

# JUXTAPOSING 21<sup>ST</sup> CENTURY SKILLS COMPETENCY BASE READINESS: FOR A PROPOSAL STUDENT TEACHER TRAINING PROGRAM

**Baluyot, Maria Kristine May B., Sevilla, Allain James Mallari, Erica Mae E.,  
Angeles, Fritzie L., Carlos, Neirylyn, David, Roxan S.**  
*Bataan Peninsula State University( Balanga Campus), Philippines*  
*Email ID: ajmsevill@bpsu.edu.ph*

## ABSTRACT

*Pre-service teaching is the preparation stage for future teachers, which is necessary for every profession. It is not only to mold the skills of teachers but including the future of every country. Their competencies based on the 21st Century Philippine Professional Standards skills (Critical Thinking, Collaboration, Creativity and Innovation, and Communication) are evaluated. Their level of Competency-Based Teaching Readiness in different categories (Content Knowledge and Pedagogy, Learning Environment and Diversity, Curriculum and Planning, and Assessment and Reporting) are measured. Quantitative correlation is used as the methodology to determine the significant relationship between 21st century and competency-based- teaching readiness and the significant difference in Competency-Based Teaching Readiness of Pre-service Teachers when grouped according to their field and academic performance in professional education. The study presents whether Competency- Based Teaching Readiness is influenced depending on the participant's field of specialization and academic performance. One of the findings showed that there is a highly significant and positive relationship between 21st Century Philippine Professional Standards' skills and Competency-Based Teaching Readiness. There is a Direct proportion of results as the higher the competency, the more equipped the pre-service teachers pinpointed. For the recommendation, the researchers formulated and drafted an interactive event that would help the pre-service teachers broaden their perspective on the importance of competency and acquiring the necessary skills in teaching. Progressive efforts in the training systems shall be made to ensure that adequate skills to teach the current and future generations are acquired.*

**KEYWORDS: 21st Century Skills, Pre-Service Teachers, Stakeholders, Competency- Based Teaching Readiness**

## Introduction

Preparation is necessary for taking a new milestone and is a must for each person moving forward. In the field, it is a prerequisite for the students to be fully equipped and trained before formally becoming a teacher. And for every student, it is one of the most crucial components of every teacher's education because it trains student teachers to become qualified teachers. These pre-service teachers not only mold the education students' future but the future of the country's next generation. Pre-service allows having actual and practical experience in teaching students of their corresponding grade level.

In the United States, the pre-service program is being done through community-based experiences. Specifically, pre-service teachers worked weekly in an urban public school museum location as part of the required undergraduate content area literacy teacher education course. Working in this community based-setting provided expanded and varied opportunities for pre-service teacher learning, including practice using and facilitating small group instruction and opportunities (Hamilton and Margot, 2019). Pre-service teachers are typically trained for at least three years before being put in schools for practicum in the majority of teacher education contexts in Malaysia.

The education system in the Philippines' main goal is to produce a quality education in the Philippines. The Department of Education released an order about the National Adaptation and Implementation of the Philippine Standard for Teachers (PPST). Based on the notion of lifelong learning, which refers to the systematic acquisition, upgrade, and promotion of self-directed learning, it recognizes the relevance of professional standards in the ongoing

professional development and advancement of teachers (DepEd Order no.42s.2017). This gives the opportunity to pre-service teachers to have actual and practical experiences in teaching students. To gain the proper skills and competencies with the guidance of professional teachers to be qualified in the field of teaching is the goal of this program.

Producing competitive teachers need experience in the field of their specialization. The Bataan Peninsula State University College of Education Balanga Campus' mission was to develop competitive graduates and empowered community members. The college of education became consistent in the field of education by becoming the highest college in region three in the recently conducted licensure exam for teachers and also, it takes only one year for students to be hired in their professions. And behind all this success there is the competency-based training that the pre-service teachers endured during the training time. And those competencies are a big factor why the college of education continuously produces competitive graduates.

## METHODOLOGY

This study employed the quantitative-correlational method of research. Correlational designs as defined by Creswell (2012), are procedures in quantitative research in which the researchers measure the degree of relation between two or more variables using the statistical procedure of correlational analysis. This degree of association that indicates whether the two variables are related or whether one can predict another was expressed in numbers. Correlational research represents a general approach to research

that focuses on assessing the covariance among naturally occurring variables. The researchers decided to use this method to clearly determine the different

Lastly, questionnaires

the third set of was adapted from relationships between the variables of this study.

### Respondents of the Study

The respondents of this study are the Bachelor of Secondary students with Majors in Filipino, Social Study, and English respectively. The researchers used the G-Power sample size calculation, from the g-power of the target respondents in this study with a sample size of 137 respondents. G-Power (Erdfelder, Faul, & Buchner, 1996) was designed as a general stand-alone power analysis program for statistical tests commonly used in social and behavioral research. This is to ensure that the researchers used the appropriate sample size reflecting the effect of each variable on one another when undergoing different statistical tests showing the correlation of the data gathered.

### Research Instrument

This study used three (3) sets of questionnaires. The first set of questionnaires was the profile of the respondents. Which classified their field of specialization and their academic performance based on the professional education course.

Meanwhile, the second set measured 21st-century skills. This questionnaire was adapted from Ravitz, J.(2014). It is composed of 22 items with a 4-point scale

Range	Interval
1.00-1.49	Very High
1.50-2.49	High
2.50-3.49	Low
3.50-4.00	Very Low

Philippine Professional Standard for Teachers. The said instrument has 14 items.

### Contribution and Validation of Research Instrument

The researchers adopted the questionnaire of Jason Ravitz, 2014 to measure 21st-century skills. The said instrument is found reliable due to its 0.90 index of reliability.

On the other hand, the researchers also adopted the items for the readiness to the Department of Education (DepEd) Philippine Professional Standards for Teachers.

### Population and Sample of the Study

The pre-service teachers' respondents contained 137 from three (3) fields of specialization namely English, Filipino, and Social Studies.

Sample of the Study

Majors	Popula tion	Sample	Percen tage%
Filipino	71	66	43
Social Studies	68	43	28
English	59	44	29
Total	198	153	100

### Data Gathering Procedures

The researchers submitted a formal letter of approval to the Dean of the College of Education in conducting the data gathering for this study. The researchers exhausted the time of

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availability from the respective classes to prevent any official class interruptions. The data gathered were statistically treated, analyzed, and interpreted.

### Statistical Treatment of Data

The responses are tabulated, categorized, and coded concerning their relevance to the study. The researcher used frequency and percentage to present the data. In addition to that the researchers also used the weighted mean to measure 21st century skills and the competency-based teaching readiness based on the Philippine Professional Standard for Teachers.

Moreover, to test the significance difference between the Competency-Based Teachers Readiness and field of specialization the researchers used chi-square since they are both categorical. But on the other hand, being able to measure the significance difference between Competency-Based Teaching Readiness and Academic Performance Z-test is being used since the first independent variable is categorical and the latter is contiguous data.

### RESEARCH FINDINGS

1. Majority of the pre-service teachers who participated in this research study are Filipino majors and 87.5% of the respondents are above average in terms of their academic performance in professional education.

The following findings are observed for the 21st Century Skills:

- 1.1. In terms of Critical Thinking category, the respondents fell under the highly skilled classification with the grand mean of 1.86 and a standard deviation of 0.52 indicating that the scores are not scattered.
- 1.2. Summarizing or creating their own interpretation of what they have read or

been taught produces the highest score while solving complex problems or answering questions that have no single option has the lowest score.

- 1.3. The respondents can be gleaned highly skilled in terms of collaboration skills as the scores produced a grand mean of 1.68 and a standard deviation of 0.56. Working in pairs or small groups to complete a task together seems to work well for the respondents and creating joint products contributions from each student seems to be a struggling collaborative work for them.
- 1.4. The respondents can be gleaned highly skilled in terms of communication skills as the scores produced a grand mean of 1.87 and a standard deviation of 0.56. Structure data for use in written products or oral presentation (e.g., creating charts, tables or graphs) is the most comfortable communication skill of the respondents. On the other hand, Answering questions in front of an audience is the least form of communication skill.
- 1.5. The respondents can be gleaned highly skilled in terms of creativity and innovation skills as the scores produced a grand mean of 1.84 and a standard deviation of 0.53. Using idea creation techniques such as brainstorming or concept mapping is the category with the highest score and inventing a solution to a complex, open-ended question or problem garnered the least score.
2. The following are the findings for the level of Competency- Based Teaching Readiness of pre-service teachers as to:
  - 2.1. The results showed that the respondents are ready in terms of Content Knowledge and Pedagogy with a grand mean of 1.93 wherein applying a range of teaching strategies to develop critical and creative thinking, as well as other higher-order thinking skills gained the highest number of responses.
  - 2.2. In consideration of CBTR in Learning Environment and Diversity, the respondents are also ready garnering a total mean of 1.86 with managing learners' behavior constructively by applying positive and non-violent discipline to ensure learning-focused

environments getting the highest score.

23. CBTR in Curriculum and Planning results showed that respondents are ready garnering a total mean of 1.88 having the indicator of participation in collegial discussions that use teacher and learner feedback to enrich teaching practice garner the highest score.

24. Lastly, CBTR in Assessment and Reporting results showed that respondents are ready garnering a total mean of 1.92 with “monitor and evaluate learners’ progress and achievement using learner attainment data” having the highest score among the indicators.

3. The results showed that there is no significant difference between Competency-Based Teaching Readiness of Pre-Service Teachers when they are grouped according to their field of specialization. On the other hand, when grouped with academic performance in professional education, the result showed that there is a significant difference between it and the Competency- Based Teaching readiness of the Pre-service teachers.

4. There is a positive relationship between 21<sup>st</sup>-century skills and the Competency-Based teaching readiness of the Pre-service teachers. This implies that the higher the competence of the pre- service teachers in terms of 21st-

century teaching skills, then the readier they are.

## DISCUSSION

Description	Frequency	Percent age (%)
<b>1.1 FIELD OF SPECIALIZATION</b>		
Filipino	66	43
English	44	29
Social Studies	43	28
<b>Total</b>	<b>153</b>	<b>100</b>
<b>1.2 ACADEMIC PERFORMANCE IN PROFESSIONAL EDUCATION</b>		
Above Average	134	87.5
Average	15	10
Superior	2	1.3
Very Superior	1	0.6
Fair	1	0.6
<b>Total</b>	<b>153</b>	<b>100</b>

**Table 1. Profile of the Pre-Service Teachers**

superior in their level, only 1 or 0.6% for both Very Superior and Fair level, respectively.

Partnership for 21st Century Skills (P21) and the National Education Association (NEA) both agree that life in the workplace and at home today is far more complex than it was 50 years ago. That is why it is necessary to ensure that educators are fully equipped as they play a noble role of instilling a strong foundation for the future generation. As seen in the table above, even though it indicates that respondents are highly skilled, none of the scores under any indicators fell close in attaining a very high evaluation of their skills.

**Table 2. Level of the 21<sup>st</sup> Century Philippine Professional Standards for Teachers’ Skills**

SKILLS	Mean	Verbal Interpretation
Critical Thinking Skills	1.86	High
Collaboration Skills	1.68	High
Communication Skills	1.87	High
Creativity and Innovation Skills	1.84	High
<b>Grand Mean</b>	<b>1.81</b>	<b>High</b>
Legend: Range – 1.00 - 1.49 (Very High); 1.50 – 2.49 (High); 2.50 – 3.49 (Low); 3.50 – 4.00 (Very Low)		

Table presents the description of the Pre-service teachers in terms of their field of specialization and academic performance in professional education subjects

### Field of Specialization

The data shows that the majority of the respondents, 66 or 43% are specializing in Filipino, 44 or 29% are majoring in English, and 43 or 28% are specializing in Social Studies.

### Academic Performance

The pre-service teachers are described based on their academic performance. According to the data above, the majority of the pre-service teachers 134 or 87.5% belong to the Above Average Rating, 15 or 10% belong to the average level, 2 or 1% are

The table below shows the summarized result for the respondents' level of competency-based teaching readiness which showed that they are ready having the grand mean of 1.897.

**Table 3 Level of Competency-Based Teaching Readiness**

Competencies	Mean	Verbal Interpretation
Content Knowledge and Pedagogy	1.93	Ready
Learning Environment and Diversity	1.86	Ready
Curriculum and Planning	1.88	Ready
Assessment and Reporting	1.92	Ready
<b>Grand Mean</b>	<b>1.897</b>	<b>Ready</b>
Legend: Range – 1.00 - 1.49 (Very Much Ready); 1.50 – 2.49 (Ready); 2.50 – 3.49 (Slightly Ready); 3.50 – 4.00 (Ready)		

**Table 4. Significant Difference between Pre-Service Teachers' Competency-Based Teaching Readiness and their Field of Specialization**

	N	Degrees of Freedom	Level of Significance	X <sup>2</sup>	p-value	Decision
CBT Readiness	153	4	0.05	8.153	0.086	Accept Null Hypothesis
Field of Specialization						

A chi-square test of independence was performed to examine the difference between the Competency-Based teaching readiness of pre-service teachers and their field of specialization, as shown in Table 4.1. The relation between these variables was insignificant,  $X^2(4, N = 153) = 8.153$ ,  $p = 0.086$ . Meaning, the Competency-Based Teaching Readiness of the respondents is independent of their field of specialization. Based on the data, the computed p-value is 0.086, given that it is greater than 0.05 level of significance. This means that there is no significant difference between the two variables.

**Table 5. Significant Difference between Pre-Service Teachers' Competency-Based Teaching Readiness and their Academic Performance**

	N	df	Sig. Level	Z-Value	Z Critical Value (two-tailed)	p-value	Decision
CBT Readiness	153	152	0.05	4.867	1.959	0.000	Reject Null Hypothesis
Academic Performance							

A Z-Test was used to determine the significant difference between Competency-Based Readiness and the academic performance of the Pre-service teachers since the first data is categorical and the latter is continuous, respectively.

Based on Table 4.2, the null hypothesis is rejected since the computed p-value is 0.000, given that it is less than 0.05 level of significance. This means that the result is statistically significant and even highly significant since it is less than 0.01. Moreover, it shows that the Competency-Based Teachers' readiness is dependent on the academic performance of the respondents since the computed Z-value, is 1.959. Therefore, it can be said that there is a significant difference between the Competency-Based Teaching readiness of the Pre-service teachers to their academic performance.

**Table 6. Relationship Between the 21<sup>st</sup> Century Skills and the Competency-Based Teaching Readiness of Pre-Service Teachers**

Variables	Correlation Coefficient	Probability Value	Remarks
21 <sup>st</sup> Century Skills x Competency-Based Teaching Readiness	.305	.000	Highly Significant

Based on the data gathered, it shows that the result is of highly significant relationship since the Probability Value

is .000 given that it is lesser than 0.05 and even lesser than 0.01 level of significance. The correlation coefficient obtained is .305, which means that there is a positive relationship between 21<sup>st</sup>- century skills and the Competency- Based teaching readiness of the Pre- service teachers. This implies that the higher the competence of the pre-service teachers in terms of 21st-century teaching skills, then the readier they are.

## CONCLUSIONS

The following has been concluded based on the finding of this study:

1. The respondents of this study are highly skilled in terms of 21st Century Skills specifically, in collaborative aspects.
2. Pre-service teachers at the BPSU-Balanga Campus are ready based on the Level of Competency-Based Teaching Readiness.
3. Respondents' field of specialization has nothing to do with their readiness to teach. Their Academic performance, however, has a direct influence on the readiness of the respondents.
4. 21st Century Teaching skills competency are essential in determining the readiness of a pre-service teacher.

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