# CURRICULUM COMPARISON OF THE TERTIARY EDUCATION PROGRAM OF CAPITOL UNIVERSITY FOR THE 2008-2009 GRADUATES

**Martiniano Jake P. Neri III**
Capitol University, Cagayan de Oro City, Philippines
E-mail: docachmed@gmail.com

## Abstract

*The study looked into the variances and differences of the two curricula of Capitol University College of Education for the graduates of Academic Year 2008-2009, and the performance of the graduates who opted to take the Licensure Examination for Teachers (LET) of the same year. The University produced 39 Education Graduates from two separate curricula implemented, wherein 25 were from the old curriculum and 14 were from the new one. The study specifically monitored the academic, practical and national performances of the Bachelor of Science in Education (BEEd) graduates, at which the academic criteria focused on their marks according to the university standards for General and Professional Education, as well as marks from the Mock Exam (as a course requirement); practical performances measured according to marks given by supervisory instructors during their practicum or Practice Teaching. These marks were then statistically derived to represent the general training these graduates received from Capitol University.*

*The LET results of 2009 were used as the benchmark to determine the performances of the curricula stated. Along with information gathered from graduate insights and job experiences, the study highlighted on the perceived identified strengths of the both curriculums as an add-on experience to further improve the LET performances of the incoming graduates for the Education Program of Capitol University. The new curriculum is currently implemented in the University, with the distinction specific to the Department awarded by the Commission on Higher Education (CHED) as a center of Excellence.*

**Key words**: *accreditation, curriculum comparison, Licensure Examination for Teachers (LET), performance.*

## Introduction

An educational curriculum anchored in strong academic principles effectively finds its way to its elements (the students) as designed (Chickering, 1991). As time passes, these principles are subjected to new challenges that sprout from technological and industrial developments which shape and reshape opportunities and circumstances. Thus, the academic principles in focus of this contention change; some aspects are removed because of inapplicability and irrelevance, others evolve and take on a new label. Others are built out of sound understanding, while some are derived out of scientific observation and implications from trends and analysis (Rosenberg, 1997).

The Philippine Higher Education system subjects itself to several methods of quality checks that act as 'safety nets'. These methods qualify certain institutions if the programs they are offering are standardized according to design. These designs, in a broader perspective, are attached in the norms that constitute employability, program blueprint, feasibility in operation and operation, and the like.

ISSN 1822-7864

Quality checks are in place to determine to what extent the program stands. Some findings from various studies recommend action ranging from minute changes regarding the expansion of library resources to drastic measures such as the complete revamp of a curriculum as manifested by very low passing rates in national/professional service exams. This strategy allows institutions to exhibit qualifications bestowed upon them, provided that they comply and pass the assessment initiated by the certifying body. Institutions also use this leverage to advertise the operational services they have for their clients; documented portions of the perceived quality present in the systems they have in place are displayed for other institutions to see or scale (PACOCOA, 2009).

One of the key accreditation systems commissioned by Capitol University is Philippine Association of Colleges and Universities Commission on Accreditation (PACUCOA). Along with the Colleges of Business Administration and Liberal Arts, the accrediting body visited the department and granted Level III re-accredited status on February 17-19, 2009.

In 2004, the Commission on Higher Education (CHED) issued Memorandum no. 52, 2007 with a subject of the revised policies and standards for undergraduate teacher education curriculum in accordance with the pertinent provisions of Republic Act No. 7722, otherwise known as the "Higher Education Act of 1994" and the purpose of rationalizing the undergraduate teacher education in the country to keep pace with the demands of global competitiveness. To guide Higher Education Institutions (HEIs), Article V Section 7- Curriculum Description states that "the curriculum design includes: foundational general education knowledge and skills, theoretical knowledge about teaching and learning, methodological skills, experiential knowledge and skills and professional and ethical values, and subject matter knowledge appropriate to the level of teaching (i.e., pre-school, elementary, or secondary)" (Admin, 2009).

These memoranda empowered all Higher Education Institutions to subject themselves to several methods of checking to ensure that the programs they are offering are in line with the mandated of the Commission. These methods qualify certain institutions as they check in the norms that constitute employability, program blueprint, feasibility in operation and services, and the like.

## Purpose of the Research

This study focused on the evaluation of CU graduates from the College of Education in school year 2008-2009. This specific academic year is uniquely identified by the researchers because it is the year where graduates from the College of Education emerged from two distinct curriculums. The first group of students is a graduate of the old curriculum, while the other group is a product of the newly implemented curriculum.

With this outcome in hand, the consideration of strengthening the old curriculum is no longer viable, since the curriculum itself is removed from the program and replaced with a new one. The remaining students of the old curriculum were re-evaluated of their credits earned and routed to finish the program under the new curriculum.

The study used the academic performances of the graduates from five (5) different outputs during their final year in the university. These areas include the grades they earned from General Education subjects, Professional Education Subjects, Practice Teaching Grades and Licensure Exam for Teachers (LET) results.

The research specifically contextualized the following concepts in an operational parameter. Each graduate will be a representative of the curriculum they graduated from with strong consideration that they experienced the program as described.

Specifically, the study attempted to provide answers to the following questions:

1. What are the general academic performances in three areas (General Education, Professional Education and Practice teaching) of the compared graduates of CU?

2. How are the Board Exam results of these graduates?
3. Are there significant effects of the CU training to the performance in LET?
4. What are the recommendations set from the findings regarding the factors that influence the performance rating of CU Education graduates?

This research is also set provide the international academic community information from a specific case of a teacher education program from the Philippines. This does not, however, represent the country as a whole, but to a certain extent, re-affirm the institution's stand as a recipient of the Center of Excellence Award from the Commission of Higher Education. It should also be noted that the respondents and their academic performance are not the decisive factor involved to achieve such distinction, but are in place to further enhance the CU-COEd (Capitol Unversity – College of Education) program through time.

## Methodology of Research

The initial phase of the study identified all the graduates of the College of Education for SY 2008-2009. The list was eventually trimmed down to the graduates of BEEd identified with 13 graduates from the old curriculum and 8 graduates from the new curriculum. It utilized two curricula types implemented on the start of the academic year of 2004-2005. The old curriculum is framed on the CMO 11, s1999 and likewise, the new curriculum was framed on the CMO 30, s2004 from the commission on higher education. It identified four (4) variables, namely General Education (GenEd) marks, Professional Education (ProfEd) marks, Practice Teaching (or teaching internships) and Mock Exam (also known as Pre-board Exam). The following variables are detailed below:

- General Education – The University has 81 units allotted for General Education. This is a program of courses in the Arts and Sciences that provides students with broad educational experience, at which the courses are typically introductory in nature. It provides fundamental skills in Mathematics, English, the Arts, Humanities, Biological and Physical sciences, and is usually a requirement for baccalaureate degree.
- Professional Education - the University allotted 75 units (15 subjects or courses) for Professional Education. It is a program under teacher education that provides technical and career proficiencies with strong academic and theoretical concepts through a series of core and specialized subjects. It is also designed to foster strong understanding and experience relating to disciplines in the academe preparing students for leadership roles in educating the community and beyond.
- Practice Teaching - The CU-COEd program exposed the students to an actual teaching environment and labeled this training as Practice Teaching. Students are assigned in classrooms as shadow teachers or teacher assistants, wherein the classroom supervisor provides a candid and qualitative rating at the end of the program
- Mock exam – This is the review program implemented by the University where experts in the LET review are invited to facilitate a testing procedure to simulate the testing environment. Aside from refreshing concepts from the four years of the education program that might be present in the Licensure exam proper, the program is also designed to remove anxiety and anticipation problems of the exam-takers by gradual and systematic simulation and advising. Contents of the answers of the exam takers are also rated like a regular LET exam along with techniques that might be useful in the exam proper.
- Licensure Exam for Teachers (LET) – this is the bi-annual exam administered by the Professional Regulatory Commission. Graduates need to present proof that they

have successfully completed the education program from an accredited institution. Upon evaluation and approval, an applicant needs to specify what area of teaching expertise he/she will be identified with. The examination usually takes the whole day, and upon successfully passing the test, an applicant may then be allowed to register as a professionally qualified teacher in the Republic of the Philippines.

With the available data, the research methodology involved the following procedures and methods:

1. Establish performance rating of the graduating class of 2008-2009 in terms defined by the official Capitol University grading system.
2. Secure the academic performances of the senior students from the graduating class of 2008-2009. Each subject/course was identified if it belongs to the Professional Education (ProfEd) Subjects or General Education (GenEd) Subjects. This can be obtained by officially requesting the program coordinator to provide the ratings of the student-respondents covered in the study according to the academic year they spent in the institution. The University grading system is a pre-defined system of evaluating student performances ranging from the lowest value of 5.0 (failed), 3.5 (passed) up to 1.0 (excellent). It composes student output from examination, quizzes, class performances, projects, term exams and special activities trom three (3) terms (Prelim, Midterm and Final).
3. Secure Practice Teaching marks from the registrar. This information is also crucial to validate marks previously released by the program coordinator and to cross-check their accuracy.
4. Update actual LET performances from PRC. LET results also need to be categorized to determine performance variations. The PRC releases two LET results per year on national publication, but institution performances are dispatched to the academic community through registered mail.
5. Perform comparative, linear regression analysis on the said data to arrive on conclusions on how and why such performances behaved according to applicable statistical tools. Linear regression (Rodriguez, 2010) is powerful than other non-parametric methods, the limited number of cases in the present sample and the type of measurement used constraints to provide an accurate basis of generalization. General log-linear modeling is a set of methods and procedures to obtain a model of association between variables.
6. Derive Models from Log-linear analysis. This deals with association of categorical or grouped data, looking at all levels of possible main and interaction effects with the primary purpose of finding the most parsimonious model which can account for cell frequencies in a table. Logit modeling is similar to log-linear modeling but explains one or more dependent categorical variables.
7. Perform The Goodness – of – fit test. This measures the acceptability of the model by the likelihood of the ratio of its chi-square. For two – way tables, traditional Pearson chi-square may be used also. Both are based on assessing the difference between observed cell frequencies and frequencies predicted by the model. A significant likelihood ratio means that one rejects the null hypothesis that the researcher's restricted (parsimonious) model does not differ from the trivial saturated model (Heinrich, 2004).

PROBLEMS
OF EDUCATION
IN THE 21st CENTURY
Volume 39, 2012


## Results of Research

The two education curricula differ and concur with each other. Both programs allow students to graduate when they successfully complete the courses designed by their specific CMO's, granting them the title of a bachelors degree. On the other hand, several subjects were improved in the new curriculum, and at some, an additional of one (1) unit was added to Professional Education Programs (what used to be a 3-unit course became a 4-unit course, with a unit of coursework added). What used to be a 12-unit practice teaching course from the old curricula was implemented as a 6-unit course in the new curricula; the six units gained was then redistributed to six professional education subjects as field studies. This was immediately implemented in the new curricula.

The respondents were rated according to four (4) variables common to them, namely: average of the final marks from the General Education & Professional Education components of the program, marks from Practice Teaching, and marks from the Mock Exam. These variables were used as independent factors that contribute to the success or failure in their specific LET results.

Out of the 13 graduates from the Old curriculum, 46% (6) passed the LET, while 75 % (6 out of the 8) of the graduates from the new curriculum also did the same. The 2009 LET was based on the Table of Specifications (TOS) of CMO 30, s2004.

The count of graduates was limited only to the graduates of the Bachelor in Elementary Education (BEED). The ratings in General Education and Professional Education were subjected to a five-level Likert scale.

First, the study looked into the performance of these graduating students in terms of their marks in subjects concerning the field of General Education. The following table summarizes the ratings:

**Table 1. Curriculum Performances according to Verbal Interpretation, General Education.**

| General Education | | | | |
|---|---|---|---|---|
| Interpretation | *Old curriculum* | | *New curriculum* | |
| | f | % | f | % |
| Fair | 4 | 30.8 | 1 | 12.5 |
| Satisfactory | 2 | 15.4 | 2 | 25 |
| Very Satisfactory | 7 | 53.8 | 2 | 25 |
| Excellent | 0 | - | 3 | 37.5 |
| Total | 13 | 100 | 8 | 100 |

The CU-COEd program has 81 units allotted for General Education. From the 13 graduates of the old curriculum, a large number of them performed very satisfactorily, although no one got an excellent rating. The new curriculum produced two (2) graduates with impressive excellent marks.

**Table 2. Curriculum Performances according to Verbal Interpretation, Professional Education.**

| Professional Education | | | | |
|---|---|---|---|---|
| **Interpretation** | *Old curriculum* | | *New curriculum* | |
| | f | % | f | % |
| Fair | 1 | 7.7 | 0 | - |
| Satisfactory | 7 | 53.8 | 2 | 25 |
| Very Satisfactory | 4 | 30.8 | 5 | 62.5 |
| Excellent | 1 | 7.7 | 1 | 12.5 |
| Total | 13 | 100 | 8 | 100 |

On the other hand, the same program has 75 units allotted for Professional Education. From the 13 graduates of the old curriculum, only one of them performed excellently while the rest just performed very satisfactorily and satisfactorily. The new curriculum graduates produced also one (10) graduate with impressive excellent marks with the rest having very satisfactory and satisfactory ratings.

**Table 3. Curriculum Performances according to Verbal Interpretation, Practice Teaching.**

| Practice Teaching | | | | |
|---|---|---|---|---|
| **Interpretation** | *Old curriculum* | | *New curriculum* | |
| | f | % | f | % |
| Satisfactory | 2 | 15.4 | - | - |
| Very Satisfactory | 6 | 46.2 | 6 | 75 |
| Excellent | 5 | 38.5 | 2 | 25 |
| Total | 13 | 100 | 8 | 100 |

The CU-COEd program exposed the students to an actual teaching environment and labeled this training as Practice Teaching. Students are assigned in classrooms as shadow teachers or teacher assistants, wherein the classroom supervisor provides a candid and qualitative rating at the end of the program. From the graduates of the old curriculum, a large number performed very satisfactorily, while five of them got excellent ratings. The new curriculum graduates produced two (2) graduates with impressive excellent marks, while six performed well with very satisfactory marks.

**Table 4. Curriculum Performances according to Verbal Interpretation, Pre-Board Exam Results.**

| Pre-board Exam Result | | | | |
|---|---|---|---|---|
| Interpretation | *Old curriculum* | | *New curriculum* | |
| | f | % | f | % |
| Failed | 1 | 7.7 | - | - |
| Poor | 11 | 84.6 | 5 | 62.5 |
| Fair | 1 | 7.7 | 3 | 37.5 |
| Total | 13 | 100 | 8 | 100 |

One of the features unique to the Capitol University is the inclusion of a review course in its regular student academic load on their fourth and final year. This subject is a review course of all subjects taken during the stay of the students in the university at which its examination protocol might provide a simulation of the board exam. Students are given examinations in different subject matters, with answering procedures similar to that of the Licensure exam for Teachers (LET). The graph above shows that the old curriculum graduates performed poorly, while majority of the new curriculum graduates also performed this way.

Finishing the BEEd course usually takes four years. A graduate is then recommended to take the Licensure Exam for Teachers (LET) administered by the Professional Regulation Commission (PRC). The commission is an independent body formed to regulate and certify discipline specific professionals from the Philippines. A document from their website (PRC, 2011) indicates the summary of their services, stating:

> "The Professional Regulation Commission is responsible for the administration, implementation and enforcement of regulatory policies on the regulation and licensing of various professions and occupations under its jurisdiction. It is the instrument of the Filipino people in securing for the nation a reliable, trustworthy, and progressive system of developing professionals whose personal integrity and spiritual values are solid and respected, whose competencies are globally competitive, and whose commitment to serve the Filipino nation and the whole community is strong and steadfast. "

21 graduates from the BEED program of Capitol University, with 13 from the old curriculum and 8 from the new curriculum were monitored in this study. The examination encompasses two fields, namely: 1.) the General Education concepts, and 2.) the Professional Education concepts. By definition, a graduate takes the exam and has to achieve an average grade in the two fields of at least 75% (Capitol University, 2009).

From the 13 graduates of the old curriculum who took the board exam, 46% of the takers passed the exam while 54% needs additional intervention to make it through. The new curriculum applicants fared better with 75% of them earning their license to teach, while a quarter of the takers were on the threshold of passing the said exam.

**Table 5. Curriculum Performances and Board Exam Results.**

| Licensure Exam for Teachers (LET) Results | | | | |
|---|---|---|---|---|
| Interpretation | *Old curriculum* | | *New curriculum* | |
| | f | % | f | % |
| Failed | 7 | 53.8 | 2 | 25.0 |
| Pass | 6 | 46.2 | 6 | 75 |
| Total | 13 | 100 | 8 | 100 |

Regression was used to determine the significant effect/s of each variable to the LET performance, while two models were formulated to represent the mathematical relationship of significant factors pertinent to the LET results of the graduates.

*Statistical Model 1- Using Linear Regression (LET results as Interval Data)*

This statistical model answers the question whether the 5 identified independent variables (Grades in General and Professional Education and Practice Teaching, Pre-board performance and Curriculum), when used as independent factors, will have specific significance to the graduates' performance on the actual Board Exam results as dependent variable. The first model uses the actual published grades of the CU examinee as ordinal data.

**Table 6. Co-efficient and p-values.**

| Co-efficient | p-value |
|---|---|
| **b = 71.38** | 0.145 |
| **$b_1$ = 1.87** | 0.007 |
| Beta coefficient, r = 0.574; r2 = 0.329, p = 0.007 | |

Thus, this model was derived:

Model 1: Y = 71.38 + 1.87 Pre-board

Table number 6 explains the degree of correlation between the independent variables as a whole and the dependent variable is moderately strong with a coefficient of 0.574 and significance level at 0.007. Only the pre –board result has significant effect on the licensure performance of students in this model which indicates that about 33 percent of the variation of result in the pre-board explains the random variation in the licensure exam result. Other variables (e.g. Grades in General, Professional Education & Practice Teaching and Curriculum types) did not pose a significant impact on the performance of the board exam results.

*Statistical Model 2- Using General Log-linear model (LET results as Categorical Data)*

The data above is reduced to this General Log-linear model:

**Model 2** = Constant + [Preboard = 1] + [GenEd = 4]*[Prof = 4] + [GenEd = 2]*[Prof = 3] + [Teach = 4]

The Design is the performance of the students with all the variables considered, while the Constant is the effect of the board performance when all the other variables are at 0. All other values are generated from the Log-Linear analysis. The variable and values under 'curriculum' has been removed from the model because they are not needed to explain the observation.

**Table 7. General Log-Linear Analysis Results.**

**Dependent Factor (Y)**

| Parameter | Estimate | Z- value | Odds ratio |
|---|---|---|---|
| [Pre-board = 1] | 1.3863 | 2.48 | 4 |
| [GenEd = 4]*[Prof = 4] | 1.6094 | 1.47 | 4.99 |
| [GenEd = 2]*[Prof = 3] | 1.3863 | 1.24 | 4 |
| [Teaching = 4] | 0.539 | 1.13 | 1.71 |

The odd ratio is the exponential value of the parameter estimate b or Exp (b). Odds ratio is the ratio of two odds. Odds ratio of 1.0 indicate no effect. Odds ratios greater than 1.0 indicate the variable in question increases the odds associated with the dependent variable. Odds less than 1.0 indicate the variable decreases the odds. The odds ratio is the probability of an event to occur divided by the probability of the corresponding event not to occur.

From the Table of Log –linear analysis, at least getting a rating of 1 in the pre-board exam has four times the odds of passing the licensure exam over and beyond those predicted by other variables. A student who has very satisfactory performance in the General Education and Professional Education has 5 times the odds of passing the licensure exam but the result is not statistically significant or the effect is not associated with the changes in the cell frequencies which are predicted by other variables. Students with very satisfactory rating in their teacher practicum have about twice the odds of passing the licensure exam. This is not significant as well.

**Table 8. Test of Goodness of Fit.**

| Statistics | $\chi^2$ | df | p |
|---|---|---|---|
| Likelihood Ratio | 38.04 | 124 | 1.000 |
| Pearson | 55.38 | 124 | 1.000 |

The goodness-of-fit result above shows the acceptability of the model being tested above. The researcher tested the values to see if a restricted model does not significantly differ from the saturated model.

## Conclusions

Based on the results the following conclusions are derived:

The Linear Regression model used the five variables against the LET results and concluded that only the Pre-Board results variable has significant effect on the performance of the LET results. The General Log Linear model also used the five variables against the LET results, but the goodness-of-fit criterion removed the variable 'curriculum' as it failed to satisfy the likelihood ratio chi-square and Pearson chi-square test. The University implemented both CMOs effectively, providing the study a conclusion that the high performance of the first 3

variables (GenEd, ProfEd Grades and Practice Teaching) as indicators of a robust curricula that addresses the contexts derived from the said parameters. While both models conclude that only the Pre-Board results variable has significant visible effect on the performance of the LET results, it is safe to theorize that the implementation of both curriculums reflected the immediate address of the needs identified with the first three identified variables. This would also in acquiesce with Capitol University's thrust in providing high quality teacher education. However, the limitation and inadequacy of data available for this conclusion could also be a factor.

## Recommendations

This recommendation is focused on the finding that the odds are high for students earning high marks in Pre-board exams are more likely to pass the actual Board exam than all the other factors considered. This generalization is also supported by both models presented above.

It is highly recommended to strengthen the Pre-board Program currently implemented by the University by adding more hours to student engagements. This can be made possible by attaching mock board-exam testing as a simulation at the end of each course identified with General and Professional Education.

This practice may lessen student anticipation as a stress factor that is identified with National exams. By integrating board-like simulation exams at the end of each course, more time is allotted to the attuning of the students' perspective in taking licensure exams. In addition, it will also expose them to scenarios like these as early as possible, giving them the opportunity to loosen up easily during the actual exam.

The pre-board exam activities currently undertaken by the university are perceived to be of great help to the graduates, as its content and methods defined contribute much to the ability of a graduate to pass the exam.

## Acknowledgements

Gratitude is extended to Engr. Marcel Budlong for the statistical methods used in deriving conclusions for this study. The same is also extended to Mr. Camilo Ranoa of the College of Arts and Science for providing the raw data used in this study.

## References

Admin, E. W. (2009, February 27). *EduPhil Forum.* From Addendum to CMO 30, s. 2004: http://www.ziddu.com/download/13919655/cmo52s.2007.pdf.html, Retrieved May 12, 2011.

Capitol University. (2009). *CU Student Manual (Revised 2009).* Cagayan de Oro City: Capitol University Press.

Chickering, A. G. (1991). *New Directions for Teaching and Learning.* San Fransisco: Jossey-Bass Inc.

Heinrich, J. (2004). *Goodness-of-Fit*, from CDF Website: http://www-cdf.fnal.gov/physics/statistics/recommendations/goodnessoffit.html Retrieved on August 4, 2011

PACOCOA. (2009). *Accreditation Process Website*. From PACUCOA policies and accreditation procedure: http://www.pacucoa.ph/pacucoa_policies&steps_accreditation.htm, Retrieved June 25, 2011.

PRC. (2011). *The PRC Official Website*. From Registration and Licensing: http://www.prc.gov.ph/default.aspx, Retrieved July 18, 2011.

Rodriguez, C. (2010, August). *The Princeton University Website.* From wws509 notes: http://data.princeton.edu/wws509/notes/c5.pdf, Retrieved August 1, 2011.

Rosenberg, D. (1997, December). *Maternal and Child Health Bureau Webpage.* From The Maternal and Child Health Information Resource Center: http://mchb.hrsa.gov/mchirc/_pubs/trend_analysis.pdf, Retrieved August 4, 2011.

Torres-Reyna, O. (2009, November 11). *Princeton University Training* . from Regression Samples: http://dss.princeton.edu/training/Regression101.pdf Retrieved August 4, 2011.

*Advised by Numer G. Escalante, Capitol University, Philippines*

Received: *January 10, 2012* Accepted: *February 07, 2012*

***Martiniano Jake Parawan Neri III***
Professor, Research Associate, CUREXO-IDS, Capitol University, Corrales - Osmeña Extensions, 9000 Cagayan de Oro City, Philippines.
E-mail: docachmed@gmail.com
Website: http://www.cu.edu.ph

ISSN 1822-7864