

TRACER STUDY OF BACHELOR OF SCIENCE IN FISHERIES GRADUATES OF PARTIDO STATE UNIVERSITY (PSU) SAGÑAY CAMPUS

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ABSTRACT

This study was carried out to determine the employability of the Bachelor of Science of Fisheries graduates of Partido State University Sagñay Campus from 2015-2017. It also assessed the graduates' evaluation of the BS Fisheries program. A modified Graduate Tracer Study (GTS) survey questionnaire was used to gather data analyzed using frequency counts, percentage, and ranking. Out of the 66 graduates, 29 (43.94%) participated in the study. Results revealed that a considerable number of surveyed respondents are practitioners in the field of fisheries mostly as contractual employees in government agencies either as professional, technical or supervisory employees. However, performance in the board exam is low. Their monthly incomes are ranging from Php10,000 to Php14,999.00. Despite low economic returns, they choose to stay in their first job for an average of 3 to less than 4 years. It commonly takes them 1 to 6 months to land a job found through walk-in application, recommendations and information from friends. Generally, they enjoy satisfaction with their work. Unemployed graduates cited family concerns and advanced studies as reasons for unemployment. Graduates expressed high satisfaction with the services, learning environment/climate provided by the campus, and moderate satisfaction for facilities. Perceptions on adequacy and relevance of training were high. Similarly, the graduates generally believed that the campus had been instrumental in developing their knowledge, skills and attitudes, responsive to the needs of the industry. This study recommends enhancement of the program, faculty, linkage, and facilities.

KEYWORDS- Tracer Study BSF Graduates.

1. INTRODUCTION

Republic Act 7722 declares that the State shall ensure the advancement of learning and education of high-level and middle-level professionals, among others, through its higher education institutions (HEIs). Recognizing higher education as a key driver of the economic growth of countries puts hope in state colleges and universities (SUCs) and private higher education institutions (PHEIs) to produce the manpower needed to propel the country into high, sustained and equitable development. This can be achieved if the universities respond well to changes in the labor market (Or beta et al., 2016)^[1].

One of the strategy goals of Philippine Higher Education is relevance and responsiveness. It means responding to the diverse needs of a dynamic society; ensuring labor market responsiveness of higher education; strengthening the research and extension functions of HEIs. One of the growing concerns of the Commission on Higher Education is for higher education to contribute more to the innovative capacities of economies to address alarming job mismatch in the work field, which contributes to unemployment and underemployment of the country.

The employability of graduates is now an emerging concern, as competition of students, both local and abroad. The employment situation remains particularly challenging for all kinds of professions with the rising number of college graduates. For example, the field of fisheries belongs to the 6th major occupation group along with agriculture and forestry with hard-to-fill vacancies in the Philippines according to the 2013-2014 data of the Philippine Statistics Authority (2016)^[2]. Hard-to-fill vacancies were defined as vacancies in establishments where there is difficulty in recruitment. As to the reasons for the recruitment difficulty, the same government report cited lack of skills and competencies as the top reason for recruitment difficulties along with few

applicants vying for the job, inadequate work experience, applicants' expectation for high salary, lack of professional license, location or work schedule, and competition with overseas jobs.

Ensuring the adequacy and relevance of the training being provided by the institution is imperative. While employers want higher education graduates to arrive on the labor market "work-ready", they are often reluctant to invest in developing transferable skills in their employees. Instead, employers expect higher education institution to ensure graduates have the required academic and professional skills upon completing their degrees.

Philippine Statistics Authority (PSA), 2018^[3] stated that the unemployment rate in January 2018 was estimated at 5.3 percent compared to the 6.6 percent unemployment rate in the same month of the previous year. In its January Labor Force survey, the PSA revealed that of the total unemployed, the age group 15 to 24 years comprised 43.2 percent, while the age group 25 to 34, 31.1 percent. Of this number, 21.9 percent were college graduates, and 13.7 percent were college undergraduates. Bicol area ranks eight among the regions that had the most unemployed individuals. Furthermore, data from January 2017 to January 2018 by the said agency reveal that the agriculture sector (skilled agricultural, forestry and fishery workers) comprises 26 percent of the employed persons.

Studies show that there are factors that influence employment of fresh graduates (Or beta et al., 2016; DOLE, 2014)^[1]. Among those barriers are: mismatch between graduate skills and those in demand among employers, oversupply of graduates in several fields and/or a shortage of employment opportunities in their field of specialization, entry-level position may pay low wages lower than what the graduates are expecting, lack of communication skills and competencies of an average college graduate, and simply being not aware of the job opportunities available. The descriptive-correlational study of Montañó and Salvador (2012)^[4] revealed that the graduates' nature and employment status are the results of the undergraduate preparation as confirmed by the employers.

One of the objectives of Partido State University (PSU) Sagñay Campus is to produce fisheries technologists, technicians, and entrepreneurs for growth and sustainable development in the service area. This is in response to the goal of the Bachelor of Science Fisheries program that calls for "competent fisheries professionals who can contribute better to sustainable and responsible fisheries and total approach to freshwater and marine coastal management, and would be flexible in tackling job opportunities in both private and government sectors" (CHED Memo 43 s. 2006).

To monitor the Commission of Higher Education (CHED) goal of monitoring the relevance of responsiveness of the program and to prepare a document requirement of the Accrediting Agency of Chartered Colleges and Universities in the Philippines Incorporated (AACUP), this study was undertaken. Thus, this is a form of feedback mechanism to improve the study programs and implement reforms. In a context of dynamic and complex labor markets, gathering intelligence on current and future skill needs can support better matching of training and jobs, which is of paramount importance to societies (Schomburg, 2016). Through this study, the researchers hope to assess the issues concerning employability and the relevance and quality of the fisheries program offered in Partido State University Sagñay Campus.

2. METHODOLOGY

2.1 Research Design

The descriptive design, specifically the normative survey was employed to generate the graduates' biographical data, their status of employment, level of job satisfaction, and curricular program evaluation.

2.2 Respondents. The respondents were the Bachelor of Science in Fisheries (BSFi) graduates of Partido State University Sagñay Campus from 2015 to 2017. The official roster of graduates including their personal information was generated from the Registrar's Office.

TABLE 1. Frequency and Percentage Distribution of Respondents by Year of Graduation

Year of Graduation	Number of Graduates	Number of Respondents	Percent (%)
2015	13	9	31.03
2016	28	12	41.38
2017	25	8	27.59
TOTAL	66	29	
Percent		43.94	100.00

As shown in Table 1, the total number of graduates in the BS Fisheries program from 2015 to 2017 was 66 but only 29 (43.94%) were successfully traced and returned the questionnaires to the researchers.

2.3 Data Gathering Instrument. The research utilized the instrument prescribed by the Commission on Higher Education (CHED) - Graduate Tracer Study Program. To meet the research objectives, inputs from the previous tracer study conducted by Candelaria et al. (2014) were included. The instrument consisted of a combination of 47 close-ended and open-ended questions covering the following components: A) General information, B) Educational background, C) Trainings/advanced studies attended after college, D) Employment data, E) Retrospective evaluation of the program, F) Adequacy and relevance of the program, and G) Perceptions regarding academic experience at Partido State University Sagñay Campus

2.4 Data Gathering Procedure. Tracing the graduates was conducted from August to November 2018. The researchers carried out the study through personal interview/visit, e-mail, telephone call, and social media like Facebook and Messenger. For graduates who have Internet access, online survey was encouraged. Additionally, reminder actions were continually done to ensure higher response rate.

2.5 Data Analysis. Data were statistically treated using frequencies, percentages, and means. Frequencies and percentages were performed to describe the demographic personal, educational background, and employment information of the respondents. Weighted means, percentages, Likert scales, and rankings were carried out to evaluate the fisheries curricular program in terms of: satisfaction with the services, learning environment/climate and facilities; adequacy of skills learned on communication, human relations, leadership, problem solving and research. Data were classified, tabulated, coded, and analyzed using the SPSS software.

To determine the level of satisfaction on adequacy and relevance, a scale from 1 to 5 with 1 as the lowest and 5 as the highest and corresponding adjective description and weight were indicated.

TABLE 2. Weight, scale range and descriptions on adequacy and relevance

Weight	Scale Range	Satisfaction	Adequacy	Relevance
1	1.00-1.79	Very low Satisfaction	Not Adequate	Not Relevant
2	1.80-2.59	Low Satisfaction	Somewhat Adequate	Somewhat Relevant
3	2.60-3.39	Moderate Satisfaction	Adequate	Relevant
4	3.40-4.19	High Satisfaction	Very Adequate	Very Relevant
5	4.20-5.00	Very High Satisfaction	Extremely Adequate	Extremely Relevant

To quantify the graduates' perceptions regarding their academic experience, a scale from 0 to 5 was used with 0 as the lowest and 5 the highest. Likewise, adjectival description and weight were applied as follows:

TABLE 3. Weight, scale range and adjectival description on level of contribution and relevance

Weight	Scale Range	Agreement/Disagreement	Contribution	Relevance
0	0-0.82	Strongly Disagree	Not at all	Not at all
1	0.83-1.65	Disagree	Very less	Very irrelevant
2	1.66-2.48	Somewhat Disagree	Less	Less irrelevant
3	2.49-3.31	Somewhat Agree	Neutral	Neutral
4	3.32-4.14	Agree	Much	Relevant
5	4.15-5.00	Strongly Agree	Very Much	Very Relevant

3. RESULTS AND FINDINGS

3.1 Profile of the Respondents

3.1.1 Personal Characteristics

TABLE 4. Distribution of respondents by biographical characteristics

Characteristics	Frequency	Percentage
Gender		
Male	12	41.4%
Female	17	58.6%
Total	29	100%
Age		
21-24	19	65.51%
25-34	10	34.49%
Total	29	100%
Civil Status		
Single	24	82.8%
Single parent	1	3.4%
Married	4	13.8%
Total	29	100%
Location of Residence		
City	1	3.4%
Municipality	28	96.6%
Total	29	100%

The biographical traits of the graduates according to gender, age, civil status and location are presented in Table 4. As can be seen, the majority (17 or 58.6%) of the respondents are female although quite a high percentage represents the male population. Nineteen or 65.51% are within the age range of 21-24 years old, opposing 10 or 34.49% within the 25-34 brackets. Most of them (24 or 82.8%) are single and reside in rural municipalities (28 or 96.6%). Results show that the graduates are generally young, single and concentrated in the rural areas as their residence. Also, there is an almost equal number of graduates by gender.

3.1.2 Educational and Professional Achievements

TABLE 5. Distribution of the respondents according to their educational and professional achievements

Characteristics	Frequency	Percent (%)
Number of years to finish college		
4	26	89.7%
5	2	6.9%
7	1	3.4%
Total	29	100%
Honors or awards received		
Cum Laude	3	10.3%
None	26	89.7%
Total	29	100%
Professional examination passed		
Career Service	1	3.4%
LEFT	6	20.7%
None	22	75.9%
Total	29	100%

Graduates' educational and professional milestones were likewise determined based on the number of years of completion of the college degree, honors and awards received, professional examinations passed, and advanced studies and training undergone (Table 5). A very high percentage of graduates (26 or 89.7%) completed their degree within the prescribed four-year period as opposed to the three (3) others who finished it in five (5) and seven (7) years, respectively. Out of the 29 respondents, only three (3) of them earned academic honors as Cum Laude upon graduation. Only six (6) takers passed the Licensure Exam for Fisheries Technologists (LEFT). A substantial number (22 or 75.9%) either failed the said exam or has not attempted to take it yet. Although data on graduation rate were encouraging, performance in board and professional examinations seems to lag behind as reflected in the low passing rate.

TABLE 6. Distribution of respondents according to their reasons for pursuing trainings/advance studies

Reason for pursuing advance studies	Frequency	Percent (%)
For promotion	0	
For professional development	6	20.7%
Others	1	3.4%
Not applicable	22	75.9%
Total	29	100%

Table 6 shows that the majority of the graduates found advanced studies to be not applicable to their field as reflected in their responses. Only 6 out of 29 graduates considered professional development as an important motivation to career growth. Various recent studies have found relationships between reasons for choice and academic satisfaction (Bailey & Phillips, 2015; Doña & Luque, 2019; Hardré et al., 2019; Ulas & Yildirim, 2018) ^[5, 6, 7, 8]. Hardré et al. (2019) ^[7] conclude that the degree of correspondence between objectives for taking a master's degree or advanced studies and the perceived benefits of the program determines students' satisfaction.

3.1.3 Reasons for taking BS Fisheries

TABLE 7. Reasons for taking BS Fisheries

Reasons*	Frequency	Percent (%)	Rank
Good grades in high school	1	1.3	11.5
Influence of parents or relatives	16	21.1	2
Peer influence	3	3.9	7.5
High grades in the course/subject area related to the course	1	1.3	11.5
Inspired by a role model	4	5.3	5.5
Strong passion for the profession	1	1.3	11.5
Prospect for immediate employment	8	10.5	4
Availability of course offering in chosen institution	15	19.7	3
Prospect of career advancement	4	5.3	5.5
Affordable for the family	17	22.4	1
Opportunity for employment abroad	1	1.3	11.5
No particular choice or no better idea	2	2.6	9
Others**	3	3.9	7.5
Total	76	100%	

In this present study when graduates asked for reasons why they pursued BS Fisheries, most graduates indicated that they considered the following: 1) affordable education at Partido State University, 2) influence of parents or relatives, 3) course availability in Partido State University, 4) prospect for immediate employment and career advancement, and 5) inspiration by a role model as their top 5 driving factors. From these results, it implies that what mattered most to the graduates with regards choosing BS Fisheries related to their financial and personal concerns. Decisions of their parents and benefactors influenced them to a certain extent. This result is opposite to some studies, (Gazo, P.F., et.al, 2020) ^[9] stated reasons for students' choices of degree are seen as an indicator of their expectations of the program. Some analysts have explained the relationship between motivation and satisfaction through the notion of commitment: thus students' initial motivations influence their engagement and commitment (Gutiérrez et al., 2018; Suhlmann et al., 2018) ^[10,11], which in turn affect academic satisfaction (Arizaga & Luna, 2019; Ulas & Yildirim, 2018) ^[12, 13].

3.1.4 Employment Data

3.1.4.1 Employment Status

Students in any degree program, particularly graduates are required to earn a sense of competence in their chosen field and develop self confidence to explore new possibilities and new employment specially that there is an increasing competition among rivals at work (Mathed, 2008) ^[14]

TABLE 8. Distribution of respondents according to employment status

Status	Frequency	Percent (%)
Employed (n=20)		69 %
<i>a. Regular or Permanent</i>	4	13.8 %
<i>b. Temporary</i>	0	
<i>c. Contractual</i>	16	55.2 %
<i>d. Self-employed</i>	0	
<i>e. Casual</i>	0	
Not Employed (n= 9)		31.0 %
Total		100 %

Table 8 shows the status of employment of the fisheries graduates. More than half (20 or 69%) of the respondents are working on a full-time basis during the conduct of the study. Majority of them are contractual (16 or 55.2%) while a small percentage have regular or permanent status (4 or 13.8%). Data imply that there is a high percentage of employment among the graduates of the program. However, tenure in the position is not guaranteed as reflected in the high count of contract of service workers.

3.1.4.2 Job Level Position and Place of Work

TABLE 9. Distribution of respondents according to the nature of work

Nature of Work	Frequency	Percent (%)
Local (n=19)		95%
Private	5	
Fish Processing	2	
Offices	3	
Government	14	
BFAR	12	
LGU	1	
Research center	1	
Abroad (n=1)	1	5%
Total	20	100%

Out of the 20 employed graduates, 19 or 95% of them gain local employment in both private and public establishments and offices (Table 9). More graduates are employed in government offices like the Bureau of Fisheries and Aquatic Resources (BFAR), Local Government Units (LGU) and a research center. While the studies conducted by Centillas, C. L. Jr., (2019) ^[15]. Most graduates of Bachelor of Science in Fishery Graduates in a Technological State College in Leyte, Philippines are employed in private agencies.

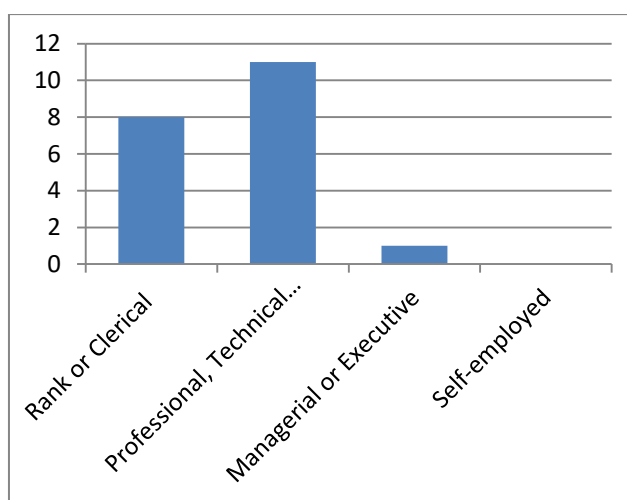


FIGURE 1. Distribution of Respondents by Position held in Current Job

Figure 1, shows the nature of the position of employed graduates in their current job. Employed graduates were likewise asked what their job level position was in their current job. At least 12 gained professional, technical or

supervisory positions, 8 occupied rank or clerical positions. This result implied that some are employed which are not relevant to their degree.

3.1.4.3 Reasons for Accepting a Job

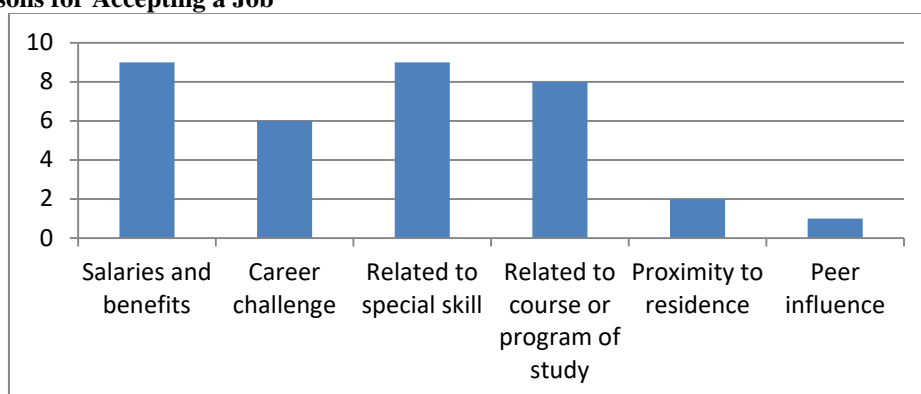


FIGURE 2. Distribution of respondents based on reasons for accepting the job

Figure 2 illustrates that motivations play a role in considering a job. For the young graduates, what appears to be the primary considerations are salaries and benefits, relationship of the course with one’s special skills, and similar study. Career challenge is not very much important with the low response rate reported. A similar study of Aquino and colleagues (2015)^[16] revealed that the reason for staying in their present employment was attributed to salaries and benefits. Furthermore, the first job of the majority of the graduates was related to the degree program they took up in college. Vong (2015)^[17] also reported that the majority of the respondents of the GTS conducted confirmed that their current jobs were related to the degree they had studied in the university. Miralles and Macatangay (2015)^[18] also cited career challenge, salaries and benefits as the prime reasons for the job switch.

3.1.4.4. Compensation

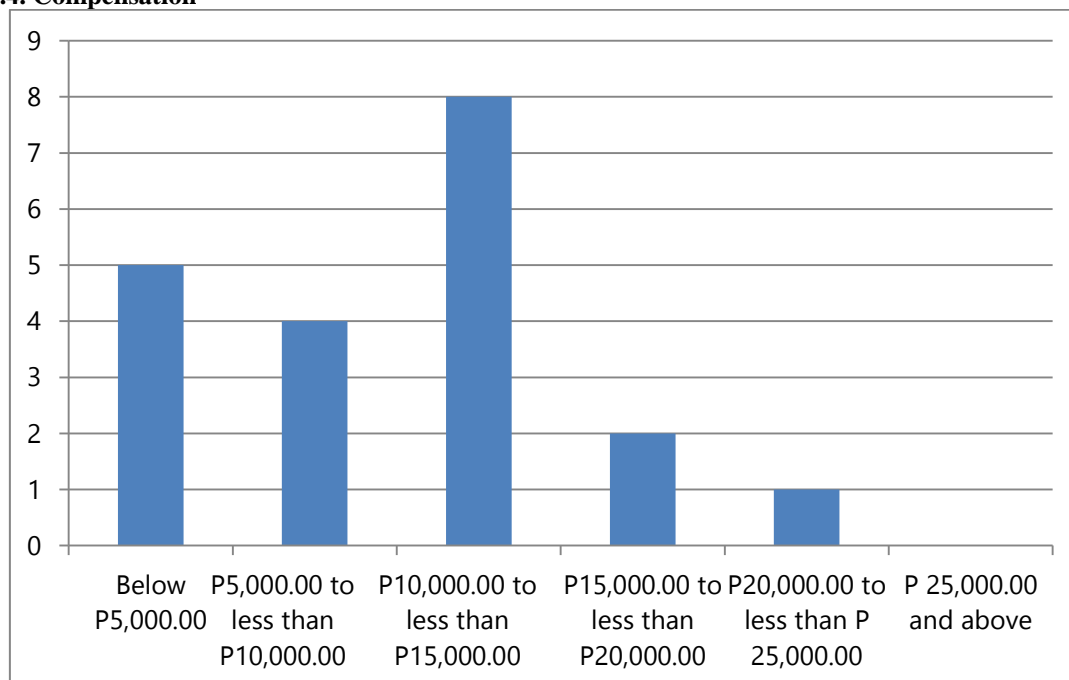


FIGURE 3. Distribution of graduates by gross monthly income

Of the currently employed respondents, the majority (8) are earning P10,000 to less than P15,000 initial gross monthly salaries, followed by 5 graduates who are earning P5,000 and below (Figure 3). The results indicate that newly graduates of the program earn moderately low initial monthly income.

3.1.1.5 Job Hunting Strategies

Job Search Strategies	Frequency	Percent (%)
Response to an advertisement		
As walk-in applicant	12	60
Recommended by someone	4	20
Information from friends	2	10
Arranged by school's job placement officer	0	
Family business	0	
Job Fair or Public Employment Service Office (PESO)	0	
Others	2	10
TOTAL	20	100

TABLE 10. Distribution of respondents based on their job hunting strategies

As noted in Table 10 most of the employed graduates searched for their first job as walk-in applicants (12 or 60%). Only a few got recommendations (4), information from friends (4), and other ways of job search (2). This result is opposite with the findings of Cuadra, LO. J., et.al, (2019)^[19] that the majority of the graduates on the way of landing their first job is through recommendation from someone which was the most effective means. Hence, school's arrangement on job placement may be done to help newly graduates to find jobs which are relevant to their degree.

3.1.1.6 Length of Waiting Time

Length of Time	First Job		Current Job	
	Frequency	Percent (%)	Frequency	Percent (%)
Less than a month	3	10.3	3	15
1 to 6 months	10	34.5	9	45
7 to 11 months	3	10.3	3	15
1 year to less than 2 years	4	13.8	4	20
2 years to less than 3 years	1	3.4	1	5
3 years to less than 4 years				
Did not Respond	8	27.6		
TOTAL	29	100	20	100

TABLE 11. Distribution of respondents according to length of job search

This study also delved into graduates' waiting time before they were hired in their first job. Table 11 shows the length of job by the respondents. Close to half of the graduates landed a job in 1 to 6 months. Eight or 27.6% did not respond to the question. The waiting time was almost similar with their waiting time for their current job with nine (9) respondents. These findings were similar with the findings of Deblois, E. C. (2021)^[20], that it took less than one month for most of the respondents and for the study of Del Rosario (2019)^[21], which 42% of their respondents were able to find jobs in 2-5 months after graduation. On the other hand, it is in contrast to the article written by Quismundo, T. (2012)^[22]. CNN Philippines, which stated that newly graduates job seekers have difficulty to be hired immediately after graduation since most employers prefer to hire applicants with work experience.

3.1.1.7 Reasons for Unemployment

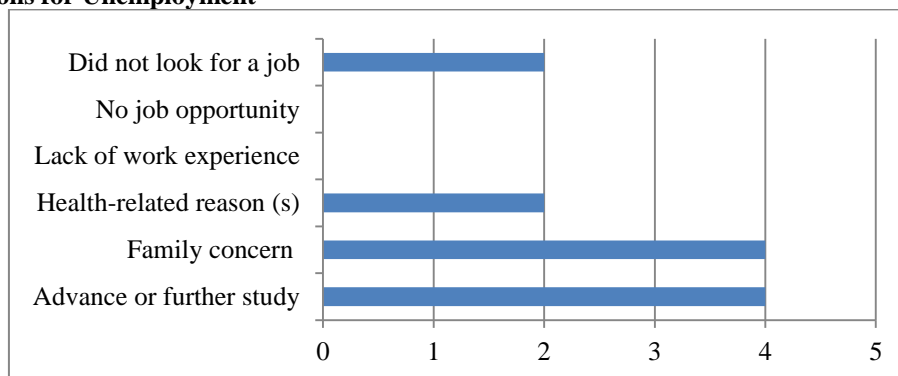


FIGURE 4. Distribution of respondents according to their reasons for being unemployed

Figure 4 illustrates the frequency distribution of the respondents' reason(s) for their unemployment. Out of the nine (9 or 31%) unemployed, four (4) reported that the common reasons for choosing not to be employed are family concerns and advanced or further studies. Similar study of De Chavez, Paloma D, (2022)^[23] revealed that the topmost reasons why they were not employed was due to family duties and concern especially those who just got married (25.68%) followed by rehiring/recall (17.57%) and for other reasons that was not included in the choices (16.22%). Salvosa, F. (2015)^[24] stated that unemployment has been one of the problematic concerns of the national government for decades now despite its efforts to improve the quality of jobs available though it has been continuously increasing its employment rate by creating different jobs and business dealings with both the private and public entities.

3.2 Satisfaction with the Services, Learning Environment/Climate and Facilities

For if State Universities offering BS Fisheries are to develop an educational environment for student success, academic and administrative staff must understand that preparation, ability, and motivation are only part of the persistence puzzle (Ortega-Dela Cruz, R. A., 2016).

TABLE 12. Distribution of respondents by degree of satisfaction with the services provided by Partido State University

Services	Weighted Mean	Interpretation
Administrative support	3.66	High Satisfaction
Faculty support	4.03	High Satisfaction
Staff support	3.83	High Satisfaction
Academic advising	3.9	High Satisfaction
Guidance and counseling	3.93	High Satisfaction
Accommodation	3.62	High Satisfaction
Food services	2.89	Moderate satisfaction
Recreational services	3.32	Moderate satisfaction
Health services	3.07	Moderate satisfaction
Library services	4.04	High Satisfaction
Extension/outreach/community involvement	3.46	Moderate satisfaction
Extracurricular activities	3.46	Moderate satisfaction
Security	3.21	Moderate satisfaction
Composite Mean	3.57	High Satisfaction

Graduates claimed high satisfaction with the services being offered by Partido State University specifically with administrative support, faculty support, staff support, academic advising, guidance and counseling, accommodation and library services (Table 12). studies revealed that the influential factor which affects the student's satisfaction on services arose from the helpfulness of staff and user-friendly environment. Students have also identified that the student support services such as Guidance Service, Students Affairs, School Clinic, and Registrar were very satisfactory (Atique & Siddiqui, 2019; Madusanka, Nawarathne, & Rathnayaka, 2019; Magulod, 2017; Mohindra & Kumar, 2015; Nawarathne & Singh, 2013)^[26, 27, 28,29,30]. These offices are the ones that students frequently visited and accommodated students' concerns in their stay at the college and identified by Arangote (2018)^[30] as necessary and part of the student's life. These support services were recognized as vital and students first gained institutional experiences and satisfaction. Support services fulfill students' expectations and also invites new students (Silva & Fernandes, 2012)^[32]. Furthermore, studies on guidance services reflected the similarity with this finding. Students in public schools in the Philippines were very satisfied with the Guidance services and showed exceptional services to students (Arangote, 2018; Magulod, 2017)^[31, 28]

4. CONCLUSIONS AND RECOMMENDATION

In the light of the preceding findings, it consequently concluded that there was a good symbiotic responsibility practiced by teachers and parents regarding modular learning modality. Their channel of communication is very beneficial to parents, teachers and pupils. However, there are factors affecting school performance of the pupils which are lack or absence of additional materials, lack of knowledge by parents on the topics in the module, internet connectivity, financial status of parents and domestic tasks of parents at home. Hence, the Department

of Education (DepEd) officials and school heads may support curriculum and module writers to consider strategies or measures that make modular learning to come up with better learning outputs.

5. ACKNOWLEDGEMENT

The author wishes to convey her sincerest gratitude to teachers, parents and pupils participated in the completion of this academic endeavor.

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