way for me to put into action the teaching and learning insights and approaches that I learned from the leadership in education crashed courses at the University of Minnesota mentors as an ILEP fellow.

In June of 2018, I got appointed as the Curriculum and Training Coordinator of the Office of Instruction. Upon the recommendation and approval of the Office of the Vice President for Academic Affairs and the Office of Instruction, the primary role of the Curriculum and Training Coordinator is to raise and keep the teaching and learning standards in the School of Basic Education through a wide range of strategies.

These opportunities to serve - not only within the confines of the classroom but even beyond - all stemmed from my life-changing experience as an ILEP Fellow in the US. To top it off, not only did I get to train there, I also got to see the Grand Canyon. Too bad the Airwolf was not there.

My stint as an ILEP Fellow may have been short, but it was enough to fire me up to explore, expand, and serve. The training I got there made me a better learner, a more engaging teacher, and a more effective mentor through the various teacher trainings that I facilitated.

At present, I remain faithful to my commitment to shape young minds and hearts and bring out the best in them. Of course, I still dream of flying the Airwolf, but I am just as happy journeying with my students to uncharted parts of the universe through the daily exciting adventures we share in the classroom. It would have been great if I became an Airwolf pilot, but having navigated through the many opportunities and challenges that were afforded to me as a high school teacher at Silliman University, I believe I have indeed become the pilot that I have long wanted to become. Having taught for more than 25 years, I have become the Captain of my Airwolf.

INTO THE HEART OF AMERICA: A TRAVELOGUE OF DREAMS, MEMORIES, AND EPIPHANIES

HANZ DENZIL VILLAHERMOSA

When we are at a crossroad, life has an interesting way of telling us which path to take. May it be a life changing decision, a seemingly insurmountable challenge, or a sweet surprise - at this crucial moment in our lives we often find ourselves questioning where we really want to go and who we truly want to become. I knew I had always wanted to be a teacher, but I also knew that I had always wanted to venture out and extend my reach beyond the perimeter of a classroom. Beyond the routines of a regular classroom teacher, I envisioned putting up my own non-profit organization that recognizes the potential of every young individual, hones their skills, mobilizes their dreams, and introduces them into a world of selfless service.

At some point, that dream to me was a castle floating in the air, until that one message I received in the morning of December 13, 2016 that changed everything. I got accepted as one of the Philippines' delegates for the YSEALI Spring 2017 Academic Fellowship for Civic Engagement at the University of Nebraska-Omaha.

FUNDAMENTALS: YSEALI ACADEMIC FELLOWSHIP

The Young SouthEast Asian Leaders Initiative (YSEALI) Academic Fellowship is a State Department program that brings together 21 young and vibrant leaders from across 10 ASEAN countries into the United States for a 5-week intensive academic fellowship in Civic Engagement, Environmental Conservation and Awareness, or Socio-Economic Entrepreneurship. The fellows, who are proactive leaders in their own communities undergo a specific academic program streamlined to focus on how a YSEALI pillar operates in the United States. It aims to equip young leaders to gain a better understanding of social issues and problems and on how to address these issues through intercultural and regional collaboration. The fellowship gives them the necessary skills and knowledge so they could come up with concrete projects as soon as they return to their respective communities. Furthermore, it aims to foster an empowered network of advocates who

will hopefully work together towards a better and progressive South East Asia.

THE BEGINNING...

All my life I have always been on the go. My college years were a whirlwind of experiences that molded me to become multifaceted and versatile. My academic training in Silliman University equipped me to become the teacher I always aspired to be. My experiences in the performing arts opened my mind to the bliss of creativity and the beauty of self-expression. My exposure to various leadership opportunities and community service became platforms for me to see the realities of the world on clearer lens. All of these contribute to the totality of who I am and what I envision as an active youth leadership development advocate in my community since 2013.

So, how did I get into the program? Simple – Technology, Facebook to be specific. A month after I graduated college, I was employed as an Editorial Assistant at the Office of Information and Publication in Silliman University. Because I had to write news and feature articles about events and accomplishments of Sillimanians near and far, I wrote about Mr. Raffy Cabrisante, a Sillimanian and an active fellow of YSEALI who was, at that time, given the distinction as a YSEALI Mentor. To write the article, I had to research on the program. I subscribed to their official Facebook page so I can get access to the basic information about the entire organization and its rationale and purpose. Never in my wildest imagination did it occur to me that a single click of the "follow" button would open the door to a life-changing experience for me two years later.

On the 11th day of March 2017 I found myself on an 18-hour flight to the city of Omaha, Nebraska together with two other Filipino fellows, Leo Aribal of Bukidnon and Alex Baldia of Cagayan de Oro. On the last remaining minutes of the flight, as the plane started to make its descent and as the city lights started to dawn my vision, I found myself getting extremely overwhelmed by the fact that I was about to set foot on the United States of America - a dream that I never imagined happening sooner.

THE MIDDLE...

Nebraska, the Cornhusker State, is located at the heart of the United States of America. It is one of the "less popular" states in the US simply because people usually refer to it as "middle of nowhere Nebraska" where nothing much happens except corn-growing and ranching. It is one of the least populated states and is infamous to having one of the most number of deadly tornadoes in a year because of its landscape and topography. Knowing all these beforehand, I told myself not to dwell too much on preconceived expectations. Instead, I focused on what I can possibly get from this once in a lifetime opportunity.

INTO THE HEART OF AMERICA: A TRAVELOGUE OF DREAMS, MEMORIES, AND EPIPHANIES

As days turned to weeks, all these perceptions about Nebraska became nothing but pure myth. My experience was life-changing. It was so much more than I ever thought it would be. We spent the first few days of our stay in Nebraska exploring and navigating the city of Omaha, the biggest and most progressive city in the state. As I eased myself from the jetlag and as the place started to make sense to me, I started to perceive a familiar feeling - a feeling of home. Omaha resonated a laidback aura, known for its wide, open spaces that create a landscape of tranquility. The olive green grasses and the towering trees invigorated by the birth of Spring and the gentle, solicitous citizens who never fail to flash a kind smile help make the city very livable and relaxing.

However, the city of Omaha, just like any other city in the world, is not picture perfect. Together with the city's multifaceted progress is the escalating concern of the city's issue on race segregation on specific parts of the city. Since Nebraska is home to one of the biggest refugee camps in the US, racial groups tend to live only in a specific area in the city, fostering a societal divide and hindering the vision of a closely-knit cross-cultural integration in the city. Despite this alarming situation, there are sparks of hope that have sprouted within the city. In the heart of the many initiatives among the city's non-profit organizations lie small, yet significant efforts that aim to fully break the stigma of division and segregation that is tainting the city's reputation.

One of the most significant highlights throughout my whole academic fellowship experience was when we volunteered in a non-profit organization that serves the homeless in Omaha. We spent the entire day helping out and learning from the founders and the volunteers themselves. We had various volunteer initiatives during our stay to maximize the immersion aspect of the program. We participated in the UNO Spring Break Day of Service, assisted in the outreach program of the Community Action Partnership Western Nebraska Youth and Health Center, did several Round Table and Panel Discussions on Child Abuse, Neglect, Empowerment, Education and Homelessness together with key entities and officials of Nebraska and visited various institutions, museums and schools around the State.

Furthermore, we had intensive academic lectures and sessions with some of UNO's best professors in the fields of service learning and intercultural understanding. A standout moment to me was when we were immersed in an International Affairs class together with college students of the University of Nebraska-Omaha. We were tasked to come up with a cultural presentation to convince the students to travel and visit our countries. It was a meaningful activity that resulted to a very interactive and fruitful discussion.

Most importantly, the most beautiful aspect of this fellowship is the opportunity to forge lasting friendships with 20 other fellows from different SEA countries. In fact, for the project proposal that we had to present at the State Department, I had the chance to work with a fellow, Nadiah Lateb, who is an elementary teacher in Malaysia. We decided

H. D. VILLAHERMOSA

to conceptualize a project called "The Paper Plane Project" that aims to create a holistic framework for youth leadership development. I am proud to say that the project is now on its initial stage of planning and module-making.

Out of all the batches of academic fellows deployed in the Spring of 2017, we had the most interactive and diverse program and even had the most number of travels throughout our five weeks in Nebraska. Our stay in Nebraska was truly worth it. We got to watch a musical play, visited the world-renowned Henry Doorly Zoo and Aquarium and went "bobbing" at the Bob Kerrey Pedestrian Bridge that separates the States of Nebraska and Iowa. After spending 3 weeks at the University of Nebraska-Omaha, we did a road trip to the westernmost side of the state and visited the beautiful and serene towns of Scottsbluff and Gering. After spending 3 days away from the city under the care of our foster parents, we drove to South Dakota to visit the historic Mount Rushmore. We bid goodbye to Nebraska and flew to Portland, Oregon a week before we were to present our project proposals at the State Department at Washington, D.C.

BUT NOT YET THE END...

Throughout the program I realized two general, significant points:

- In order to see the realities of the world in a better light, we need to look inside the box, and then look at the same box from the outside. Having the opportunity to study in the United States and glean from the country's best practices in community service gave me a better understanding of the problems we ceaselessly try to combat. The 5 weeks we had helped me fully understand the contexts of community work and service learning. It opened my mind to innovations and more relevant ways in analyzing issues that affect the younger populace. The program made me a more informed advocate – an advocate not only by heart, but also by mind.
- 2. Cross-cultural and regional collaboration is powerful. The issues we aim to solve are not isolated cases, they are issues that are universal in nature. May it be in the Philippines, Indonesia, Thailand or the United States, there are people who suffer from poverty, discrimination, harassment, neglect, and the lack of opportunities. It is time for people, especially advocates for change, to realize that the best way to solve these issues is to create a strong network that fosters a strong force of change. It was in this program that I got to appreciate the beauty of intercultural collaboration and understanding. The program deepened my understanding that beyond the differences we have in culture, religion, traditions and beliefs, at the very core of our beings, we are all human and we all aspire for the same things peace, love, prosperity.

INTO THE HEART OF AMERICA: A TRAVELOGUE OF DREAMS, MEMORIES, AND EPIPHANIES

As I arrived at the last stretch of that five-week stint, I realized that it was not the end. Instead, the end of that journey marked the beginning of an even greater battle. As I came back to Dumaguete City and continue this adventure as a junior high school teacher at Silliman University, I felt a renewed sense of vigor and purpose. I became even more passionate about making a difference.

I am halfway through this journey, but I am still far from completing it.

WHEN EXPECTATIONS MEET REALITY: MY FULBRIGHT FOREIGN LANGUAGE TEACHING ASSISTANTS (FLTA) EXPERIENCE

BEA MARA L. ZAMORA

In March 2015, Dr. Esmeralda Cunanan, the former Executive Director of the Philippine-American Educational Foundation (PAEF)/Fulbright Commission in the Philippines, visited Silliman University Junior High School to present the various Philippine Fulbright and Non-Fulbright programs. She asked who among us are qualified for any of the programs and are willing to apply. I raised my hand not because I was interested to get the application details but because I was excited to get the freebies that she was handing out. I knew Fulbright is a prestigious scholarship grant and applying for it never crossed my mind.

A few days later, I received two emails. One was a general message of thanks to everyone who attended her presentation and the other was a personal message with the online application link for the Fulbright Foreign Language Teaching Assistants (FLTA) Program, a full scholarship program funded by the Bureau of Educational and Cultural Affairs (ECA) at the United States Department of State. Founded in 2001, FLTA was designed for English language educators from more than 50 countries to share their language and culture as they assist in the teaching of over 30 languages in hundreds of colleges and universities across the U.S. Through this program, foreign teachers are given "the opportunity to increase their English language proficiency, refine their teaching skills, and extend their knowledge of the culture and customs of the United States" (Fulbright-Foreign Language Teaching Assistant: Fulbright awards for Filipinos). FLTA was introduced in 2004 as one of the six Fulbright Philippine Programs and is offered to early career teachers. This program may be relatively new, but since its inception in 2001, around 1,800 English language teachers around the globe have travelled to the U.S. and stayed there for one academic year to gain first-hand teaching and learning experiences. While teaching in the US, FLTA fellows take classes in American studies and other classes they find useful in their career.

I submitted the application form with essays that talk about my background, qualifications for the program, how I can promote my culture in the US, and how the

program will help me in my long-term career goals. I was asked to take the Test of English as a Foreign Language (TOEFL), and was interviewed online by a panel from PAEF. It took around one year since I started with the application process until I received the confirmation that I was accepted into the program. When I got the good news, everything felt like a dream since I was informed in June that the departure was in the first week of August. I only believed that it was real when I was already in the pre-departure orientation the following week and I saw the contract.

After the predeparture orientation, I was so idealistic. Most of my expectations were simply positive. But millennials like me often engage in this thing called "expectations versus reality" and the usual scenario would be that our expectations are positive, but reality would be far from ideal. I had to face my own expectations versus reality check, during my stay in the U.S.

First, I thought that I was more of a scholar who will simply share about my culture and language to American students. Little did I know that I would be able to learn more about the Filipino language and our culture while I was there. I sat in Philippine-American History classes and English classes that use materials written by Filipino-American authors. We had a theater production class that talk about issues in the Philippines. I participated in workshops on how to write baybayin and talks about the history of Filipino food and our core values. At first, I felt a bit useless but I tried my best to figure out what else my students were curious about, and ended up sharing some Visayan words and even came up with a short talk about the history of the aswangs. In the Filipino class, I did tutorials at the library and shared how I learned Filipino as a second language.

Second, I thought everything will be "instant". But, while I'm used to driving my scooter here and be wherever I have to be, in the US, my patience was tested as I had to keep track of bus and train schedules. Here, hanging out with friends can be done in an instant but such thing was impossible to do there. Everything had to be scheduled ahead of time because everyone was bust with work. Through these experiences, I realized how blessed we are and how we should value our time and commitments.

Third, I thought they have the luxury of space since the U.S. is so big. So, I imagined that I would live in a house with a big lawn and a nice view from my window but I ended up living in a small room. I realized how high the cost of living was that my entire salary here in the Philippines would be barely enough for me to afford such a small bedroom. I saw that some families even had to live in a garage converted into a room. This reality taught me to value whatever little I have.

But life is not full of "expectations versus realities: the millennial way" all the time. As I began to mature, I became less idealistic, more realistic. When faced with the unknown, I boldly prod on with a newfound confidence in things to come. For example, when I was nearing my departure, this fear of the unknown made me think of the possible harsh

realities that I would soon experience, but to my surprise, I had a number of expectations that were totally different from my experience.

First, since I had to travel alone, I expected that I would be anxious the whole time. However, God answered my prayers and provided me with people who made me feel at ease.

Second, I thought I would be eating pizzas, burgers, and fries most of the time and I would miss Filipino food. To my surprise, I was a street away from the Pinoy Capital of the United States, Daly City. All I had to do was take a fifteen-minute bus ride to the nearest mall to eat sisig and adobo, or walk for a few minutes from my place to buy Filipino groceries at the Manila Oriental Market or Seafood City Supermarket, or dine at Jollibee or Chowking.

Third, as the name of our program states, Foreign Language Teaching Assistants, I was expecting that I would be assisting a Filipino class which might be hard since I am Visayan. However, I was lucky to be assigned to teach at Skyline College since I was exposed to other courses, which proved useful to me when I returned to teach at Silliman University Junior High School.

The point here is, our expectations may not always match our realities, but they will always teach us lessons. With my experience, I was able to learn not only how to teach a language and talk about my culture, but more importantly, how to be resilient and share the Silliman spirit. I was able to meet Sillimanians whom I have never met before and forged lasting friendships. In fact, a couple who I became second family to me decided to pay me a visit and later decided to retire here in Dumaguete. I also learned how to appreciate more of the things that I had enjoyed here as a student and have been enjoying as a teacher. I learned to have more faith in myself and more importantly, faith in God. I know that everything happened according to His plan. He opened my eyes to the realities of this world and see its beauty regardless of what the situation is.

The poem below sums up my expectations and realizations during my short stay in the U.S. This also answers the question that I usually get from people on why I would still love to stay in the Philippines.

To the woman in the mirror I see each day

Why? Why are you here? Why do you think you deserve to be here? Here in this giant tapestry That has interwoven the ideals and dreams of its citizenry.
You said you want to learn Of what makes America great And see if it's what your Motherland could earn at any rate. But, have you really seen that? Or you saw how two countries, So unlike in status and size Face similar hardships in front of their peoples' eyes?

You said you want to share your culture So that people here would appreciate And maybe visit the Philippine islands in the future. But have you really done your part? Or you only realized that you had to travel this far To learn more of your country and yourself While both of them were far apart?

To the woman in the mirror I see each day, For now I'll stop asking you and simply say, You may have a lot of doubts, fears, Troubles and anxieties But these are only signs That you still have to face certain realities, For this is not just about you and your capital I But WE, so never stop asking WHY.

Reference

https://fulbright.org.ph/scholarship-programs/fulbright-philippine-programs/fulbright-foreignlanguage-teaching-assistant-flta/



 $\label{eq:re-frac-tion} $$ re-frac-tion | \ ri-frak-shan : Change in direction of a wave as it leaves one medium and enters another. -Merriam-Webster $$$

ASSESSMENT OF TEACHING COMPETENCIES OF FACULTY OF SILLIMAN UNIVERSITY JUNIOR HIGH SCHOOL

PRIMO B. ARANAS, JR. (2017)

ABSTRACT

This study primarily investigated the level of teaching competencies being demonstrated by the faculty members of Silliman University Junior High School in the conduct of learning experiences among the students especially in regard to the skills and competencies known as 21st century skills such as critical thinking, problem solving, collaboration, communication, creativity, ICT (information, and Communication Technology). And leadership and responsibility. It further aimed to objectively evaluate the state of skills and competencies of faculty members of said school so that intervention is made and a mechanism to enhance the teachers' competence be properly institutionalized through skills retooling activities or programs of this purpose be developed or organized. For this purpose, the study attempted to determine if the assessment of students of teaching competencies of the teachers and the self- assessment of teachers on selected skills/ competencies are consistent or related.

This study has five hypotheses. These are: 1) there is no significant difference between the assessment of students and self-assessment of teachers of teaching competencies of the latter. 2) There is no significant relationship between the age of the teachers and their selfassessment of teaching competencies. 3) There is no significant relationship between sex of the teachers and their self-assessment of teaching competencies. 4) There is no significant relationship between the educational attainment of the teachers and self-assessment of teaching competencies. 5) There is no significant relationship between the trainings/ seminars attended by the teachers and self- assessment of their teaching competencies.

Thirty-one full-time faculty members of Silliman University Junior High School were the target population of this research work. It also considered the two hundred six Grade nine students of the same school as respondents for the assessment of teaching competencies. Two sets of instruments were used in gathering data. One instrument was used by the teachers and the other by the students.

The Cronbach Alpha, percentage, weighted mean, t-test, spearmen rank difference and Point Biserial were used in analyzing data. Cronbach Alpha was used to analyze the reliability and validity of self-made questionnaire. The percentage was used in presenting the profile of the teacher respondents. In determination of teaching competencies, weighted mean had been used. Moreover, t-test for independent groups, Spearman rank difference and Point Biserial were being employed in determining whether or not a significant difference existed between the teachers' and students' assessments and whether or not a significant relationship existed between the level of teaching competencies and the specific variable of the teachers' profile.

For ethical consideration, the research tools were being completely torn into smaller pieces after the data had been collected, collated and treated.

The demographic features of Silliman University Junior High School were as follows: a significant majority of the members of the teaching force belonged to the Middle- Aged Adult Group, a female-dominated unit, mostly baccalaureate degree holders and able to attend three or more training/ seminars.

This study concludes that teachers and students' assessment of the level of teaching competencies/ skills are both valid determinant of teaching competencies. Moreover, educational attainment has no significant relationship in all seven core competencies/ skills. This was plausibly understandable because of a very slim percentage of respondents who reported to finish master's degree. There is no significant relationship between trainings/ seminars with the core competencies except creativity. This implies that creativity competencies/ skills are directly enhanced through the participation of teachers in training/ seminars and the likes, however, it also showed that acquisition of competencies/ skills in the others core competencies had very little or no impact at all. Therefore, Silliman University Junior High School teachers are good communicators, responsible leaders, collaborators, creative, problem solvers and critical thinkers and with competencies in ICT.

Based on the findings and conclusions, the researcher recommended that there should be a strong endorsement for the teachers to proceed to graduate studies program and schools should come up with a mechanism to increase the number of masters or doctoral graduates. Moreover, it is recommended that the teachers will do introspection in the delivery of their lesson so as to bridge the gap between the assessment of their students and their self-assessment on their teaching competencies. Male teachers should be considered in future hiring and be actively involved in the teaching profession. Likewise, it is also recommended that more trainings/ seminars will be made related to information and communication technology (ICT) and creativity competencies. Skills enhancement through a Skills Retooling Program should also be created.

These recommendations are offered to education professors, the students, Silliman university Junior High School, other academic institutions including the Department of Education (DepEd), Silliman University Office of Instruction and Silliman University. Finally, the researcher recommended that another study will be conducted using the self-made instrument into a bigger environment with diverse population to countercheck it validity.

EMOTIONAL INTELLIGENCE AND ACADEMIC ACHIEVEMENT OF WORKING STUDENTS AT FOUNDATION UNIVERSITY: A BASIS FOR A PSYCHOSOCIAL DEVELOPMENT PROGRAM

JESSICA V. BAENA (MARCH 2018)

ABSTRACT

This study investigated the relationships between emotional intelligence (EI), including its composite scales, and the academic achievement of working students at Foundation University, Dumaguete City. This study was correlational in nature as it intended to find out whether or not a significant correlation between the composite scales of emotional intelligence, including intrapersonal, interpersonal, stress management, adaptability, general mood scales, and the students' academic achievement existed. It also sought to find out if there was a significant difference between the respondents' total emotional intelligence test results and the working students' emotional intelligence.

A total of 54 working students, 32 girls and 22 boys, were considered as respondents who were within the age range of 16 to 29 years old and 30 to 39 years old. The emotional intelligence and the composite scales of the working students were measured using the updated and shortened version of the Bar- On Emotional Quotient Inventory Short Edition (Bar-On-EQ-i:S).

The data collected were analyzed using percentage and Spearman rho. Percentage was used in presenting the proportion of respondents who belong to a particular category based on their emotional intelligence results as well as their academic achievement in relation to the total number of respondents. Spearman rho, on the other hand, was utilized in determining whether or not a significant relationship existed between each of the composite scales in the emotional intelligence (EQ-iS) test results and the overall result in the academic achievement.

Data analysis revealed that no significant relationship existed between emotional intelligence and academic achievement of working students at Foundation University. Hence, this study has proven to be unique and different as from previous researches made under the same topic. These results appeared to indicate that emotional

intelligence and academic achievement were independent with each other and each was not affected by the other.

As a result of this investigation, the respondents who fall within the areas for enrichment which include low (80-89), very low (70-79), and markedly low (under 70) levels of emotional intelligence could be given proper interventions as to how emotional intelligence could be developed. Recommendations have been offered for teachers and administrators to ensure that better support are provided to enhance the academic performance of these students.

Lastly, a psychosocial development program through the Guidance and Evaluation Office of Foundation University has been proposed for this group of students in order to specifically address those areas where they were performing low, particularly in the intrapersonal and interpersonal aspects and their total EQ.

CAREER PATH ASPIRATIONS OF CHILDREN AND OF PARENTS FOR THEIR CHILDREN IN UPLAND AND COASTAL HOUSEHOLDS: BASIS FOR SENIOR HIGH SCHOOL CURRICULUM

ALMA BANOT-BANABANA (MARCH 2016)

ABSTRACT

Parents, being the first teachers of their children, are considered molders of their children's future. Various empirical studies show that they perform a very important role in making their children's career path aspirations. As the Philippine educational system shifted to the learner- centered K+12 program, in order to produce graduates that ae more globally competitive, this study was designed to investigate the career path aspirations of grade nine children and their parents for them, their children.

The respondents of this study were all grade nine students of the four selected high schools, two coastal high schools and two upland high schools, within the municipality of Sibulan, Negros Oriental. This respondents' parents' sources of income were from farming and fishing either on a full time or part-time basis. Due to limited resources and time, the basis in choosing the respondents was the accessibility of the location of the schools. The schools involved in this study were Sibulan National High School and Ajong National High School for the coastal respondents and San Antonio National High School and Tubigon High School for the upland respondents.

This is a descriptive – comparative study having questionnaires with semistructured questions and self- administered through the guidance of the researcher as it was given simultaneously to all the respondents in each school for a specified date and time. There were respondents who were not present during the scheduled data gathering, so individualized interviews were done as the researcher visited the target respondents in their residences. The statistical tool used in analyzing the gathered data was chi square.

The result showed that most of the parents from upland and coastal communities together with the coastal children have aspired for academic paths. On the other hand, most of the children in upland communities aspired for the technical-vocational courses.

Moreover, there was a significant difference on the percentage in the distribution of the child-respondents in terms of the career path aspiration. Furthermore, there was no significant difference on the percentage found between the career path aspirations of the children and their parents' career path aspirations for them in both the coastal and upland communities. However, both parents and children of the coastal and upland communities perceived the K+ 12 program to have influenced their choices to the kind of career path that they aspired for.

Therefore, based on the results, it can be concluded that parent were open to their children's aspirations and they did not insist and impose their own aspirations for them; an open communication between parents and children existed; children were given the freedom to choose; finally, children considered what was achievable and practical. Based on this, it is recommended that school administrators should facilitate a one-day formal career path orientation to both the children and parents so that they would completely understand what are K+12 program and its implications in relation to career pathing. It was also recommended that the list of preferred technical – vocational courses by both children and parents of coastal and upland communities which was an output of this study be presented to the Trifocal Agencies such as the Department of Education (DepEd), Technical Education and Skills Development Agency (TESDA), and Commission on Higher Education (CHED) for possible basis in assessing senior high school curriculum offerings.

STUDENT TARDINESS IN RAMON TEVES PASTOR MEMORIAL – DUMAGUETE SCIENCE HIGH SCHOOL FOR EDUCATION PLANNING

KARENE ECEL LAJOT CHUA (MAY 2016)

ABSTRACT

This study examined the relationship between the tardiness of junior high school L students of RTPM – Dumaguete Science High School school year 2015 – 2016 and their perception on the attitudes of their parents/ guardians, teachers, peers and their own toward school. Present cases on tardiness in the said school have been escalating and there has been no study conducted to address it. The researcher asked permission from the adviser to use the Form 2: Attendance Form to identify who are chronically tardy and non- tardy. A student profile and home and school environmental questionnaire was given to 447 permitted students. Pearson Product Moment r and chi square were employed to find out whether or not a significant relationship exists between any two of the aforementioned ratings. Pearson Product Moment r was for the respondents' ratings on their attitudes toward school and their perceptions on their parents' attitudes, peers' influences. Chi square was used to determine to what extent the respondents' demographic profiles are significantly related to tardiness. Lastly, t test was used in determining whether or not a significant difference exists between the chronically tardy and non-tardy student respondents' ratings. The results revealed that tardiness of both groups of students and their perception on the attitudes of their parents/ guardians, teachers, and peers have a significant relationship along with their mode of transportation and age.

PERCEPTION OF CAREER PREFERENCES OF GRADE 9 STUDENTS IN RELATION TO THE PERCEPTIONS OF TEACHERS AND PARENTS OF SILLIMAN UNIVERSITY: A PROPOSED CAREER DEVELOPMENT PROGRAM

MARIA ROISELLE DEMERRE -NACU (JULY 2015)

ABSTRACT

This study aimed to determine the career preferences of Silliman University School of Basic Education High School Grade 9 students and parents in relation to the four tracks and its specific strands. Likewise, the study also examined the perception of career needs of the Grade 9 students in relation to the perceptions of teachers and parents of Silliman University. All these were explored with the purpose of proposing a Career Development Program for the Senior High School of Silliman University. Two hundred twenty-seven Grade 9 students, 212 Grade 9 parents, and 18 Grade 9 and 10 teachers participated in the study.

The findings of the study showed a significant relationship between the student's and parent's preference relative to the choice of the tracks and its specific strands. The findings further showed that there was a significant difference between the students perceived need in relation to the teacher's perceptions in terms of the career readiness domains: personal/social, career and academic. Similarly, the findings showed that there was a significant difference between the students perceived needs in relation to their parent's perceptions in terms of the career readiness domains: personal/social, career and academic. Lastly, the findings showed no significant difference between the teacher's perceptions in relation to the parent's perceptions in terms of the career readiness domains: personal/social, career and academic.

Based on the findings and conclusions, the researcher therefore made the following recommendations for the choice of tracks and its specific strands:

For the students to work closely with their career counselor in terms of their career preference to enable them to gain the proper perspective whether the preferred career is suited to their interests, skills, abilities and aptitude, and for students to keep an open mind regarding alternative careers.

For the parents, to find time to sit down with the career counselor in discussing their career preference for their child, at the same time, to allow the career counselor to discuss

the career assessment results of their child/ward, to enable them to make concrete decisions regarding their child/ ward's career path. For parents to emulate a supportive environment in considering alternative career choices or options, should their child's assessment results prove contrary to their preferred career.

For the students and their parent/s to collectively formulate an educational plan based on their career preference, and be properly guided by the career assessment (conducted by the Career Guidance Office) results, to ensure that the chosen career is suited to their child's/ ward's interests, skills, abilities and aptitude, as well as the psychological capability of the family in sustaining the chosen career.

In addition, the researcher further made the following recommendations for the perceived needs of the grade 9 students, teachers and parents in terms of the career readiness domains:

- For the students to seek out help of the school counselor, to address their personal/ social, career and academic needs;
- 2. For teachers to coordinate closely with the school counselor to enable facilitation of services needed to respond to the student's personal/ social, career and academic needs. Furthermore, the counselor and teacher may collaborate in determining cognitive mindsets and personal/social behaviors indicative of the student's academic performance and potential in particular careers, to enable the student to come up with an educational plan suited to their capabilities. Equally important is for the teachers to empower their students to seek for assistance/help when it comes to difficulties experienced in their academics. This can be done through an effective referral system;
- 3. For the parents to clarify with their child/ward regarding personal/social, career and academic issues or concerns. To take time to collaborate with the teachers, and counselor regarding personal/social, career and academic issues or concerns, which their child may be experiencing, by providing pertinent data to shed light regarding their child or ward's cognitive, psychological/ social and academic endeavors so that assistance and intervention may be facilitated, if needed; and
- 4. For teachers and parents to continue their endeavor to work towards the holistic development of their student/child/ward (in terms of the career readiness domains: personal/social, career and academic) by keeping an open heart and open mind to the various issues and concerns besetting their students/ child/ward, as well as seek assistance from the counselor in bridging the gap in relation to the difference in perception relating to the career readiness domains between adolescents and adults.

DETERMINANTS OF THE EMPLOYABILITY OF THE TECHNICAL VOCATIONAL GRADUATES OF METRO DUMAGUETE COLLEGE: A BASIS FOR A CAREER GUIDANCE PROGRAM

ALWINA PIAMONTE DE MIRA (FEBRUARY 2016)

ABSTRACT

This study examines the different determinants of employability of the Technical – Vocational graduates of Metro Dumaguete College. The variables included in the study are the age, sex, civil status, national certification received, applicability of skills acquired, skills acquired, past work experience and self-concept. This study also aims to establish the relationships between the personal characteristics and training experience of technical vocational graduates under TESDA and their employability in order to ascertain if Metro Dumaguete College where they graduated was able to produce quality graduates envisioned by the government and the school per the Memorandum of agreement (MOA) they have entered into for the scholarship provided by the former. The following technical vocational training programs are offered by Metro Dumaguete College: Computer Hardware Servicing; Computer System Servicing; Java (Career Entry Course for Software Developers-Java); Programming (Software/Systems Development); and Finishing Course for Call Center Agents.

A sample of 325 graduates was randomly selected representing 18% of a total population of 1,804 graduates from five (5) cities and 14 municipalities in Negros Oriental and Siquijor Islands covering a three-year period from July 1, 2012 to June 30, 2015. The personal, self and technical factors contributing to the employability of MDC's technical vocational graduates were considered in preparation for the school's Career Guidance program to be implemented for the succeeding years. Data show that age, civil status, applicability of skills, skills acquired, National Certification and previous work experience have significant positive relationship with the employability of an individual. However, sex and self-concept have shown no significant relationship with their employability.

PERCEIVED PARENTING STYLE AND BULLYING EXPERIENCE OF GRADE SIX PUPILS IN DUMAGUETE CITY: A BASIS FOR A PROPOSED ANTI – BULLYING PROGRAM

EDITH RUTH GESTUPA (MARCH 2018)

ABSTRACT

This paper aimed to determine the perceived parenting style and bullying experience of Grade six pupils in both public and private schools in Dumaguete City. The study utilized the descriptive-correlational method of research. The variable taken in the study were the pupil's profile in terms of sex and the type of school attended; the parenting style in terms of permissive, authoritarian and authoritative, and bullying and victimization experiences.

The respondents of the study were Grade six pupils during the school year 2017-2018 who were subjected to sampling. The sample was proportionately distributed among twenty-nine (29) elementary schools in the city. Participants included 358 Grade 6 pupils, 172 boys and 186 girls. To determine the parenting style, weighted mean was utilized and as to the relationship of variables considered in the study, chi-square was used. The study made used of the Parental Authority Questionnaire, a standardized questionnaire by John R. Buri. This instrument determines the dominant parenting style practices by parents as perceived by their child. For pupils' bullying experiences, Olweus Bully Victim Questionnaires was utilized. This instrument describes the extent of bullying experiences of the pupils.

Thus, the salient findings of the study are as follows: 1) Parenting style is significantly related to pupils' sex and the type of school pupils attended; 2) A significant relationship was revealed between parenting style and pupils' bullying experiences on being bullied and as a bully; 3) The type of school attended by pupils was found to insignificant in relation to pupils' bullying experiences; and 4) Pupils' sex was found to be significantly related to their bullying experiences as bullies.

As a result of the study, a proposed Anti-Bullying Program was formulated and recommended for implementation to address school bullying problems in school. The program will guide the school in the awareness and prevention of bullying among pupils to ensure safe and healthy environment.

SOPHOMORE STUDENTS' PROFILE, RESILIENCY AND ACADEMIC PERFORMANCE: TOWARDS A PROPOSED GUIDANCE ENRICHMENT PROGRAM

ANNA LYNN L. GIO (JULY 2015)

ABSTRACT

The study aimed to determine if there was a significant relationship between the sophomore college students' profile (age, sex, course, religion, socio-economic status, and membership in campus organization) and resiliency as well as between their resiliency and academic performance for the school year 2014-2015.

The Silliman University student – respondents were from the following disciplines: Science and Technology (165); Social Science and Humanities (33); Applied Social Science (134); and Allied Health Sciences (89). Data in this study came from the Resilience Scale (RS) questionnaire (Wagnild & Young, 1993) administered to the respondents together with said respondents' academic performance during school year 2014-2015 translated into their obtained grades for the period based on the university grading system. Results of the study showed a significant relationship between some factors like age and resilience; membership in organization and resilience; course and equanimity; socioeconomic status and equanimity; membership in organization and self-reliance; and meaning and equanimity. Even though there was no significant relationship between resilience and academic performance, various recommendations were made, one of which is a proposed enrichment program that promotes positive resiliency among students. Another recommendation given is to conduct further study of the same nature using different variables to learn more about sophomore students and how they can be facilitated to build or enhance resiliency.

CORRELATES OF SELF – ESTEEM AND TEACHING PERFORMANCE OF THE PUBLIC JUNIOR HIGH SCHOOL TEACHERS IN THE CITY DIVISION OF DUMAGUETE

ALMA V. OLMILLO (MARCH 2017)

ABSTRACT

This study was designed to determine the self-esteem and teaching performance of the Grade VII teachers of the public junior high schools in the City Division of Dumaguete. An overall population of sixty-three (63) Grade Vii teachers coming from seven (7) Public Junior High School of DepEd Dumaguete City Division participated in this study. There were two instruments used in this study: the State of Self-Esteem Scale formulate by Heatherton and Policy and the official. Teaching Performance Evaluation Ratings of the respondents. The State of Self-esteem Scale was a 20-item scale that measured the participant's self-esteem at a given point in time. These items were subdivided into three components of self-esteem performance self-esteem, social self-esteem and appearance self-esteem. All items were answered using a 5 point scale (1 = not all; 2 = a little bit; 3 = somewhat; 4 = very much; 5 = extremely). The official Teaching Performance Evaluation Ratings utilized the adjectival ratings of (5 = outstanding; 4 = very satisfactory; 3 = satisfactory; 2 = unsatisfactory; 1 = poor) which were gathered from the respondents with consent and through the approval of their respective principals.

The data gathered on the profile of the respondents, self-esteem as well as teaching performance were tabulated in frequencies and percentage and their weighted mean were taken to find out whether or not significant relationship exist to answer research problem numbers.

In terms of the profile of the Grace VII teachers of the public schools covered in the study, there were more female teachers than males; majority of them were in their middle adulthood and with relatively long years of teaching experience. Their self- esteem was in the middle of the distribution. This could be construed that they are doing fine in valuing themselves and how valuable they think they are to others. This also signified that they do not have problems in their relationship with others. Most of the teacher respondents were teaching very satisfactory in fact 20% of them were in the outstanding performance fell

under the unsatisfactory category although this was a minimal number, but considering the number of pupils who will be under his or her mentorship, the impact of it cannot be taken lightly.

To determine whether or not sex, age and years of teaching experience are significantly related to self-esteem, a test of relationship was performed using Pointbiserial and Spearman rho. The results of both computations indicated that none of the three variables was significantly related to self-esteem. This went to show that self – esteem was not in any way influenced by either sex, age or teaching experience. In a nutshell, teachers could have either high or low self – esteem irrespective of sex, age and teaching performance. Similar to self- esteem, none of the profile of the respondents was significantly related to teaching performance. This indicated that teaching performance was not in any influenced by any of the influencing factors such as sex, age and teaching experience.

In terms of self-esteem and teaching performance, the result showed that the two variable were not significantly related. This was indicated in the probability value which was greater than the margin of error. Through the coefficient of correlation was positive, this went to show that any change in one variable was not variable was not accompanied by the same change in the other variable. In other words, when self-esteem ascends, teaching performance does not necessarily follow. Hence, the null hypothesis which states that there is no significant relationship between the self-esteem and teaching performance was accepted.

Based on the foregoing findings, the following conclusions had been formulated: 1) In terms of profile of the respondents, the female respondents outnumbered their male counterpart; 2) Most of them were in their middle adulthood with an average teaching experience of eight years; 3) The teacher respondents' level of self- esteem was independent of their profile. Similarly, the teacher respondents' level of teaching performance was independent of their profile. Results of this study suggests that self-esteem could not affect teaching performance, and could not be considered a prerequisite to one's teaching performance.

On the basis of the aforementioned conclusion, the following recommendations were being offered: for school administrators to integrate the Self-Esteem and Teaching Performance Enhancement Program designed by the proponent in their in-service training and seminar – workshops; for teachers to implement the ways of improving their self-esteem through the enhancement program offered by the proponent with the goal of improving also their teaching performance; for Silliman University Teacher Education Department to be guided by the findings of the study and use the finding in training their would-be teachers with regards to improved self-esteem improved and with a very satisfactory to excellent teaching performance, for curriculum planners to develop the curriculum to the extent that teachers are enabling to better shape students'

cognitive, psychomotor, and affective domains on different subjects; and lastly for the future researchers to be more motivated to undergo similar research and identifies other correlates that might influence self-esteem and teaching performance.

MOBILE LEARNING LANDSCAPE OF PRIVATE SENIOR HIGH SCHOOLS IN NEGROS ORIENTAL: A BASIS FOR THE DEVELOPMENT OF A TRAINING PLAN

ALFIE QUINAMOT - ARCELO (OCTOBER 2018)

ABSTRACT

A mong 21st century learners, m-learning is omnipresent in their day-to-day activities that have provided a whole new dimension not only in education, but also in the delivery and achievement of learning that happens anytime, anywhere. Yet, how is our mobile learning landscape?

This paper investigates the m-learning landscape of multi-stakeholders through skills, personal innovativeness, readiness, acceptability, and infrastructure from the perspectives of administrators, teachers, parents, and students of 27 private SHS in Negros Oriental or a total of 07 multi-stakeholders:24 principal, 26 teachers, 22 parents, and 25 students. The survey questionnaire in this study was also adapted from four different studies: Venkatesh et al. (2003), Hussin et al. (2012), Mahat et al, (2012), and the European Commission (2013).

Survey results revealed that skills and readiness established significant differences among the other variables, with a gap in skills established among groups and readiness with a highly favorable rating for teachers. Both demographic profile and gadget ownership are also significantly related to skills, personal innovativeness, readiness, acceptability, and infrastructure- with the last variable having established multiple relationships with skills, personal innovativeness, readiness, and acceptability.

Mobile technology then plays a vital role in the shaping of the m-learning landscape of private senior high schools in Negros Oriental, now identified as an insufficiency in the implementation of effective m-learning. With this, a gap in skills is established among respondents, resulting in not possessing the required skills to fully realize m-learning. Likewise, readiness is also affected by this insufficiency which has led to their readiness variations. The respondents are therefore not totally accepting of the idea of m-learning; and are then only partially innovative.

On such bases, schools should take the initiative of exposing their users to

updated mobile technology in accordance with the type of m-learning strategy desired to implement, augment, and embrace m-learning through a training plan focused on 21st century skills, LMS, and online productivity tools. Continuous studies should also be made on the cohesiveness of this study's variables and their relationships; while a comparative study should be done between private and public senior high schools.

KNOWLEDGE AND MANAGEMENT OF BULLYING AMONG FACULTY AND STAFF OF THE ELEMENTARY DEPARTMENT: TOWARDS THE DEVELOPMENT OF AN ANTI-BULLYING PROGRAM

ROCHELLE MARIE CAUSING REMOLLO (JUNE 2015)

ABSTRACT

The study was aimed at establishing the relationship between the socio-demographic characteristics, level of bullying knowledge and management of bullying incidents among the faculty and staff members at the Elementary Department of Silliman University

Out of the 66 identified respondents, only 59 participated in the study. They were asked to answer two (2) sets of questionnaires, a 20 – item Bullying Knowledge questionnaire and the Handling Bullying Questionnaire (HBQ) constructed by Bauman, Hoppa and Rigby (2008) which consists of 22 items.

Based on the results, majority of the respondents have college degrees and are faculty members. Most of them have worked with the university between 0 - 12 years and are female.

In terms of the level of bullying knowledge, the results revealed that almost all of the respondents scored high. On the one hand, the data collected using the HBQ, the dominant was in managing or handling bullying incidents was apparently disciplining the bully, followed by working with the bully and enlisting other adults, a close third.

Among the variables tested, a significant relationship was found only between school designation and management of bullying. All the rest of the paired variables were not significant and rejected their respective hypotheses.

At this point, developing a need-based anti-bullying program is imperative for implementation.

PERCEIVED PARENTING STYLE AND SELF - CONCEPT OF STUDENTS AT NEGROS ORIENTAL STATE UNIVERSITY: A BASIS FOR AN ENHANCED GUIDANCE PROGRAM

ANNABELLE E. REYES (MARCH 2018)

ABSTRACT

This study investigated the correlation between perceived parenting style and selfconcept of students at Negros Oriental State University (NORSU). The self-concept of students was further investigated by looking specifically into the following dimensions: selfimage, self-confidence, and self-esteem. The study was descriptive- correlational in nature in the sense that the respondents and their parents' demographic profile were described and the extent of the relationship between self-concept and parenting style was correlated. The respondents of the study were the 362 students of NORSU Bayawan- Sta. Catalina Campus. They were enrolled in the second semester of the school year 2017 – 2018 and their age bracket is within 16-24 years old.

Percentage was used in determining the distribution of the respondents across categories in terms of their demographic profile while Chi-square was used in determining whether relationships existed or not between each of the components in the self-concept and parenting style, as well as in the relationship between overall self-concept and parenting style. The parenting style of the parents was determined using John R. Buri's Parental Authority Questionnaire, while the self-concept of students was measured using Earnest Tan's Self-Concept Questionnaire.

On the basis of the statistical techniques used with the data gathered, it was concluded that there was no significant relationship that existed between the students' profile and self-concept except on the areas of year level which was significantly related to self-confidence with a p value of 0.023. Because of the varying results, the null hypothesis which correlated students' demographic background and self-concept cannot be categorically accepted or denied.

However, the correlation between parenting styles and self-concept yield a p value of 0.08, 0.314, and 0.331, respectively, in all its three dimensions: self-image, self-confidence, and self-esteem. These results were higher than the margin of error of 0.05; therefore, the

null hypothesis indicating a no significant relationship between the students' perceived parenting style and their self-concept was accepted.

Based on the findings of the study, it is recommended that the existing Counseling, Assistance, Resources, Enrichment (CARE) Program be enhanced to provide the students with creative experiential activities and techniques to deepen their self-discovery, and understand themselves better, and develop an unwavering self-concept.

EFFICACY BELIEF AND PERCEIVED RELEVANCE OF CHARACTER EDUCATION AMONG TEACHERS OF PRIVATE EARLY CHILDHOOD SCHOOLS IN JAKARTA

ARIADNE DESY NATALIA SIBUEA (MAY 2018)

ABSTRACT

In molding students to become holistic individuals, education should not only offer academic knowledge. It has to form the students' character as well. The teaching of character education must be performed by competent teachers in order for the objectives to be achieved. Teachers' efficacy belief and their perceived relevance of character education are among the many factors that determine teacher competence in character education.

This study focused on teachers' efficacy belief and perceived relevance of character education among early childhood teachers in Jakarta. It aimed to find out if a significant relationship existed between teachers' efficacy belief and perceived relevance of character education, moreover, teachers' demographic profile and teaching experience were correlated to their efficacy belief and perceived relevance of character education.

The respondents of this study were 35 teachers of private early childhood schools in Jakarta. The instruments used for data collection were Character Education Efficacy Belief Instruments used for data collection were (CEEBI) by Milson and Mehlig (1999) and Character Education Questionnaire by Dykes (2007). Data were collected and analyzed using percentage, weighted mean, Chi-square and Spearman Rho. The level of significance was set at 0.05.

The findings of this study revealed that no significant relationship existed between efficacy belief and perceived relevance of character education among early childhood teachers in Jakarta. Teachers' demographic profile in terms of age, marital status, nationality, as well as religion and their teaching experience did not influence their efficacy belief in character education. However, teachers' demographic profile in terms of sex had a significant relationship with their efficacy belief in character education. Specifically, male teachers were more confident in teaching the subject compared to female teachers. Meanwhile, teachers' perceived relevance of character education was not affected by their demographic profile in terms of age, marital status, nationality, religion as well as sex and teaching experience. Based on the finding of the study, these recommendations were offered: 1) inservice training (for both content and pedagogy of character education in the preschool) be provided to the teachers regardless of age, marital status, nationality, and religion, 2) more focus/attention be given to the female teachers in providing in-service training activities, 3) character education be included in the curriculum of teacher education institutions; and, 4) seminars and workshops be conducted for parents to develop their knowledge on character education and equip them with skills to instill good character among their children at home.

CULTURAL CHANGES AND EXPOSURE OF THE TIBETAN CHILDREN TO OFF- VILLAGE EDUCATION: BASIS FOR AN ENRICHMENT EDUCATIONAL PROGRAM

YANGJIDUOJIE (MARCH 2017)

ABSTRACT

In recent years, Tibetan culture is facing negligence in many ways. From urban cities to towns, and then villages, knowledge of cultural aspects such as language fluency, the appreciation of cultural events, practices of both folkways and folklore, have begun degrading. More and more Tibetan children in the cities, prefectural towns, country towns, and villages are forgetting their culture as their hometowns become more urbanized. The children from villages attend boarding schools in the towns and country towns and they have limited access to Tibetan heritage that is passed on from their parents and villagers. Children who remain in the villages have not been impacted by cultural loss as severely.

This study was conducted in 10 Tibetan villages in Mgo mang (Guomaying) Town, Mang ra (Gui nan) Country, Mtsho Iho (Hainan) Tibetan Autonomous Prefecture, Mtsho sngon (Qinghai) Province, China during the summer holiday (July-September) in 2016 in order to examine the status quo of cultural changes of Tibetan children who receive education outside of their village. This study involved a total of non-probability sample, 120 primary school and junior middle school students (60 males and 60 females) of villages in Mgo mang (Guomaying) Town. Primary school students are averagely around 9-11 years old, junior middle school students are around 12-15 years old. The researcher chose 10 pure Tibetan villages from Mgo mang Town and select 12 students from each village, 3 males and 3 females from both primary and junior middle schools. The researcher prepared both checklists and semi-structured questionnaires to determine the views of the primary and junior middle school students regarding the implementation of school layout adjustment within new education policy and its aspects bring to Tibetan language fluency, appreciation of Tibetan cultural events, and practice of Tibetan folklore.

Most respondents had a low level of mixed non-Tibetan words, but more than half of respondents were observed to speak mixed languages. More than half of the respondents had a low level of understanding of Tibetan words, especially of modern vocabulary. The respondents have a high participation in Tibetan cultural events but generally did not participate in hair changing rituals, 'eighty year old' birthday celebration, and lab tse rituals. Almost all respondents had a high level of interest in cultural events, except in the hair changing ritual. The respondents had a very low level of knowledge of Tibetan folkways and folklore. There were no significant associations between the sex and school level of students surveyed and their fluency in Tibetan language, appreciation of cultural events, and practice of folkways and folklore.

From perspectives of parents-respondents and through the research result, the researcher recommends that cultural enrichment educational programs for children should be implemented to the village in Mgo mang (Guo ma ying) Town, Mang ra (Gui pan) Country, Mtsho Iho (Hainan) Tibetan Autonomous Prefecture, Mtsho sngon(Qinghai) Province, China Elements of preservation may have a strong influence over one's recognition of the importance and increase the knowledge of the culture.

Conclusions and recommendations presented in this study may include the ways to preserve and protect Tibetan culture of Tibetan children, which also benefits education, especially in terms of morality and culture development.

DISSERTATION ABSTRACT

PROFILE, ADVERSITY QUOTIENT, AND MULTIFACTOR LEADERSHIP CHARACTERISTICS OF STUDENT AFFAIRS AND SERVICES ADMINISTRATORS: TOWARDS A LEADERSHIP MANAGEMENT TRAINING DESIGN

JARUVIC CLAVANO RAFOLS (NOVEMBER 2015)

ABSTRACT

This study was primarily aimed at investigating the relationship between the Student Affairs and Services administrators' selected demographic profile in terms of age, sex, civil status, socio-economic status, educational attainment, and years of work experience and their Adversity Quotient profile (AQP) overall results in terms of the following CORE dimensions: control, ownership, reach and endurance. Moreover, it looked into the relationship between demographic profile and Multifactor Leadership Characteristics overall results of the respondents through Multifactor Leadership Questioner (MLQ X5 short) based on the following factors: 1) Idealized influence (II – Attributed); 2) Idealized influence (II – Behavior); 3) Inspirational Motivation (IM) ; 4) Intellectual Stimulation (IS); 5) Individual Consideration (IC); 6) Contingent Reward (DR); 7) Management-by-Exception0Active (MBEA); 8) Management-by-Exception-Passive (MBEP); and, 9) Laissez-Faire (LF) and their demographic profile. Lastly, it sought to determine the relationship between the respondents' Adversity Quotient overall results and Multifactor Leadership Characteristics overall results.

In particular, this study focused only on the Student Affairs and Services administrators of the public and private higher education institutions (HEIs) in central Visayas Region within Negros Oriental and Siquijor. The schools were identified by the Commission on Higher Education Regional Office (CHEDRO VII), Philippines. There were 36 respondents identified as former and present Student Affairs and Services administrators (deans, directors, managers, assistant directors, unit heads, coordinator, and faculty designates) working full-time in the higher education institutions (HEIs) of Central Visayas Region specifically within Negros Oriental and Siquijor. All assessment tools were answered voluntarily by the respondents.

The descriptive-correlational research design was used for data analysis of the three sets of instruments utilized for the study. The demographic profile referred to age, sex, civil
status, socio-economic status, educational attainment, and years of work experience. The Adversity Quotient was measured through the Adversity Quotient version 9.0 an online instrument provided by Dr. Paul G. Stoltz of Peak Learning, Inc. The Multifactor Leadership Questioner (5X-short) by Bernard M. Bass and Bruce J. Avolio (2004) was used to assess the respondents' leadership characteristics.

In the treatment of data, the following statistical tools were used: percentage, weighted mean, point biserial coefficient, and person product moment r. Findings showed that there was no significant relationship between the respondents' Adversity Quotient overall results and their selected demographic profile (sex, age, civil status, socio-economic status, educational attainment, and years of work experience). Moreover, there was also no significant relationship between the respondents' Multifactor Leadership Characteristics overall results and their selected demographic profile. Lastly, there was also no significant relationship between the respondents' adversity quotient and their multifactor leadership characteristics overall results.

The results of the study showed the need for a leadership management training design to enhance leaders who have been found to have low and below average Adversity quotient level in CORE dimension: control, ownership, reach, and endurance. Simultaneously, the need to increase frequency on transformational behaviors and decrease the frequency of transactional and passive/ avoidant behaviors among Student Affairs and Services administrators must also be addressed. Along the process, these leaders can positively influence their associate's awareness of what is important, and move them to see themselves and the opportunities and challenges of their environment in a new way.

DISSERTATION ABSTRACT

STRATEGIC PRIORITIES, MANAGEMENT COMPETENCIES AND PERFORMANCE OF SCHOOLS DIVISION IN NEGROS ISLAND REGION

MARY ANN M. MANSING - TEMPROSA (MARCH 2017)

ABSTRACT

This is a descriptive- comparative and descriptive – correlative study designed to look into the strategic priorities and management competencies of the 16 schools division superintendents of the 16 schools division of the Department of Education in Negros Island Region, Moreover, it also determined how the implementation of these strategic priorities and management competencies were made evident in the performance of the schools divisions according to the following indicators: enrollment rate, cohort survival rate, dropout rate, completion rate, National Achievement Test (NAT) results and Alternative Learning System (ALS) completers. The developmental need of the 16 schools division and the innovations they did to sustain or improve planning, monitoring, and coaching, implementation and evaluation of the Results – Based Performance Management System (RPMS) in order to maximize favorable result and correct unintended consequences were also documented.

The statistical tools used were the one-way or single – factor analysis of variance (ANOVA) to determine whether or not a significant difference in the strategic priorities and management competencies existed among the schools divisions; Spearman rho to determine the coefficient of correlation between strategic priorities and management competencies; percentage and mean to determine the performance of the schools divisions based on the indicators used in the study; and Pearson product moment r to determine the coefficient of correlation between strategic priorities and schools divisions performance as well as between management competencies and schools division performance.

On the basis of the statistical techniques used and within the limitations of the investigation, it was concluded that there was no significant difference in the strategic priorities and management competencies among small, medium and large schools divisions in Negros Island Region and that there was also no relationship between these two variables nor between these variables and the school divisions performance.

DISSERTATION ABSTRACT

THE FAMILY INCOME AND HEALTH INDICATORS OF MILLENNIUM DEVELOPMENT GOALS AS DETERMINANTS OF THE QUALITY OF EDUCATION IN NEGROS ORIENTAL

RHODORA DUMALAGAN - CLEOPE (FEBRUARY 2018)

ABSTRACT

The Family Income and Health Indicators of Millennium Development Goals (MDG) as Determined of the Quality of Education in Negros Oriental, examines the performance of each of the local government units in Negros Oriental in its efforts to achieve MDG 2015. Knowing the LGU's extent of achievement will help the province achieve the Sustainable Development Goals 2030 (SDG) goal on quality education. This is because researches have proven that education is a great factor in improving the quality of life of peoples and nations.

The MDG goals examines in the study are; goal 1: Eradicating extreme Hunger and Poverty, goal 2: Achieving Universal Primary Education, goal 4: Reducing Child Mortality, and goal 5: Improving Maternal Health. These goals are chosen because the research looked into the correlation of education, household income, and health as the variables to achieving quality education.

The problems focused in the study are: the relationships between "eradicating extreme hunger score" and "achieving universal primary education score", "under-five mortality rate score" and "achieving universal primary education score" of local government units.

In addition, the extent to which Negros Oriental was able to achieve the set MDG targets was also assessed to know if the province was able to successful achieved the Millennium Development Goals 2015.

The date for the study were gathered using data mining method, and were verified during the one-on-one interview and focused group discussion with pertinent people in the LGU's. The gathered data were computed using percentage and Pearson Product Moment Correlation Coefficient. For the extent to which the province had achieved the identified MDG goals, the accomplishments were assed using the UN provided achievement indicators for MDG.

The result of the study showed that all the LGU's were not able to meet all the MDG goals examined in the study. There are, however, few LGU's that have attained some MDG

targets but their percentage is low. There are also results that are affected by the veracity of the given data because of the claimed discrepancy in the projected population, which is used as basis for setting the target, and in computing for the extent of accomplishment.

As a result of the claimed discrepancy, hypothesis 2 that states, "There is no significant relationship between 'reducing child mortality score' and 'achieving universal primary education score' of local government units" is accepted. In the same manner, hypothesis 3, "there is no significant relationship between 'improving maternal health' score and 'achieving universal primary education' score of local government units" is also accepted. Only hypothesis 1 that states, "there is no significant relationship between 'eradicating extreme hunger score' and 'achieving universal primary education score' of local government units" is no significant relationship between 'eradicating extreme hunger score' and 'achieving universal primary education score' of local government units", is rejected.

Another noteworthy result of the study is that all programs and projects for the achievement of the MDG goals, which are implemented by the LGU's, are mandated, budgeted, and partly supervised by the central office. With this, the local government leaders do not give priority to requests for local support programs and budget to insure the successful implementation of the programs for the achievement of the MDG goals.

As a recommendation, a policy to create a team intervention composed of parents, local school faculty and administration, local government officials, social workers, and health workers should be created to help keep the school age children in school. Funding for the team intervention should be jointly shouldered by the schools division, the local government unit, and the other units in the government that should get involved in the program like that of the local health and nutrition centers when their services are needed.

Another is that the local government should conduct a yearly population census in coordination with NOPSO to address the discrepancy between the projected and the actual population, and for a more accurate evaluation of result on population based programs.

Moreover, since there are still other MDG goals that have sequels in the SDG 2030, then it is suggested that other researchers study them as well. This way, the province's performance in all the MDG goals would be evaluated for the purpose of helping achieve all the goals of SDG 2030. Being able to achieve SDG 2030 gives great assurance for an uplifted quality of life for all the residents of Negros Oriental.

THE Educator

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RETROSPECTION: VOICES FROM THE CLASSROOM

CABALLO, RENELITO What to do if the Airwolf doesn't fly

VILLAHERMOSA, HANZ DENSEL Into the Heart of America

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THE Educator

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