

The Level of the 21st Century Skills of Pre-service Teachers in the University of Eastern Philippines

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ABSTRACT

To develop an improvement program for student teaching, the study evaluated the degree of 21st century abilities held by pre-service teachers in the UEP system. It specifically determined the profile of pre-service teachers at the University of Eastern Philippines' three campuses in terms of sex, annual income, the type of high school attended, degree program, and academic performance: as well as the profile of cooperating teachers and supervising teachers in terms of sex, educational attainment, academic rank, years of experience as cooperating teachers, and training-teachers seminar attendance.

The survey also evaluated the respondents' degree of 21st century abilities in terms of learning and innovation skills, effective communication skills, life and career skills, and information, media, and technology skills as perceived by pre-service teachers and cooperating teachers. The study determined the differences in the levels of 21st century skills of the pre-service teachers as perceived by the pre-service teachers themselves, the cooperating and supervising teachers. It also determined the relationship between the profile of the cooperating teachers and the level of 21st century skills of the pre-service teachers.

Keywords: *Cooperating teacher, 21st century skills, Student teaching program, life and career skills, enhancement*

1. INTRODUCTION

Meeting the problems of our e-society today demands educational quality more than ever. The prevalent belief and problems that pupils are not being adequately prepared for survival by the Philippine educational systems, making them unprepared for success in life, the workforce, and citizenship. These significant alterations are to blame for the clear outcomes of the current educational system. People currently live in a more diversified, globalized, and

complicated media-saturated society that was ushered in by a major technology revolution.

Individuals today learn in quite different ways than they did decades ago. Before, illiterates were those who could not read, write, or perform basic math operations; today, they are people who are unable to learn, unlearn, or relearn. Given the shifts and changes from traditional classrooms to virtual classrooms, ordinary libraries to online public access catalogues OPAC, simple highways to cyberspace, tribal natives to digital natives, calculators to iPads, face-to-face classes to web-based or web-centric learning, and regular citizens to netizens, some people may find it challenging and difficult to implement effective education delivery systems. Everyone today has a pressing need to know thanks to the emergence of global knowledge, which has sped up globalization in all spheres of life.

For many educational institutions, expanding internationally has been a trend. Schools in academic communities have been reorganized to provide an emphasis on course subject proficiency. The old didactic approach to education is being replaced with inquiry-based learning, which requires students to actively build knowledge (Chu: 2011). It has already been highlighted that pupils must be prepared to fulfill the international standards needed in the global world. The objective of this information-driven approach is to generate literate pupils who are capable of learning, unlearning, and relearning information in a world where there is an abundance or explosion of data that is just ready to be converted into knowledge.

It makes sense that educational institutions would turn out literate individuals who can perform their civic rights and responsibilities and participate in the global market. In other words, the global market needs a workforce that is highly educated and talented and is capable of making the seemingly impossible, possible.

The knowledge revolution highlights the necessity to examine our perception of the information that graduates in the twenty-first century will need. In order to solve the pressing issues in most schools, including the necessity to reorganize educational systems, this age promotes collaboration from all areas of government intimately involved with education. Pedagogies will be created, and objectives will be met if educational institutions are to provide students with excellent service in the twenty-first century.

2. OBJECTIVES OF THE STUDY

The University of Eastern Philippines system's pre-service teachers' 21st century competencies were evaluated in the study, which served as the foundation for improving the student teaching program. It specifically aimed to:

1. determine the profile of the pre-service teachers in the three campuses of of the University of Eastern Philippines in terms;
 - a. sex;
 - b. annual family income;
 - c. type of high school attended;
 - d. degree program; and
 - e. academic performance.
2. determine the profile of the cooperating teachers and supervising teachers in terms of:
 - a. sex;
 - b. educational attainment;
 - c. academic rank;
 - d. years of experience as cooperating teacher; and
 - e. training-teacher seminar.
3. assess the level of the 21st century skills of the respondents as perceived by the pre-service teachers and cooperating teachers in terms of:
 - a. learning and innovation skills;
 - b. effective communication skills;
 - c. life and career skills; and
 - d. information, media and technology skills.

3. METHODOLOGY

Locale of the Study

The cooperating schools in the Department of Education's Northern Samar Division and University of Eastern Philippines campuses were where the study was mostly done.

The Institution of Eastern Philippines (UEP) is the first state university in the Visayas and is spread throughout several areas of the Philippine province of Northern Samar.

By virtue of Republic Act 4126, which was written by Congressman Eladio T. Balite, it was first founded as Catarman National High School (CNHS) in 1918, changed to Samar Institute of Technology (SIT) in 1957, and finally changed to University of Eastern Philippines (UEP) in 1964. Today, UEP is a system with three campuses: the Pedro Rebadulla Memorial campus in Catubig, Northern Samar; the Laoang campus in Laoang, Northern Samar; and the Main campus in University Town, Catarman, Northern Samar.

Research Design

The descriptive-correlational research design was used for the investigation. The study covered the sex, family income, kind of high school graduation, degree program, and academic achievement of the pre-service teachers as well as the profiles of the cooperating and supervising teachers who served as their mentors. According to the pre-service teachers and the cooperating/supervising teachers, the study also defined the degree of 21st century abilities along the four indicators of effective communication skills, learning and innovation skills, information, media and technology skills, and life and career skills.

To ascertain whether there is a relationship between the profile of the pre-service teachers and their level of 21st century skills, as well as between the profile of the cooperating/supervising teachers and their level of 21st century skills, the study used a correlation design.

The Respondents of the Study

Students from the College of Education at the three campuses who were formally enrolled in student teaching during the second semester of the academic year 2013–2014 served as the study's primary respondents. They were fourth-year students enrolled in the following courses: bachelor's degrees in elementary education (BEED), secondary education

(BSEd), combined bachelor's degrees in elementary education and home economics (BEED-HE), industrial education (BSIE), and home economics (BSHE), as well as bachelor's degrees in technical teacher education (BTTEd).

The pre-service teachers' respective cooperating teachers in chosen DepEd cooperating schools and their supervising instructors from the university's three campuses made up a separate sample of responders.

Research Instrument

An instrument modified for the study that was based on the P21 Framework was used (www.p21.org). It was changed in order to incorporate the 21st century skills utilized in the Philippines as well as the regional context. To fit the structure of the Philippine K-12 curriculum goals, several items were added and altered.

The pre-service teachers' questionnaires were divided into two sections: the profile and the degree of 21st century competencies. The profiles and degree of 21st century skills of the prospective instructors are both included in the questionnaires for cooperating/supervising teachers.

Data Gathering Procedure

Following the determination of the validity of the instrument for the respondents, letters requesting permission to conduct the study were sent to the offices of the university president, chairs of the college of education on the two satellite campuses, and the superintendent of the DepEd Schools Division through the director of graduate studies, noting that permission was needed to distribute questionnaires to the study's target respondents in the various elementary and secondary schools.

The results were organized, totaled, compiled, and thoroughly analyzed after weeks of questionnaire distribution and data gathering.

4. DISCUSSION

Respondents Perceived by the Pre-Service Teacher's Cooperating Teachers and Supervising Teachers as Life and Career Skills

A very high level of 21st century skill was demonstrated by the pre-service teachers, who earned a mean score on life and career skills of 4.48. This corroborates Vadil's (2012) study, which found that educators possess excellent life and career skills. The

highest ways were specifically to treat people as one would like to be treated, to behave oneself in a respectable and professional manner, to work productively and ethically, and to respond with open minds to various views and values.

This indicates that the student teachers have acquired the virtues and characteristics of respect for the profession by their adherence to moral standards and respect for other people's perspectives through their open-mindedness. Castro (2009) emphasized the result on cultural diversity that there is a gradual movement toward more optimistic attitudes about teaching culturally diverse students. Gourneau (2006) underlined that good teacher must have a real attention to the diversity of their students.

The three lowest ways, despite still receiving excellent ratings, were on balancing tactical and strategic goals and defining goals with both tangible and intangible success criteria. This indicates that the pre-service teachers lacked some of the abilities to discern where their present employment actually led them. This can be explained by the student teachers' immaturity in understanding their professional objectives.

Information, Media and Technology Skills

On information, media, and technological skills, the respondents' average score was 3.91. It denotes a sophisticated 21st century skill. This corroborates Vadil's (2012) study, which found that teachers are proficient in information, media, and technology. None of the components' items received particularly high ratings. The respondents scored most in comprehending the role of the economy in society, using technology as a tool for information inquiry, organization, evaluation, and communication. They also scored highest in getting information efficiently (time) and effectively (sources).

As indicated by the student teachers' proficiency with using computer applications for their development of instructional materials, exam papers, and bulletin board structure, this indicates that the pre-service teachers were considerably skilled in using technology for research and communication. The future teachers exhibit familiarity with using the internet for research. Since they are completely aware of their direct and indirect effects, the respondents were well aware of the economy's role in society, affected by their personal economic circumstances.

The lowest means, though still highly rated, were understanding and addressing global issues, using entrepreneurial skills to improve workplace productivity, and using digital technologies (computers, PDAS, media players, GPS, etc.), communication/networking tools, and social networks appropriately to access, manage, integrate, evaluate, and create information to successfully function in a knowledge economy. For pre-service instructors, using cutting-edge technology is still new.

The study supports Rutherford's (2011) study that most digital natives are not naturally inclined to integrate technology and embrace 21st century teaching, which could also be supported by the fact that these technologies are not provided by the school. There is a need for the exposure of pre-service teachers to global issues. Because the pre-service teachers are focused on the typical routines of the classroom, they are not given the chance to develop entrepreneurial skills.

Learning and Innovation Skill

The respondents had a mean of 4.11 which means a high level of 21st century skill on learning and innovation. This supports Vadil's study (2012) which concludes that teachers are very good along learning and innovation skills. The highest means were on skills such as developing, implementing and communicating new ideas to others effectively; being open and responsive to new and diverse perspectives; incorporating group input and feedback into the work; viewing failure as an opportunity to learn; understanding that creativity and innovation is a long term, cyclical process of small successes and frequent mistakes; on creating ideas to make a tangible and useful contribution to the field in which the innovation will occur; and adopting easily to changes.

The pre-service teachers' creative thinking and adaptability to changes they would face were the abilities that were emphasized. The pre-service teachers' ease of change adaptation is one way that instructors' flexibility is demonstrated.

The lowest means, despite being highly regarded, were concentrated on analyzing and assessing significant alternative viewpoints, synthesizing and connecting data and arguments, and finding both conventional and novel solutions to a variety of unfamiliar situations. The lowest means concentrated on the pre-service teachers' capacity for higher-order thinking skills like analysis, synthesis, and creation.

Thinking creatively while working technologically was advanced by Chandra and Calmers (2008) to be taught to pre-service teachers for them to develop and hone skills in investigating ideas, to produce and evaluate, and to create their own technologically product.

Effective Communication Skills

The respondents scored highly in terms of effective communication abilities, with a mean of 3.94. Only the indicator related to exercising citizenship rights and obligations is given a very good rating. This indicates that the pre-service teachers have ingrained the characteristics that demonstrate their dedication to being Filipino citizens.

Other highly effective skills include using communication for a variety of purposes, using multiple media and technologies, exercising flexibility and being willing to be helpful in making necessary compromises to achieve a common goal, taking responsibility for collaborative work and appreciating the unique contributions made by each team member, and using interpersonal and group skills.

This illustrates how the pre-service teachers were adept at utilizing their interpersonal intelligence to achieve goals through cooperation and responsibility sharing. Collaboration chances with classmates can have a long-lasting effect on each student's learning, according to Saner, et al. (1994) and Webb (1993). Communication, particularly listening, is used to enhance their knowledge and attitudes.

5. SUMMARY AND CONCLUSION

In order to develop an improvement program for student teaching, the study evaluated the pre-service teachers of the UEP system's level of 21st century competencies. It specifically determined the profile of pre-service teachers at the University of Eastern Philippines' three campuses in terms of sex, monthly income, the type of high school attended, degree program, and academic performance; as well as the profile of teachers and supervising teachers in cooperating settings in terms of sex, educational attainment, academic rank, years of experience as cooperating teachers, and attendance at training seminars for teachers.

The survey also evaluated the respondents' level of 21st century abilities as perceived by cooperating teachers and pre-service teachers. These skills included learning and creativity, effective

communication, life and career skills, and information, media, and technology skills. The study determined the differences in the levels of 21st-century skills of the pre-service teachers as perceived by the pre-service teachers themselves, the cooperating teachers, and the supervising teachers. It also determined the relationship between the profile of the pre-service teachers and their level of 21st-century skills.

Senior teacher education students from the three campuses who participated in the survey during the academic year 2013–2014, as well as their cooperating and supervising instructors, were the respondents. The study used a modified 21st century skills assessment and a descriptive-correlational approach. The data were processed using frequency counts, means, percentages, multiple regression analysis, and analysis of variance.

The majority of pre-service teachers are women who graduated from public high schools, came from families with annual incomes of \$40,000 or less, held a BEED degree, and shown strong academic achievement.

The majority of the collaborating teachers are female; they hold Teacher III posts, are BS/AB graduates with MA units, have one to five years of cooperative teaching experience, and have not participated in training seminars for teachers.

BS/AB with MA units, Instructor II positions, 1–5 years of experience as supervising instructors, and no attendance at training teacher seminars characterize the majority of the supervising teachers who are female.

The majority of pre-service educators had "High" levels of 21st century abilities in terms of information, media, and technological proficiency, effective communication, and "very high" levels in terms of personal and professional development.

The pre-service teachers' sex, high school type, and academic achievement were determined to be highly correlated with how well-rounded their 21st century skills are. The degree of 21st century abilities possessed by the pre-service teachers was highly correlated with the profile of the cooperating/supervising teachers, specifically sex and experience as supervising instructors.

6. RECOMMENDATION

Based on the findings of the study, the following recommendations were arrived at:

1. The school administrators should encourage students to take up related vocational courses such as the BSIE, BSHE, BEED-HE and BTED considering that these are in demand in the world market. This also pushes the recommendation of A. B. Sygoco (2006) and N. Ricafort (2010).
2. The UEP system should design a set of curriculum components for 21 century learning outcomes to produce graduates who possess these 21st century skills.
3. Professional development like skills on mentoring/coaching pre-service teachers should be conducted regularly to update and adopt new trends and best practices in handling teacher apprentices.
4. Workshops for pre-service teachers, cooperating teachers and supervising teachers should be designed and conducted by the UEP system to equip them with operational or manipulative skills in using advanced technology with dexterity.
5. Joint orientation programs/seminars for cooperating/supervising teachers to fine tune student teaching learning environment, learning to teach standards based on 21st century skills should be included in the program of activities in the UEP laboratory and cooperating schools.

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