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Employability of Teacher Education Graduates of an Asian Public University

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Abstract - The employability of graduates from an institution is very important to note. It is through education and proper training that one may get a decent job after graduation. This study intends to show the employability of teacher education graduates in an Asian public university. The methodological approach was both quantitative and qualitative. Interviews were semi-structured and used a standard set of questions; however graduates were encouraged and motivated to share stories and explain how and why they had arrived at their conclusions and to describe any relevant experiences in the workplace. The findings reveal that the graduates who specialized in English, Mathematics and Sciences are academically talented and motivated group with considerable aspirations to be the teaching model. The study also highlights that Science majors are the most employable graduates while Mathematics majors able to handle other learning areas such as Computer Education and Economics. Many Mathematics major graduates can diversify further through postgraduate studies, either into research or advanced courses in Mathematics in order to be promoted an also for professional and academic growth. It is therefore concluded that there are three top priorities in the workplace for graduates, these includes: challenging/interesting work, a high salary and professional growth.

Keywords - teacher education graduates, Asian public university, employability, workplace

INTRODUCTION

The study focused on the employability of the English, Mathematics and Sciences graduates of the College of Teacher Education in Cebu Normal University. It is through education and proper training that one may get a job after graduation. Education is formal schooling before the first job. Many educators will attest to the effectiveness of learning if the students are able to apply them in everyday living. There is a very strong competition of having a job after graduation.

In Hills, Robertson, Walker, Adey, and Nixon (2003) as cited in de Guzman and de Castro (2008), a role of the higher education sector is to supply suitably skilled graduates to the workplace.

In most cases, students will enroll in any higher institution to gain and acquire new knowledge and skills that is applicable in the workplace. The responsibility of University/College in training students is not limited to imparting academic skills.

The development of employability skills in teacher education institutions requires members of the academe to have informed knowledge of current industry practice and an awareness of how different workplaces are structured and function. Teaching skills, as well as knowledge, means that faculty members are required to move beyond traditional lecturing and use a range of teaching methods (Commonwealth of Australia, 2007). As well as teaching 'about' particular skills, professors can model those skills and develop them through the teaching methodologies they use. Certain courses, such as science or information technology, have always had a strong practical component, in both teaching and assessment, yet increasingly universities are encouraging the use of different teaching methodologies to develop graduate attributes in their students (Commonwealth of Australia, 2007).

Employability in teaching depends on many factors such as educational qualification, academic performance, communication skills, technology skills and demonstration skills. Warraich (2008) stressed that graduates will have to develop market oriented skills

to meet the challenging as well as changing needs of the employers. Graduates have to improve their communication skills, attitude in problem solving and decision making, information literacy, technology skills, presentation skills and proficiency in English language.

The employability of graduates has become an aim that governments around the world have, to varying extents, imposed on national higher education systems (Yorke, 2006). This interest in employability reflects an acceptance of human capital theory (Becker, 1975). Under human capital theory, the task of government is to foster conditions that encourage growth in the stock of human capital, since this is seen as vital to the performance of knowledge based economies in a globalized society. It is, however, given little attention in other societies, many of which prefer to consider the 'work-readiness' of graduates as a means of guaranteeing economic competitiveness in an increasingly global market-place (Little, 2003).

The main objective of the study is to determine the percentage of employment of the CNU graduates and the factors that influence the employability of the teacher education graduates.

FRAMEWORK

Education and training providers have a statutory duty to evaluate their own activities and participate in external evaluations. Evaluation is used to collect data in support of education policy decisions and as a background for information- and performance-based steering. According to Levin (1989), skills are earned through education. The major function of schools is to prepare workers to meet the labor demand and skills requirement. Education therefore should design curricula that prepare workers for job compatibility. The implication of this theory is that educational institutions should design curricula for "Social efficiency" by preparing workers for the existing economic stability.

Smith et al (2000) mentioned that employability has been used as a performance indicator for higher education institutions. According to Hills, Robertson, Walker, Adey, and Nixon (2003) in de Guzman (2008) a role of the higher education sector is to supply suitably skilled graduates to the workplace. The growing awareness of employability

in higher education is viable in the context of the development of a knowledge based economy, a more diverse student intake, and changes in the nature of graduate employment (Harvey, Locke & Morey, 2002; Kimani, 2005; Shah et al, 2004) as cited in de Guzman (2008).

For employers, a general 'graduates' (HEQC, 1997) appears to be deemed to be sufficient, which should be understood to include the possession of general dispositions, qualities and skills. (Purcell and Pitcher, 1996, noted that for many years over 40% of advertisements for 'graduate jobs' had been more or less indifferent to applicants' subject of study.

Students, therefore according to Yorke (2006) will develop their employability in ways that reflect their particular circumstances. It might be hoped that they would become 'capable' in the sense outlined by Stephenson (1998): Capable people have confidence in their ability to: 1. *take effective and appropriate action; 2. explain what they are seeking to achieve; 3. live and work effectively with others, and 4. continue to learn from their experiences, both as individuals and in association with others, in a diverse and changing society. [. . .]*

The Higher Education Institutions (HEIs) in the Philippines (public and private institutions) are aware that today's employers are looking for more than just a degree qualification. Academic qualifications alone no longer guarantee that an individual will get a job. School/ colleges and universities should be a place where students grow intellectually (cognitive competence), morally (character education), socially (interpersonal skills), and personally (self-reliant, self-confident, resilient and a lifelong learner). According to the DOLE in the Philippines, the unemployment, which had averaged about 4.5 percent during the 1970s, increased drastically following the economic crises of the early 1980s, peaking in early 1989 at 11.4 percent.

In matching theory, labor market 'failure' on the part of individual graduates – unemployment or underutilization of graduate-level skills in employment -- reflects mismatches between graduates and employers which may come about for a number of reasons (Mason, 2006). For example, Coles and Smith (1998) emphasize that in a random matching model mismatches between job-seekers and employers may arise because of imperfect information, resulting in time and search costs for prospective partners to obtain information about better

matches.

According to Mason (2006), in a recent investigation of labor market mismatches in the Netherlands, Allen and van der Velden (2001) find that 'education-job mismatches' (individuals holding jobs for which their formal qualifications are higher or lower than required) do not correspond closely with 'skill-job mismatches' (individuals holding jobs for which their skills are above or below those required).

MATERIALS AND METHODS

The study conducted includes the graduates of the College of Teacher Education in the Bachelor of Secondary Education from Academic Year 2008-2010.

The methodological approach was both quantitative and qualitative. Interviews were semi-structured and used a standard set of questions; however graduates were encouraged to share stories and explain how and why they had arrived at their conclusions and to describe any relevant experiences. Most interviews were face-to-face and most were one-on-one. Some of this was through face book especially if they were not in Cebu City.

For the graduate questionnaire, the most used standard breaks include year of graduation, field of specialization, degree program attended, economic sector in which employed, employment status and special skills that makes them competitive in the workplace. The generated tables formed the basis for data analysis and interpretations.

RESULTS AND DISCUSSION

Table 1. Number of CNU graduates employed as teachers in the public schools

	2008			2009			2010		
Degree Program & Major	**No. of Graduates**	**Employed (Public School System)**	**%**	**No. of Graduates**	**Employed (Public School System)**	**%**	**No. of Graduates**	**Employed (Public School System)**	**%**
BSED Science	52	41	78.85%	BSED Physical Science 18	9	50%	BSED Physical Science 13	4	30.77%
				BSED Biological Sciences 26	15	57.69%	BSED Biological Sciences 19	8	42.1%
BSED Mathematics	62	48	77.42%	60	34	56.67%	52	21	40.38%
BSED English	72	53	73.61%	72	37	51.39%	84	33	39.29%
Other Field of Specialization (Social Sciences, MAPEH, Filipino)	48	10	20.83%	54	14	25.93%	48	8	16.67%

To gather in-depth information on employability of the CNU-CTE graduates, e-groups was retrieved and the researcher communicated the respondents personally, via phone call or Face book. Structured interviews was conducted and the interviews sought respondents' views on definitions of employability; learning, teaching and assessment of employment-related skills and knowledge; employer involvement with programs of study; student work experience; and other employability initiatives. The findings revealed that in 2008, Science majors have the greatest employability rate in the public schools. Out of 52 graduates 41 or 78.85% of them were employed in the public high schools. With the Science majors, all respondents acknowledged that they were competitive in the workplace especially in terms of teaching strategies, creating, producing and using instructional materials which are innovative in nature.

Table 1 also shows that Mathematics majors also have high employability rate which is 77.42%. Aside from teaching Mathematics, some of them were also assigned as Computer Education teacher and Economics. BSED Math graduates possess knowledge and skills that will enable them to make a contribution beyond other subject areas particularly where a combination of analytic, numerical and communication skills are valued (Hibberd et. al, 2006). Additionally many Mathematics major graduates can diversify further through postgraduate studies, either into research in universities or advanced courses towards specialist employment opportunities within many industrial and commercial sectors as mention by Hibbard in 2006. In 2004, 24% of all Mathematics graduates went into further study and another 11% combined both employment with study (Hibberd et. al, 2006).

Furthermore, Table 1 reveals that BSED English majors are also employable. There are good in communication skills and are trainable. 73.61% of them were in the public schools. According to Brennan et al. (2003) the employability of English graduates is rather poor light; at six months after graduation over half of English graduates were in full-time paid employment but this was below the proportions for all English major graduates. Based on interviews with the graduates employers can easily distinguish between graduates in English and graduates in other Arts and Social Science subjects. One recent study

of six large graduate employers reported that employers felt that Arts and Humanities graduates could lack certain essential skills (teamwork and project work with presentation elements) compared to English majors graduates (Brennan, 2003)..

Conversely, other field of specialization such as Filipino, Music, Arts, Physical Education and Health and Social Sciences have low employment rate as teacher in both public and private school. Most of them were employed as call center agents. Out of the 48 graduates in 2008, only 10 or 20.83% were teachers in the public schools.

Table 1 also discloses that in 2009, that the highest rates of employment as teachers in the public schools were the Biological Science majors. It was followed by the Mathematics majors then Physical Science majors. This implies that teachers specializing in English, Mathematics and Science have high hope to be employed as teachers than those other field of specialization. English proficiency, as well as the degree of this knowledge plays a significant role on employment characteristics.

As shown in Table 1, the same trends were observed from 2008-2010. BSED Science majors were mostly employed in the public schools. This entails that they are academically talented and motivated group with considerable aspirations. As cited in Verhaest and Omey (2009), Wetch (1970) argues that education and skill possession produce two effects-------more pay and more productivity. He is in effect saying that education creates work effects which enable workers to more productivity in terms of speed and quality of work which in turn translates to more pay, because there is greater knowledge and proficiency in understanding specific tasks within the context of the work organization.

Mathematics and English are second and third, respectively. The education and training provided to teachers should not only focus on familiarizing them with various instructional models. But it should also put emphasis on deepening their understanding of the mathematical content, their interpretations of the mathematical content in the context of facilitating meaningful learning, their knowledge of learners' conceptions and learning difficulties (Shulman, 1986).

There is strong evidence supporting the need for teachers to have rich mathematical content knowledge and deep understanding

(Brown & Borko, 1992, p. 209). Many studies prove teachers trait are related to student achievements. Montalvo et al. (2007) stressed that students will put forth greater effort and demonstrate a higher degree of persistence if they like their teachers. In the study of Wayne and Youngs (2003), they found out that teacher quality in their analysis of studies, examined the characteristics of effective teachers and their link to student effectiveness.

It was found out that basic skill, attitude and behaviors were very important to be employed, while competence was seriously considered in the supplementary education industry. Still, other filed of specialization were the least number of teachers employed in the public schools. It is revealed in the study that most of them were employed in the company and other establishment. Chou (2011) stressed that the employable skills required for the supplementary education industry were mainly represented by work enthusiasm, responsiveness, proactive approach, optimism, and communicative competence, interest in teaching, caring, patience and a good expressive ability. As a mathematics community there is an increasing call to enhance, to better articulate and evidence the skills that are, or could be developed in the study of mathematics-based program (Golden, 2008).

Table 2. Number of CNU graduates employed as teachers in the private schools

	2008			2009			2010		
Degree Program & Major	**No. of Graduates**	**Employed (Private School)**	**%**	**No. of Graduates**	**Employed (Private School)**	**%**	**No. of Graduates**	**Employed (Private School)**	**%**
BSED Science	52	8	15.38%	BSED Physical Science 18	6	33.33%	BSED Physical Science 13	6	46.15%
				BSED Biological Sciences 26	8	30.76%	BSED Biological Sciences 19	8	42.1%
BSED Mathematics	62	10	16.13%	60	17	28.33%	52	21	40.38%
BSED English	72	11	15.28%	72	22	30.56%	84	39	46.43%
Other Field of Specialization (Social Sciences, MAPEH, Filipino)	48	7	14.58%	54	11	20.37%	48	9	18.75%

Table 2 reveals the percentage of employment of CNU graduates employed in the private schools. In the year 2008, out of 62 BSED Mathematics graduates 10 or 16.13% of them were employed in the private schools. A degree in mathematics does not train for a specific job rather it gives a range of skills which enable teachers to enter any of a wide range of careers. It is therefore a versatile qualification. A number of studies found that teachers' years of experience positively correlate with students' achievement. In the study of Betts, Zau and Rice (2003 as cited by Ogbonnaya and Osiki (2007) reported that teachers' experience significantly correlates with students' achievement in mathematics. It is followed by Science majors and then English majors. Written and oral communication skills and critical thinking are just some of the strengths mentioned by English graduates themselves which will qualify them to be employed in private sectors.

Verhaest and Omey as cited by Chou (2011) believed that excessive investment in education could influence the accumulation of working experience [13]. From the perspective of the human capital theory, the holder of a college degree is believed to have greater resources and higher productivity than general and vocational high school graduates in labor force utilization and work adjustment (Chou, 2011).

As shown in Table 2, other field of specialization (Social Sciences, MAPEH, Filipino) had the lowest number of teachers employed in the private schools. The job a graduate might hold six months after completing his or her studies is very often one that the graduate would not consider as permanent, or one that is a 'real' first destination (Brennan, 2003). The main sectors for these graduates are business, consultancy and research, wholesale and retail trade, manufacturing, community, social and personal services.

Most of the BSED Biological and Physical Science majors were employed in the private schools in 2009. Of the 44 graduates, 14 of them or 31.82% were teachers in the private schools. Through face-to-face interview, the respondents confirmed that professional and personal development was given by the school administrators to them. The trend is different, second highest percentage of employment as teachers in the private school in 2009 was the English majors. The program for English majors is designed to lay a foundation for careers in writing, teaching, scholarship, and research, as well as for many

other types of position in the business and professional world where skills in communication, creative, critical, or analytical writing, public relations, editorial skills, advertising, or the like are required. On the other hand, 28.33% of the BSED Math graduates were also employed in the private schools.

According to those who are employed in call centers and other establishments, searching for employment starts way before graduation for most of the graduates. The period of seeking employment sometimes lasted for 3-6 months.

In 2010, most of the English majors were employed in the private schools. Because English majors have learned how to write, analyze material, and communicate effectively, and are good problem solvers, they work in private schools and are highly appreciated. A large-scale audit presents summary data at national level which do not account for provincial and local variations in teacher employment policy and planning. Science majors are employable followed by the Mathematics majors. Hill, Rowan and Ball (2005) found that teachers' specialized mathematical knowledge was significantly related to student achievement. Still the least number of graduates employed is Other Field of Specialization (Social Sciences, MAPEH, and Filipino) which is only 18.75%. Teachers in the private schools after the employment contract will transfer to public schools for security purposes.

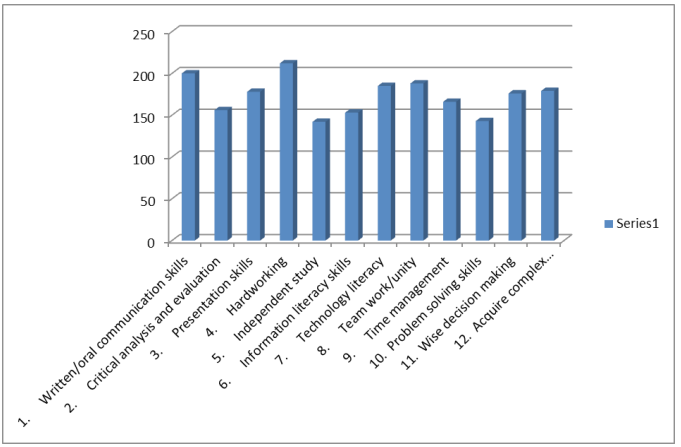

Table 3: Abilities, competencies and skills acquired by the CNU graduates

The use of professional knowledge and skills acquired during studies was a very important factor in job satisfaction. Table 3 presents the abilities, competencies and skills acquired by the CNU graduates and was developed in the workplace. Most of the graduates are hardworking and trainable. Mathematics majors confirmed that their superior usually commented on the hard work and perseverance they have showed in the workplace. Most of the graduates are excellent in written and oral communication skills.

CONCLUSIONS

In conclusion, the study presented the percentage of employment of Cebu Normal University graduates who are employed as teachers in both public and private schools. The study showed that the Bachelor of Secondary Education with specialization in Science, Mathematics and English were mostly employed as teachers. They acquired enough abilities, competencies and skills needed to be competitive in the workplace. The qualifications should provide teachers with the necessary amount of subject content and skills to become effective in their classrooms. Furthermore, the findings reveal that the Cebu Normal University graduates who specialized in English, Mathematics and Sciences are academically talented and motivated group with considerable aspirations. The study also discloses that these graduates are employed as teachers in both public and private institution. Many of them who are employed in the private schools want to transfer to the public schools for security of tenure reasons. The study also highlights that Science majors are the most employed graduates while Mathematics majors able to handle other learning areas such as Computer Education and Economics. As revealed in the study there three top priorities in the workplace for graduates, these includes: challenging/interesting work, a high salary and professional growth.

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