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Competencies in the Workplace of the Bachelor of Science in Fisheries Graduates of the Western Philippines University

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Abstract - This study was conducted to assess the Bachelor of Science in Fisheries' graduates competencies and how they fare in their job as assessed by the employers. The study employed the descriptive survey and correlational methods of inquiry using a prepared questionnaire that involved 46 graduates. The data gathered were statistically treated and analyzed with the use of frequency, percentages, mean, ranking, weighted mean, Chi-square and Cramer's coefficient. Results revealed that most of the graduates were employed in the government agencies. The graduates' competencies were indicative that they can work with others. Employers confirmed the graduates are capable and very prepared for work. A Significant association existed between the graduates' nature and status of employment in terms of present employment status, place of work and employing skills and their professional preparation as to reasons for taking the course. The employers' assessment of the graduates in terms of their job performance, quality of graduates being employed, employment skills and other skills were significantly associated to the graduates reasons

for taking the course. The study concluded that graduates nature and status of employment are the results of their professional preparation.

Keywords - fisheries course, competencies, employers' assessment, nature of employment, workplace, job placement and skills

INTRODUCTION

Fisheries play an important role in the global provision of food directly accounting for at least 15 percent of the animal protein consume by humans and indirectly supporting food production by aquaculture and livestock industries (Myers, et al., 2010). According to Palma (2009), it provides about 50 percent of animal protein in the Philippines, or as high as 80 percent for coastal areas.

Based on the economic role of fisheries in the national economy, the Fisheries and Aquaculture Organization (FAO) states that, the Philippines ranked eleventh among the top fish producing countries in the world in 2003, with production of 2.63 million tonnes of fish, crustaceans, mollusks and aquatic plants (including seaweed). Such potential of fisheries resources can be attributed to the Philippines as an archipelago that is composed of more than 7,100 islands with a total coastline length of about 18,000 kilometers. The total land area of water ratio is 1:7 with a land area of approximately 300,000 square kilometers and total water of 2.2 million square kilometers. The population currently stands at 96 million with more than 60 per cent living in coastal areas.

Being an archipelago, the country is endowed with a vast expanse of coastal and inland water resources which is approximately seven times larger than its land resources. Palawan province is one among the provinces that contribute to the total national coastal and estuarine resources. It has an almost 2,000 kilometer of irregular coastline which is dotted with 1,780 islands and islets, rocky coves and sandy beaches. It is also home to diverse marine organisms from top predators to small reef fishes and numerous species of coral and marine algae (Gonzales, et al., 2008).

With the nature of the Philippines as an archipelagic country and Palawan as its largest island province, majority of its population is residing in coastal areas with fisheries as the major source of livelihood. Over the years, there is an increasing demand for fishery products here and abroad. Together with this demand is the need to produce people that would operate fishery industries not only in the province of Palawan but also in Region IV, and in the attainment of fish sufficiency for domestic consumption and for export. The government itself campaigns to the academic institutions for support through curricular offerings. One of the state universities that answer to this call is the Western Philippines University (WPU) which has the main campus in Aborlan, Palawan.

Galuba (2010) mentioned in his lecture that science and technology thrusts of National Higher Education Research Agenda (NHERA-2:2009-2018), these consist of: agriculture, forestry and natural resources, health and medical science, biotechnology, information and communication technology, microelectronics, earth and marine sciences, fisheries and agriculture, environment, natural disaster mitigation, energy, materials science and engineering and manufacturing and process engineering.

Today's students are striving to have a university education. They believe that higher education is an investment and that competencies needed for employment are usually taught in tertiary level. It is a long-life learning experience that will broaden their professional career in the global society. The performance of the school is valued by the society for it assures the graduates that they produce and the services to be rendered are of consistent quality.

The Commission on Higher Education (CHED) has issued Memorandum Order (CMO) No. 43 Series 2006 regarding Policies and Standards for Bachelor of Science in Fisheries (BSFi) Program. This is in accordance with the pertinent provisions of Republic Act (RA) No. 7722 otherwise known as the "Higher Education Act of 1994," and by virtue of Resolution No. 603 of the Commission en banc dated September 11, 2006 and for the purpose of rationalizing the undergraduate fisheries education in the country with the end view of keeping at pace with the demands of global competitiveness.

The new BSFi curriculum provides knowledge to students as required in the Fisheries Code for proper fisheries and environmental management and sustainable/responsible fisheries, and in the recently approved duties and competencies of fisheries professionals. The BSFi program has no majors and graduates are intended to be knowledgeable in all aspects of fisheries. The paradigm shift from having majors to non-majors is a call to provide competent fisheries professionals who can contribute better to sustainable and responsible fisheries and total approach to fresh water and marine coastal management, and would be flexible in tackling job opportunities in both private and government sectors. The program is designed to: educate students in the field of fisheries who can contribute to the country's need for sustainable/ responsible fisheries and proper concepts of fisheries management, environmental management and multi-sectoral approach to coastal management; make students knowledgeable in statistical tools, computer use, social equity, extension service, economics, and proper handling of fish to reduce losses; and help students acquire knowledge and competencies in all aspects of fisheries such as aquaculture, capture fisheries, post-harvest fisheries, aquatic resource and aquatic ecology; and be capable to do research.

The Fisheries Program in the Western Philippines University started in June 1983, three years after the signing of World Bank Loan Agreement No. 1786 PH under International Bank for Reconstruction and Development (IBRD). This project, Palawan Regional Institute of Fisheries Technology (PRIFT) started with 125 Diploma in Fisheries Technology (DFT) students. Ten Universities of the Philippines BS Fisheries graduates pioneered the implementation of this project (CFMT Bulletin of Information,2008).

Bachelor of Science in Fisheries is under the Fisheries and Allied Sciences branch of the College of Fisheries and Maritime Technology (CFMT). In 2009, it was identified as the National University of Fisheries in Region IV-B under the National Agriculture and Fisheries Education System of CHED. In 2000-2006, it was awarded the Center of Excellence (COE) for Fisheries in Region IV by CHED. The BS in Fisheries program has been accredited to Level III by the Accrediting Agency of Chartered Colleges and Universities in the Philippines, Inc, (AACCUP)(Dyke and Campbell, 2010). Since the offering of the course

in 1983 it had graduated 105 individuals. Some of them were employed. However, no assessment was done in terms of how they fare with their work and yet, the institution has continued serving the people of the province in developing their knowledge and skills in fishing and fishery management, and has built its capability as the center of viable and environment-friendly fishery and aquatic technologies.

Instruction, research, extension and production works continued to be the University's central activity. For several long years, the Western Philippines University is the only institution that offers Bachelor of Science in Fisheries (BSF) Program in Palawan particularly at WPU-Puerto Princesa Campus. The Campus revised goals and objectives enable it to be more relevant and responsive to the present demands of the society and communities. Despite of this, no assessment had been done to find out the status of its graduates in terms of employability and competencies. It was for these reasons that the researcher embarked for this study.

FRAMEWORK

There are many assumptions on how graduate students who graduated from a college degree acquire employment. For decades, career development theories were reviewed. Some of these theories have tenured while others are still evolving. It is through these theories that an individual fashioning an identity. This study will be based on the career anchor theory.

Visconti (2010) had written about life's goals, it is clear that not everyone has the same ambitions in work. Some are very content to have a quiet, uneventful job, while others thrive to constant change and excitement. He added that we are all different, and our motivators are an "internal barometer" of who we are and what we want. Everyone has dominant "anchor" and motivator, as it relates to work. This shows the individuality of a person. Motivation is something innate to himself. This includes his career.

He further cited Dr. Edgar Schein statements that an individual holds a variety of career interests. There are eight main career anchors which are as follows:

1. **Technical/Functional Competence**: This is described as

enjoying the use of core skills. It can be skills that don't have to be technical in nature. It can be a human resources worker or a secretary who enjoys using the skills needed for a position. Likewise, they are human resources who are motivated by learning new skills and expanding current knowledge base. This is an aspiration that focuses on the importance of knowledge and skill. To remain in this orientation, professionals will require constant updating and learning new knowledge and technology development.

2. **General Management Competence**: This views specialization as limiting. This is a liked primarily by a human resource who wants to manage or supervise people. One who enjoys motivating, training and directing the work of others. One who enjoys authority and responsibility, and when someone strips of control it is "demotivator;" who thrives in three areas of competence- analytical, interpersonal/ intergroup, and emotional. This is an aspiration to exist in the increasingly political, environment, analytical and financial skills, and interpersonal competence to function in teams and negotiations. He/ She will be responsible for major policy decisions.

3. **Autonomy/Independence**: This explains that need and want control over work and want to be recognized for achievements. This is good for human resources who can't tolerate other people's rules or procedures and that they need to do things in their own way: It can be seen that independent consulting and contract work would be of good fit for these people who want to be left alone to do their work; just give them instructions on what you want, when you want it and let them "go to it!" This aspiration focuses on the self-reliance that can reduce their dependency on any particular organization or job. Employees who have already built autonomous careers will be well adapted to the future.

4. **Security/Stability**: This refers to one's need to be safe, secure, and motivated by calmness and consistency of work. This is good for human resources who don't like to take chances and are not risk-takers. Stable companies are their best bets. They strive for predictability, safety, structure, and the knowledge that the task has been completed properly. Somehow their unused talents may be channeled outside the work. This is an aspiration that focuses on professionals who seek stability and continuity as a primary factor of their lives. They avoid

risk and wanting to remain with the same employer or place.

5. **Entrepreneurial Creativity**: Other persons like the challenge of starting new projects or businesses. Those who have lots of interests and energy, and often have multiple projects going at once. This is different from autonomy in what the emphasis is on creating new business: It can refer often to pursuing dreams at early age.This is an aspiration that focuses on professionals who fond inventing things, be creative and most of all, to run their own businesses.

6. **Service/Dedication to a Cause**: An individual is motivated by core values rather than the work itself: It needs strong desire to make the world a better place. This is an aspiration to maintain an adequate income and also something meaningful in a larger context.

7. **Pure Challenge**: There are persons whose strongest desire is overcoming obstacle; conquering, problem-solving; competition; winning; constant self-testing; single-minded individuals. This is an aspiration that is driven by constant challenge stimulation and difficult problems.

8. **Lifestyle Integration**: Some persons have a high need to balance work and the rest of life; enjoy work, but realize that works is just one of many parts of life that is important; subscribe to philosophy of "work to live", rather then "live to work."This is an aspiration to stabilize life pattern and career by setting into a given region and refusing to be moved by their company every few years.

With the above discussion, careers can be considered as an individual preference. It takes place at several levels. One can choose what he wants, what he wants to become and what he needs. It is a chosen pursuit that is called profession. It is about one's working life towards professional achievement. Further, the theories cited give a picture that one may need a particular career depending on his inclination. Along this line, the researcher theorizes that graduates of WPU fisheries course are heeding their professional career. It is also theorized that they apply their knowledge and skills acquired from WPU in the different employment agencies. These knowledge and skills serve as their competencies which enable them to get employment.

To summarize the theories cited, these are captured in the research paradigm.

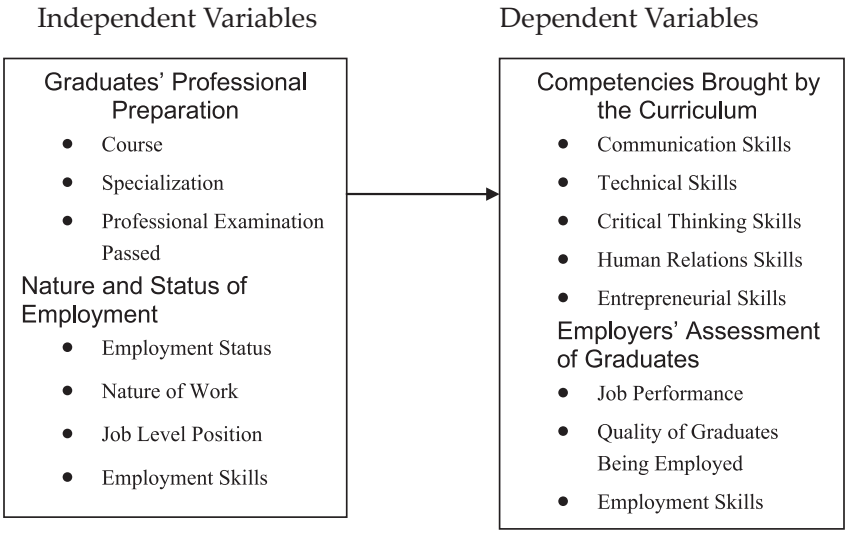

Figure 1. Research Paradigm

The paradigm shows the relationship between the independent and dependent variables. The independent variables are composed of the graduates' professional preparation as course, specialization and professional examination passed and the nature and status of employment as employment status, nature of work, job level position and employment skills, whereas the dependent variables are comprised of the graduates' competencies brought by the curriculum and their employers' assessment of their job performance, quality of graduates and employment skills. The data generated from the dependent variables will serve as feedback which can serve as basis to review the educational preparations of the graduates.

OBJECTIVES OF THE STUDY

This study assessed the employment quality of the Western Philippines University Fisheries graduates and evaluates their performance in their workplace.

MATERIALS AND METHODS

In this study, the descriptive and correlational methods of research were employed. These methods were used to generate the needed information regarding the graduates of the Bachelor of Science in Fisheries at the Western Philippines University-Puerto Princesa Campus. This was designed to use a self-completion questionnaire. In this inquiry the profile, competencies, employment status and job performance were dealt with.

Further, this study employed the descriptive correlational method of study to correlate the graduates' professional preparation to their nature and status of employment and job performance and to determine the relationship between the graduates' competencies and their nature and status of employment and job performance.

Respondents of the Study

The respondents of the study were the 105 Bachelor of Fisheries graduates of the WPU-PPC from school year 1997-1998 to 2009-2010.

Based from the population of 105 Bachelor of Science in Fisheries graduates since 1997 to 2010, the researcher opted to use 30 percent as quota. In terms of the number of graduates per school year, these were broken as follows: 10 graduates during the school year (SY) 1997-1998; 17 graduates in SY 1998-1999; four graduates in 1999-2000; ten in 2001-2002; six in 2002-2003; three in 2003-2004; five in 2004-2005; four in 2005-2006; five in 2006-2007; nine in 2007-2008; 12 in 2008-2009 and five in 2009-2010.

As targeted, 32 comprised the 30 percent of the total graduates. However, in the actual administration of the questionnaire, 46 or 43.80 percent of the total 105 graduates responded to the study. There were 26 employers who also cooperatively responded to this study. This number was larger than the one planned to be the respondents of this study.

Data Gathering Instruments

The researcher developed her own data gathering instruments

which were patterned after the Commission on Higher Education (CHED) tracer survey questionnaire and that of the University of Mauritius particularly on its employers' assessment questionnaire with permission from their Quality Assurance Officer.

There were two sets of questionnaire. One set of the questionnaire was intended to be answered by the graduates. This was composed of the following: 1) personal related profile, 2) graduates' professional preparations or background, 3) competencies brought by the curriculum, and 4) nature and status of employment. The other set of questionnaire which was answered by the employers. This covered the employers 'assessment of the graduates being employed and employment skills being sought by the employers to the graduates.

The researcher made questionnaire was pre-tested in WPU-Puerto Princesa Campus to a group of College of Fisheries and Maritime Technology (CFMT) students and faculty who graduated from other courses on January 18, 2011. This was done to find out if there were items that were difficult to understand. After this, corrections were incorporated and then finalized and administered. The researcher herself retrieved the questionnaires.

Statistical Treatment of Data

Data gathered were processed, analyzed and interpreted with the use of the following statistical tools:

1. Frequency and percentages were used to describe the graduates' profile.
2. Mean was applied to determine the centrality of some data in the profile.
3. Rank was employed to show the positional importance of the different indicators as used in the study.
4. Chi-square was used to determine the association or correlation between variables.
5. Cramer's coefficient was applied to find out the extent of correlation.

RESULTS AND DISCUSSION

The findings revealed that more BS Fisheries graduates were male, married and were born during the year 1975-1979. Seven of the respondents took and passed the career professional examination. Majority were employed and worked in the City on contractual basis as extension worker and as entrepreneur. Fourteen graduates held executive or supervisory positions. Twenty-two were employed in public-service oriented offices and six in business oriented organizations. The graduates' employing skills were technical capabilities related to specialization, computer literacy and command of both English and Filipino languages.

As to graduates' competency, majority of the graduates attested to the relevance of the curriculum. The graduates' competencies as to communication skills were: make descriptive and narrative reports ($\bar{x}R$= 2.97) and use acceptable terms and language in making reports($\bar{x}R$ = 2.97) and prepare basic communication ($\bar{x}R$ = 3.17). Their technical skills were: capability to prepare project feasibility studies ($\bar{x}R$ = 4.09), implement data gathering and profiling of fisheries and aquatic environment ($\bar{x}R$ = 4.97) and operate/use computer in the exercise of my work ($\bar{x}R$ = 5.00). Their critical thinking skills were: capabilities to evaluate/assess quality management program ($\bar{x}R$ = 4.09); assess hazards in fish and fishery products ($\bar{x}R$= 4.26) and prepare research proposals ($\bar{x}R$ = 4.8). Their human relations skills were: work harmoniously with colleagues and clientele ($\bar{x}R$=2.86); consider intellectual property rights ($\bar{x}R$ = 3.60); and consider one's feelings when suggesting or giving criticism ($\bar{x}R$ = 3.74). Their entrepreneurial skills were: determine output target and costs ($\bar{x}R$ = 3.37); identify resource to be harnessed by applying fishery technology ($\bar{x}R$= 3.49) and formulate business plan ($\bar{x}R$ =3.63).

As to employers' assessment of the graduates, the graduates were found to have the capacity for cooperation and teamwork; ability to apply knowledge to the workplace; and adaptability/capacity to cope with change. They were assessed to be very good, have average level of theoretical and practical knowledge thus; employers were satisfied with the quality and preparedness of the graduates. They considered BS Fisheries graduates to have high level of prospects for employment.

The employment skills needed were: adequacy of knowledge in appropriate field; time management; and capacity for cooperation and teamwork. Other skills were: human relations skills and quick response time.

Significant association existed between the graduates' professional preparation as to reasons for taking the course and the employers' assessment of their job performance and that of graduates' professional preparation as to reasons for taking licensure examination and the employers' assessment of their other skills needed for employment which rejected the null hypothesis at 0.05 level of significance.

As to correlation between the graduates' competencies and the nature and status of employment, graduates' competencies as to communication skills significantly correlated to their nature and status of their employment in terms of affirmation if employed and reasons for changing job.

In terms of correlation between the graduates' competencies and the employers' assessment of graduates' job performance and skills, the graduates' competencies as to communication skills and technical skills were significantly associated to the employers' assessment of their theoretical and practical knowledge.

CONCLUSIONS

The following conclusions are drawn based from the findings:

More graduates are married, male and in middle age. The respondents of the study are BS Fisheries graduates who graduated a year or two. They also have taken and passed professional and government examinations. Majority of the graduates are employed on contractual basis as entrepreneur and community worker but there are some who hold executive or managerial position. They obtain employment that is related to their degree in a particular organization or agency that range from business related work to supervisory or executive position. They are employed in the government agencies because of their technical skills, being computer literate and good command of English and Filipino languages.

The curriculum of the BS Fisheries course is affirmed to be relevant by the majority of the graduates. The graduates' competencies as to communications skills are indicative of their capability to make reports and communication that are needed in their employment. The curriculum of the BS Fisheries prepares the graduates to acquire skills in project feasibility studies preparation, profiling of fishery resource situation and operate computer. The graduates of BS Fisheries are capable to do quality management assessment hazards in fish and fishery products assessment and do research proposals.

The BS Fisheries graduates' competencies as to human relations skills enable them to work with others, consider intellectual property rights and considerate to the feelings of others particularly in giving suggestions that will not offend them. The graduates have entrepreneurial skills that can make them engage into entrepreneurial related activities. The graduates according to their employers can perform very well in the workplace. They are observed to work with others, apply the knowledge learned and have the capability to cope with change or innovations.

Employers are satisfied with the quality of the graduates they employed. They find them very prepared for the work, average in their theoretical and practical knowledge and considered to have high level of prospect for employment. They prefer to hire graduates with adequate knowledge in their area of specialization, conscious of time or capable of managing time and can work with others. Other than knowledge acquired, the employers like the graduates who have good human relations and who can work under pressure.

The professional preparation of the graduates in terms of the reasons for taking BS Fisheries is a determinant of their job performance; quality of graduates being employed, employment skills and other skills needed.

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