

Use of Tracer Studies to Enhance the UPOU Environment and Natural Resources Management Graduate Program

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Abstract

Distance education has evolved and improved since the advent of the Internet. Open and distance e-learning (ODEL) for higher education has allowed ease of access to higher institutions of learning for professionals and adult learners. The University of the Philippines Open University (UPOU) has been offering the Diploma and Master of Environment and Natural Resources Management (MENRM) since 1999 through open and distance learning. The current program now offers a ladderized program with two-exits: a Diploma and a Master's degree. This paper presents the results of an analysis of the profile of MENRM applicants and a tracer study on graduates about their motivations for choosing to pursue graduate studies at UPOU. It also explored how having earned a postgraduate degree has affected their current jobs. The admission information showed that more than 90% of admission applicants were employees of private institutions and government offices occupying mid-level and senior management positions mostly based in the Philippines. The study has shown that their work schedule was an important consideration in pursuing a MENRM graduate program. The tracer study of 29 MENRM graduates also showed that the increase in their work responsibility and compensation can be attributed to their successful completion of the program. Moreover, it has contributed to their personal and professional development, particularly in their increased capacity for project and people management and policy making, as well as improved skills in research, technical, and critical thinking. However, the enrichment and development of communication skills as a required 21st century skill of MENRM graduates need to be better addressed in the program.

Keywords: Capacity-building, open and distance learning, environment and natural resources management, Philippines

Introduction

The University of the Philippines Open University (UPOU) is a regional champion of open and distance learning, leading the use of web-based technologies and other innovations for teaching and learning. The UPOU has offered the Diploma and Master of Environment and Natural Resources Management (MENRM) since August 1998, and eventual admission of graduate students in the second semester of school year 1999-2000. Since then, it has admitted an average of 60 students per semester and awarded 247 Diploma (DENRM) and 130 Master's degrees to mostly Filipino students based in the Philippines and overseas. The program underwent revision in 2010 and has allowed for two exits: a Diploma and Master's degree following a ladderized system of admission. For students intending to exit after completing 24 units of coursework, a diploma is awarded. Continuing students are awarded a Master's degree after finishing 27 units of coursework, 6 units of research-related courses and a cap requirement of a special problem (3 units) after passing a comprehensive examination. The admissions requirement of the program follows the "open" education philosophy while espousing the honor and excellence tradition of the University of the Philippines. The minimum requirement for regular admission is a baccalaureate degree in any field with a passing General Weighted Average of 3.0 or better. These post-baccalaureate degrees were designed to equip graduates with knowledge about the environment and its management,

develop critical thinking and technical skills, design management plans for implementation, and contribute to policy changes.

Tracer studies are conducted to follow-up on what has happened in the lives of individuals after an event has taken place. It derives its name from trace which means to find or locate (International Labour Organization, 2011). Tracer studies and other impact assessments have the same main objective which is “to systematically analyse the lasting or significant changes - positive or negative, intended or not - in people’s lives brought about by a given action or series of actions” (Roche in Osei & Dontwi, 2014).

In educational institutions, they are used to acquire data which may be useful for the development of the university (Schomburg, 2010). Tracer studies are usually used interchangeably with follow-up or graduate alumni surveys (Osei & Dontwi, 2014). However, according to Lamoure (1995), these terms are not exactly the same. Their main difference lies in the period of data collection: Follow-up studies are done while the students are still studying while tracer studies are conducted after the students have graduated. Lamoure (1995) added, however, that both can produce similar types of data. Through tracer studies, educational institutions can gain information about their graduates’ employment and career, character of work and related competencies, and experiences (Osei & Dontwi, 2014). Tracer studies in the educational setting also aim to provide the following: a. gain feedback on study programs (Egesah & Wahome, 2013) or to determine how the students perceive the curriculum, teaching and assessment (Bahroom, Latif, and Awang 2014); b. assess the quality of services delivered by their respective schools (Schomburg, 2003); c. determine the performance of the institution based on the performance of the graduates; and d. determine how their education played a role in their career promotions, decisions to pursue higher studies and in gaining entry to schools which offer post graduate programs (Bahroom, Latif, and Awang 2014).

Tracer studies have also been conducted in institutions which offer educational services in distance mode although they are considerably few (Osei & Dontwi, 2014). This will help ODeL institutions monitor the effectiveness and relevance of courses delivered through ODeL and how it can improve the student’s success in a career after graduation (Millington, n.d.).

Objectives

This study aimed to assess through tracer studies how the MENRM graduate program delivered through open and distance e-learning (ODeL) has contributed to capacity-building in the field of environmental and natural resources management.

Materials and Methods

Data was gathered from MENRM admission data and a tracer study of MENRM graduates from school years 2010-2014. Professional backgrounds of 534 MENRM applicants were examined by looking at employment status, employment sector, and location/concentration indicated in their student profiles. Aside from this, submitted essays – a requirement for admission to the program – were also assessed to determine their reasons for applying, as well as their future plans. Finally, a tracer study was conducted online (through Google docs) to determine the views of the graduates on how they benefitted from the MENRM program, and to what extent the program has

contributed to their personal and professional development. A total of 29 MENRM graduates responded to the online tracer study.

Results and Discussion

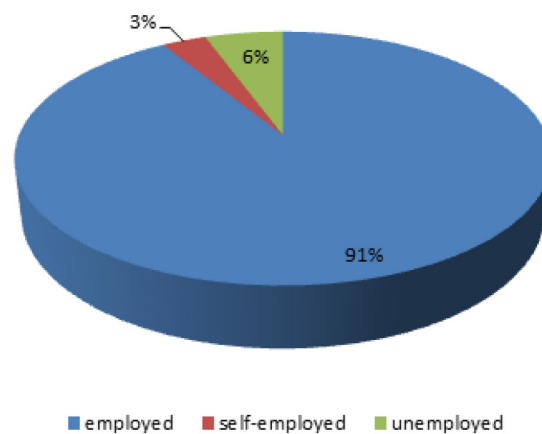
The results of this study are presented in two parts. The first part presents the MENRM applicants' profiles using information submitted by the applicant for admission to the program. Meanwhile, the second part discusses the results of the online tracer study conducted among MENRM graduates.

A. MENRM Applicants Profile

Employment

Out of 534 applications received, 91% of applicants were employed by government and private institutions, 3% were self-employed, and the remaining 6% were unemployed (Figure 1). As expected, majority of adult learners pursuing graduate studies under ODeL are employed.

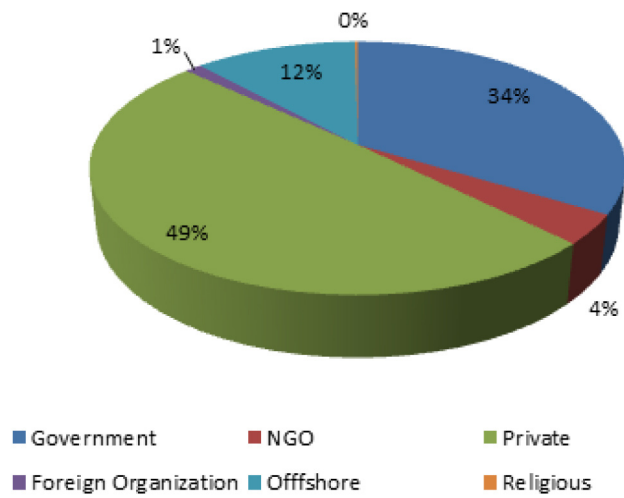
Figure 1. Employment profile of MENRM graduate program applicants (n = 534), school years 2010-11 to 2014-15.



Work/Sectoral Group

Almost half of all MENRM program applicants were employed by private institutions (Figure 2). This was followed by government employees (34%), and overseas workers (12%). The remaining applicants belonged to non-government organizations (4%), foreign organizations (1%), or religious orders (<1%).

Figure 2. Employment sectoral group profile of MENRM graduate program applicants (n=504), school years 2010-11 to 2014-15.



Location

Majority of MENRM applicants (88%) were based in the Philippines, while the rest were living overseas (Figure 3). Of the 470 applicants located in the Philippines, 40% were within and around Metro Manila, followed by South Luzon area (14%), the Mindanao regions 9-12, CARAGA and ARMM (10.29%), and the Visayas regions 6-8 (10.11%) (Figure 4).

Figure 3. Geographic location of MENRM applicants (n=534), school years 2010-11 to 2014-15.

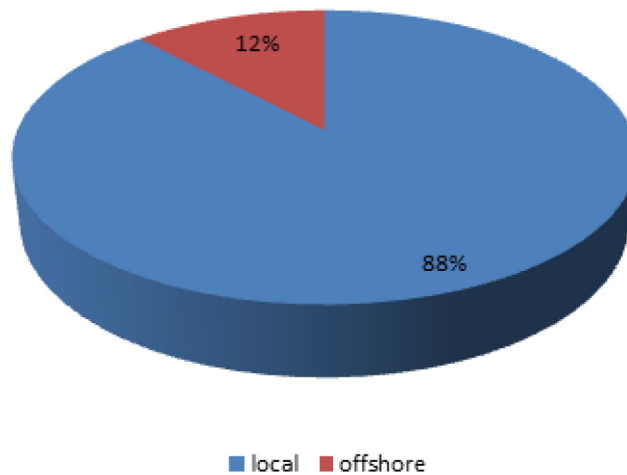
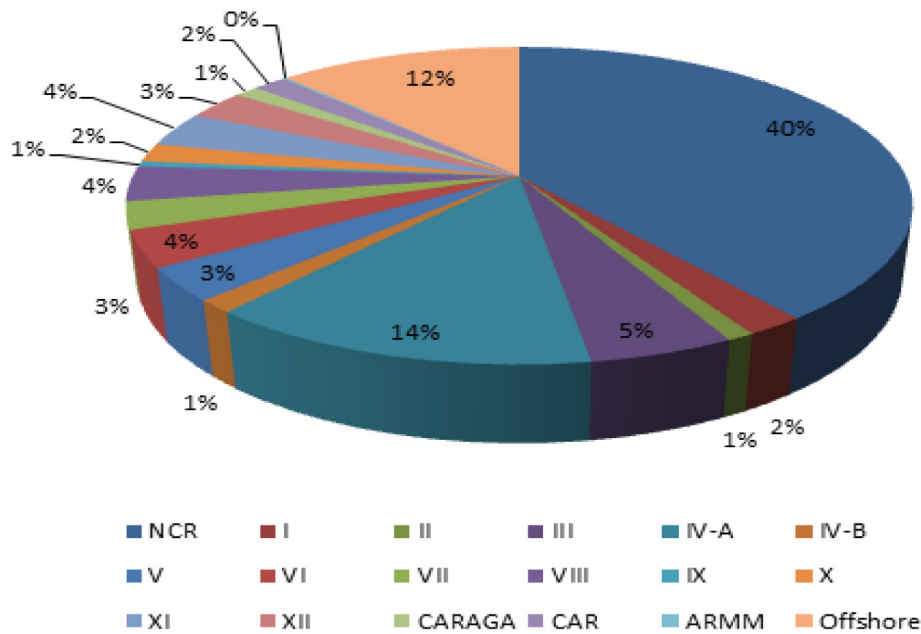
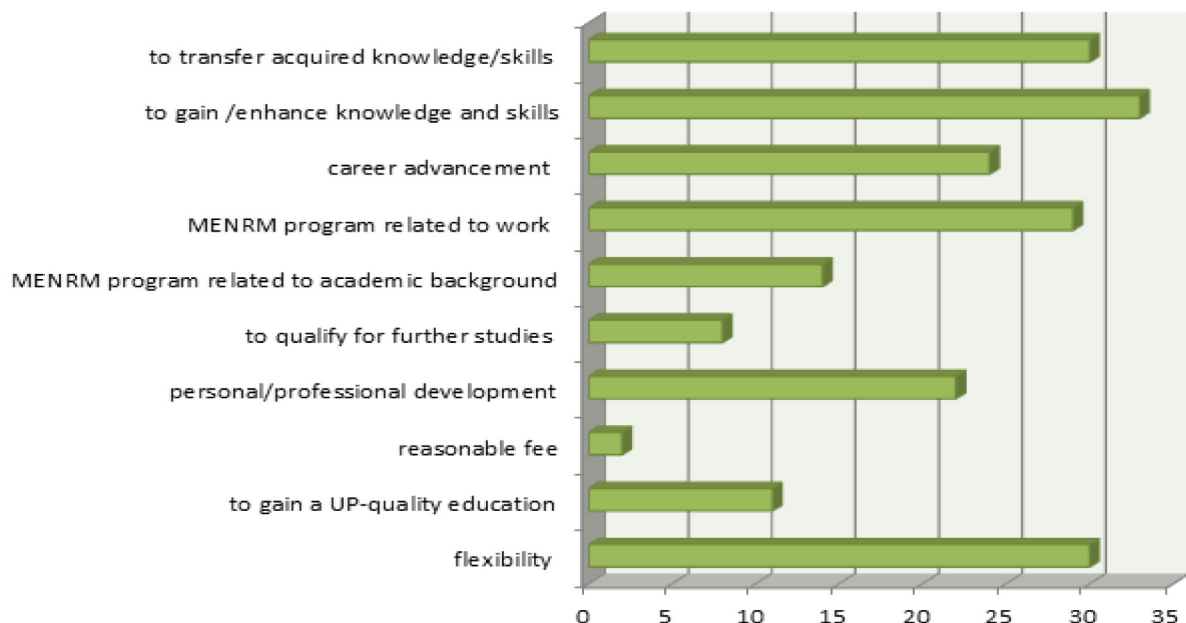


Figure 4. Regional Location of MENRM applicants (n=534), school years 2010-11 to 2014-15.



Based on the application essays of 50 MENRM program applicants (9 applicants had no essays on record), the most common reasons for applying to the MENRM program via ODeL were: 1) to gain/enhance knowledge and skills; 2) flexibility (in terms of time, remote access); 3) to transfer acquired knowledge and skills; and 4) MENRM program is related to their current work.

Figure 5. MENRM admission essay stating reason for application (n=534), school years 2010-11 to 2014-15.



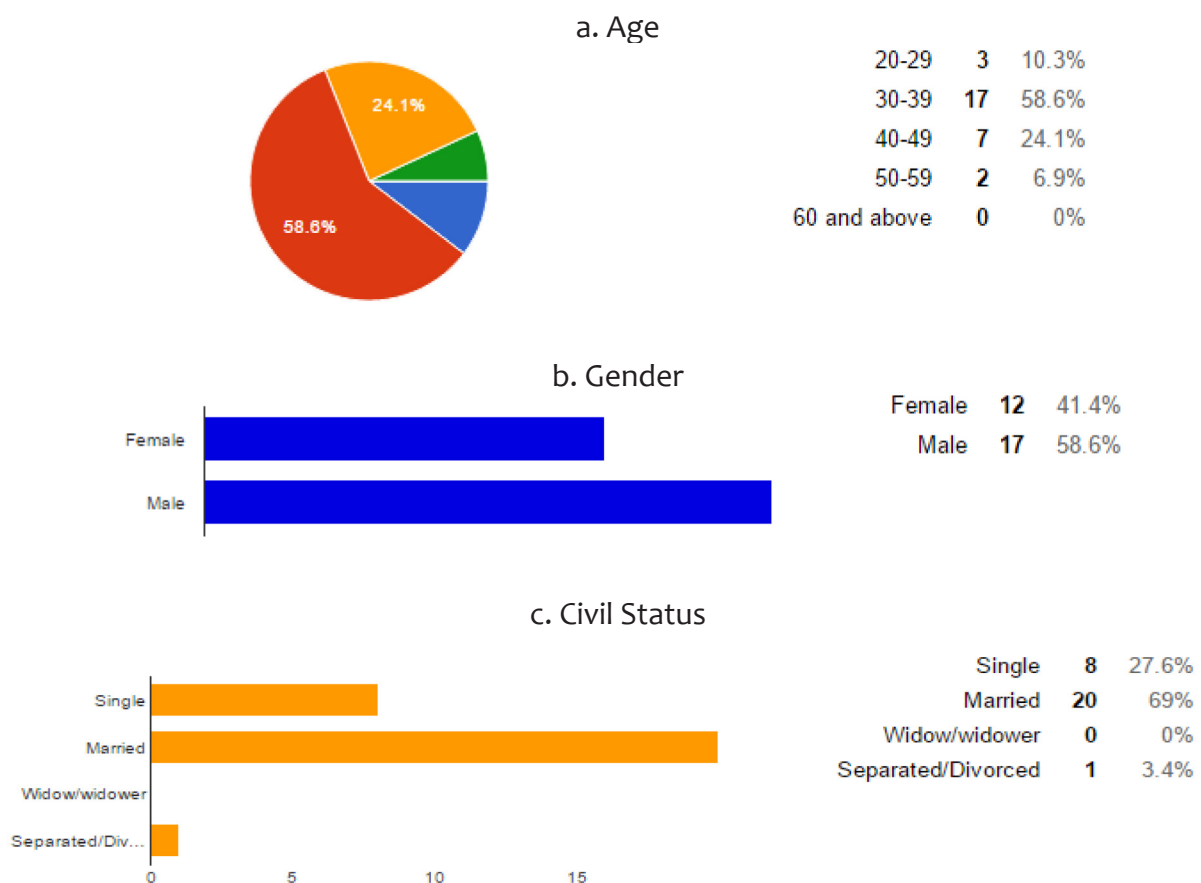
The “knowledge and skills” cited by respondents referred to those on environmental/resource conservation, protection, and management, which they also sought to transfer through advocacy, teaching, capacity-building of local communities, and provision of technical assistance. Flexibility referred to a balance of school, work and family in as much as ODeL allows for all three to work in harmony. Time for studying becomes more flexible since “virtual classrooms” for graduate courses are available 24/7. ODeL is also more flexible as it allows for independent learning. Other reasons for pursuing a MENRM graduate degree were related to career change, advancement or promotion, better employment opportunities and professional development.

B. MENRM Graduates: A Tracer Study

MENRM graduate profile

Fifty-eight percent of the respondents belonged to ages 30-39, while the next biggest group (24%) were applicants between 40-49 years old (Figure 6a). Almost 60% were male, and 40% were females (Figure 6b). In terms of their civil status, 69% were married, 28% were single, while one respondent was separated/divorced (Figure 6c).

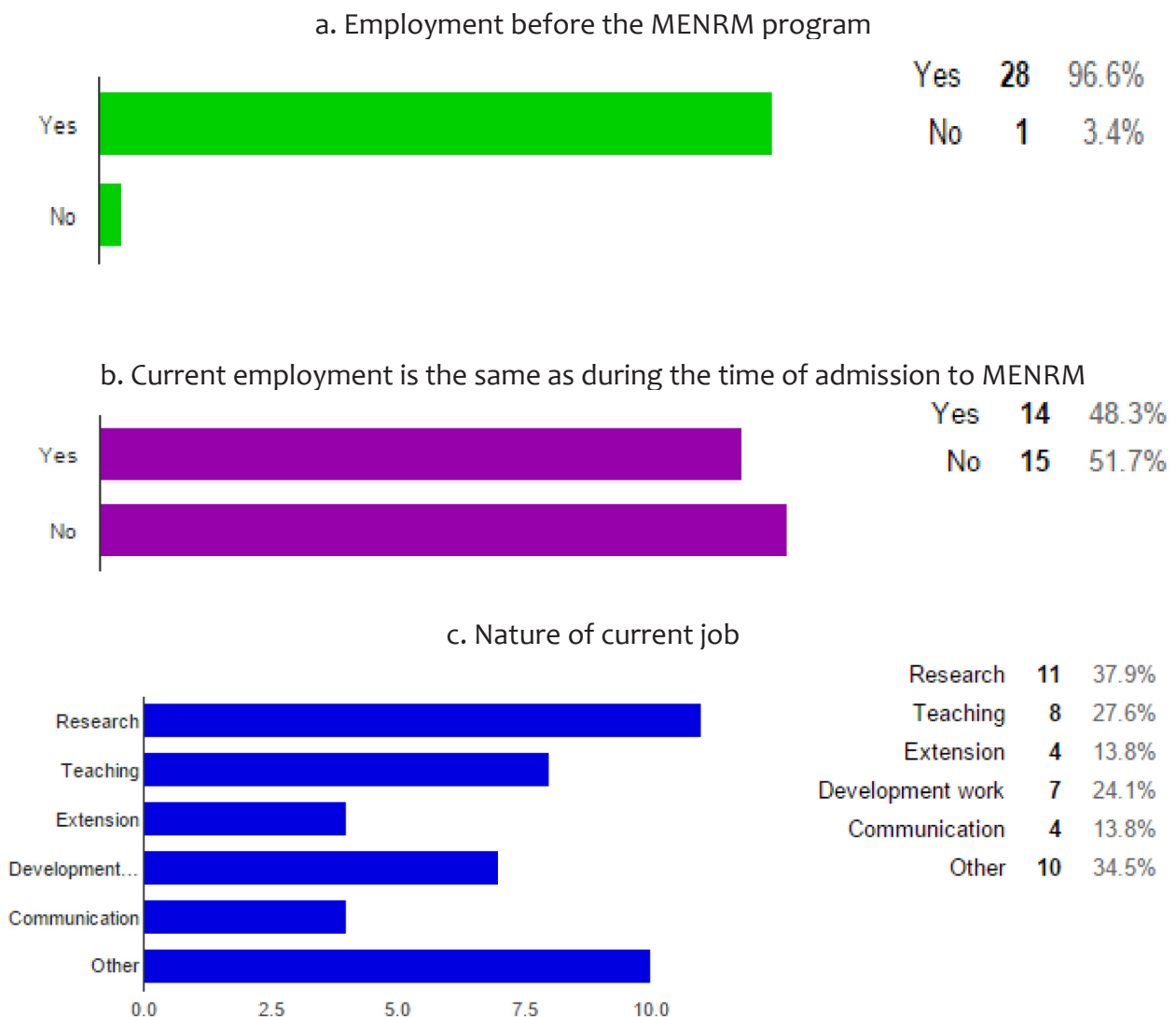
Figure 6. a. Age, b. Sex and c. Civil Status of MENRM graduates (n = 29) from school years 2010-11 to 2014-15.



Employment and career

Ninety-six percent of the respondents were employed before they started their post-graduate degree (Figure 7a). However, 52% of the respondents experienced a change in their jobs while pursuing the degree (Figure 7b). When asked about the nature of their jobs, 38% said they were into research, 35% were self-employed or doing managerial work, 28% were teaching, 25% were doing development work, while another 28% were engaged in extension and communication (Figure 7c).

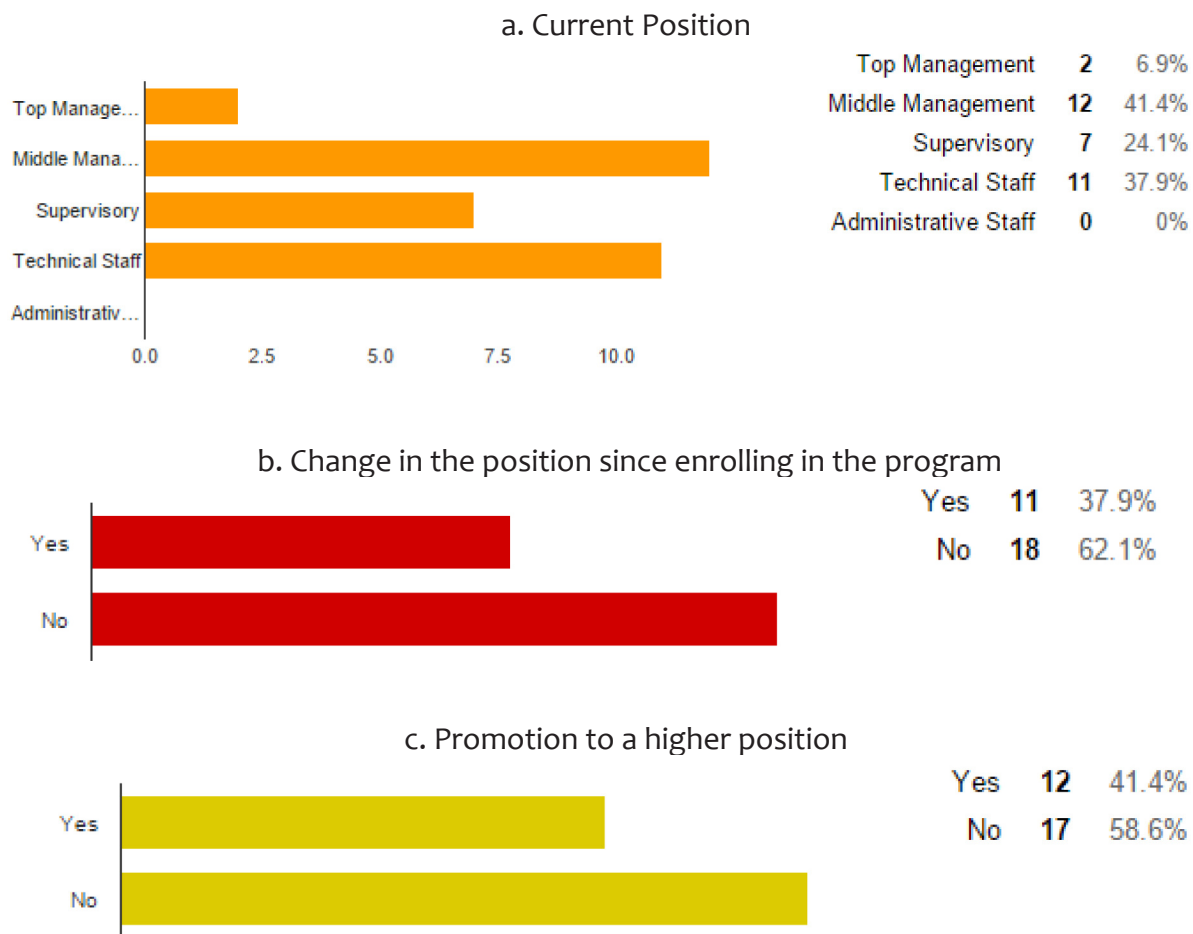
Figure 7. Employment and career related information of MENRM graduates (n = 29) from school years 2010-11 to 2014-15 a. Employment before the MENRM program, b. Change in jobs while in the program, c. Job classification while doing the program (multiple answers)



Changes experienced after earning MENRM degree

As shown in Figure 8a, majority of the respondents belonged to middle management and supervisory positions, or were technical staff. Only 7% occupied top management ranks. However, during the course of their program, 62% of the respondents indicated that they have since changed ranks (Figure 8b), while 38% said their ranks have not changed. In relation to this, 41% are currently occupying higher positions, while 59% said their positions are still the same (Figure 8c).

Figure 8. Current rank of MENRM graduate respondents (n=29) a. Current position (multiple answers), b. Change in the position since enrolling in the program c. Promotion to a higher position.

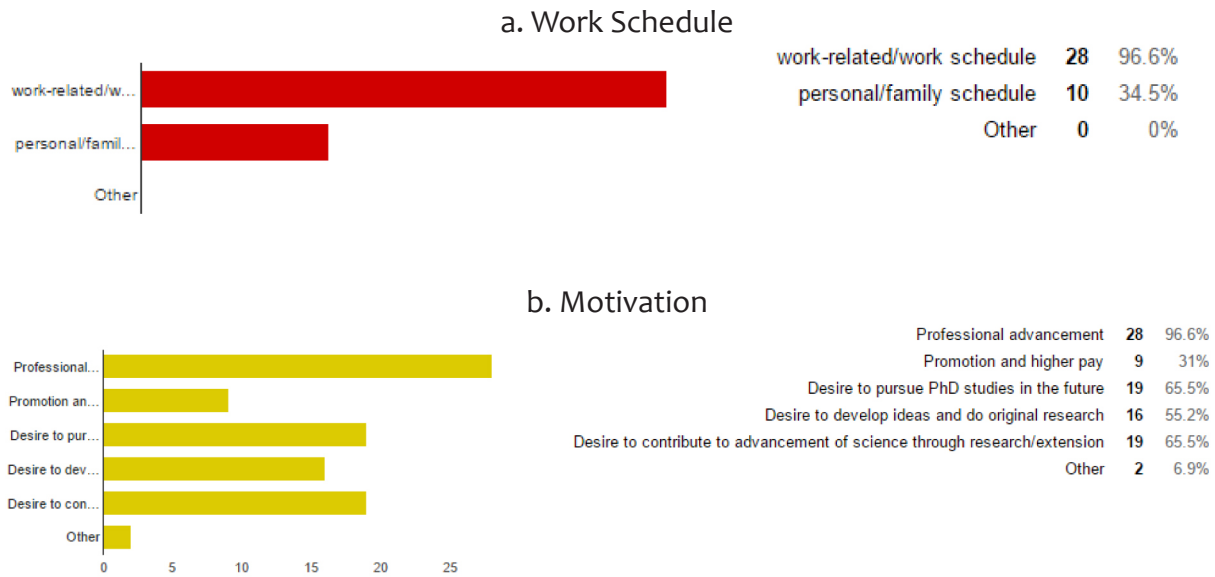


Reasons for pursuing graduate studies

When asked for the reasons why they considered open and distance learning over residential classes, 96% of the respondents said their work schedule was an important factor (Figure 9a). Meanwhile, 34% cited personal or family schedules as main reasons.

The graduates were also asked what motivated them to pursue graduate work. Figure 9b shows that 96% said it was for professional advancement, 65% desired to pursue PhD studies or research and extension work, 55% wanted to do original research, while 31% were eyeing promotion and higher pay.

Figure 9. Responses of MENRM graduate respondents (n=29). Reasons for open and distance learning a. Work Schedule and b. Motivation (multiple answers)



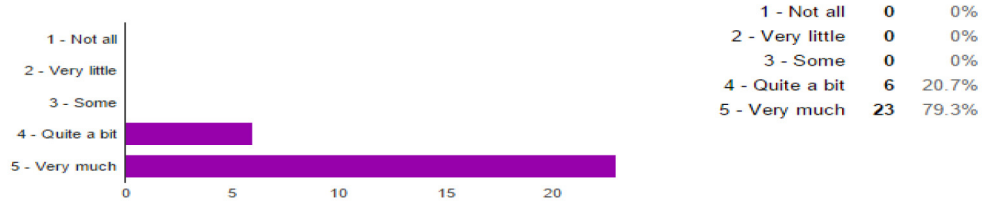
Advantages of a MENRM graduate degree

As a graduate program, the MENRM curriculum is expected to enhance the academic knowledge, capacity for critical thinking, and research skills of its students, while independent learning and communication skills are developed through the ODeL approach. However, it is likewise important to ensure that MENRM students are able to communicate more effectively as a result of their postgraduate studies.

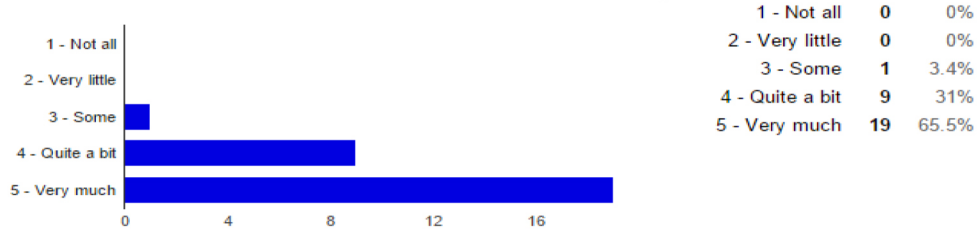
Respondents were asked about how the MENRM post-graduate degree has affected their personal and professional lives. Majority of the MENRM graduates who participated in the tracer study felt that the program contributed “very much” toward enhancing academic knowledge (79%), capacity for critical thinking (65%), research skills (62%), learning efficiency (62%), and confidence in independent learning (72%) (Figure 10). On the contrary, improved communication skills received more “quite a bit” (41%) than “very much” (38%) replies, revealing a need to strengthen program components pertaining to this specific skill set. Environmental communication skills are necessary to translate and convey results of scientific studies into useable information and knowledge to effect change in attitudes and perceptions of people towards the environment and its sustainability. Although responses regarding improvement of communication skills were generally favorable, it appears that there is room to further develop MENRM program components related to communication.

Figure 10 a-f. Personal skills, knowledge, and attitudes of MENRM graduate respondents (n=29), a. Enhanced academic knowledge, b. Improved critical thinking skills, c. Improved research skills, d. Improved learning efficiency, e. Improved communication skills, and f. Confidence in learning independently.

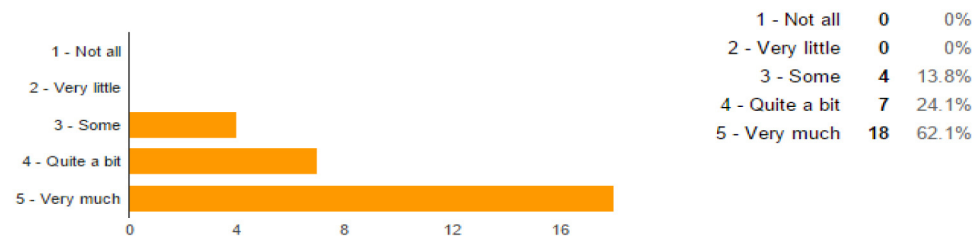
a. Enhanced academic knowledge



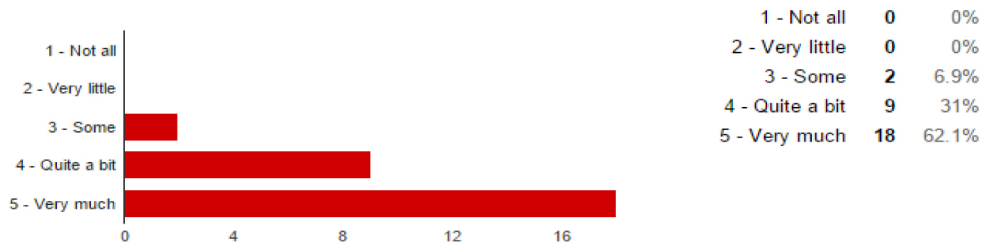
b. Improved critical thinking skills



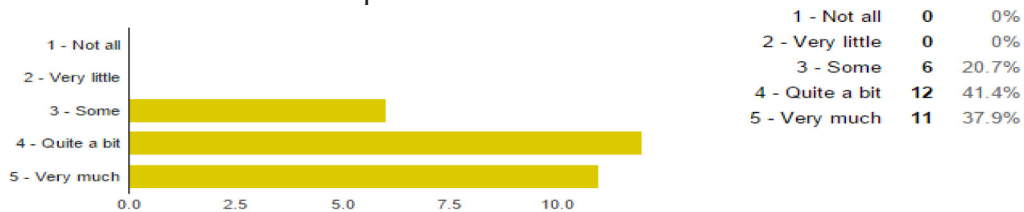
c. Improved research skills



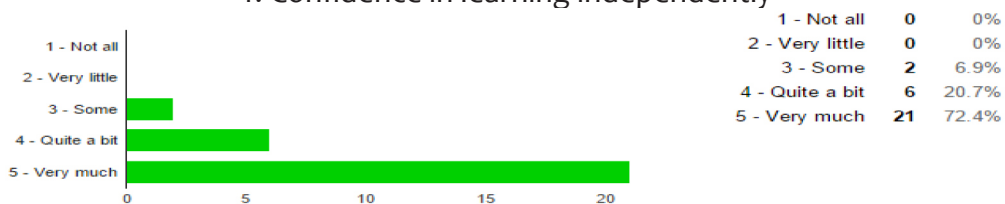
d. Improved learning efficiency



e. Improved communication skills



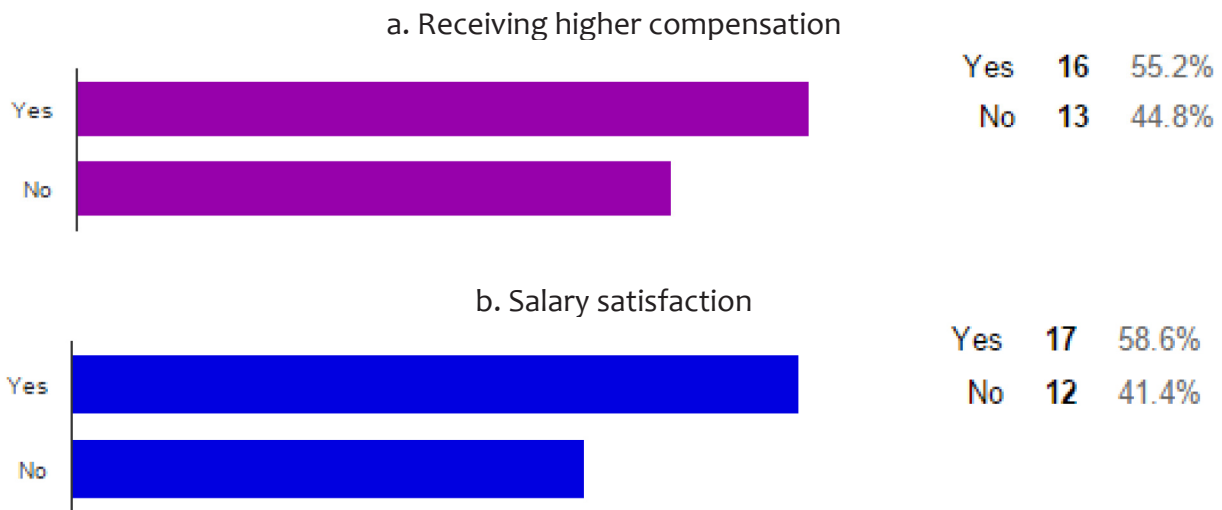
f. Confidence in learning independently



Compensation

Reflecting on their compensation, 55% of the respondents reported that they were currently receiving higher salaries than before they started their MENRM studies. Meanwhile, 58% answered in the affirmative when asked if they were happy with their current compensation.

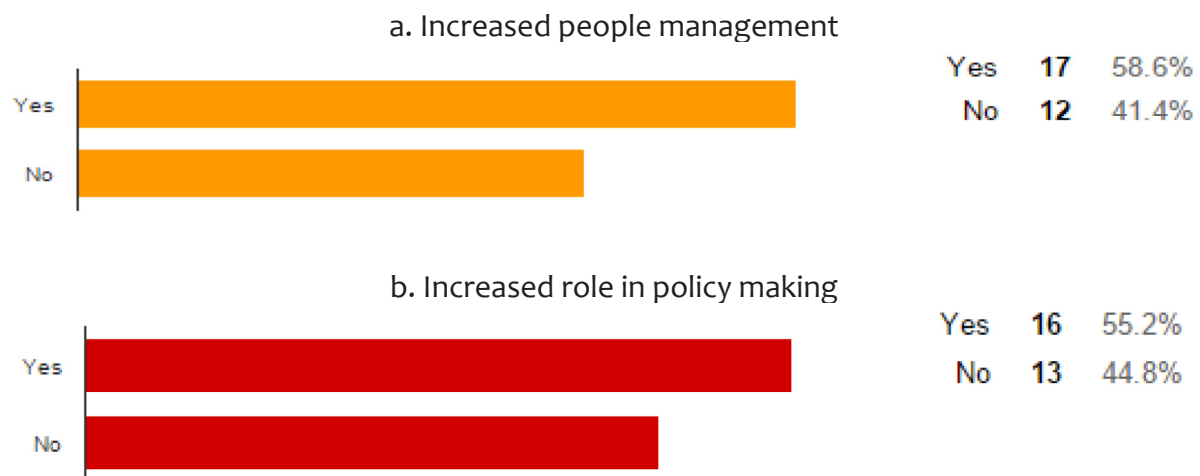
Figure 11. Compensation of MENRM graduate respondents (N=29)
a. Receiving higher compensation and b. Salary satisfaction.

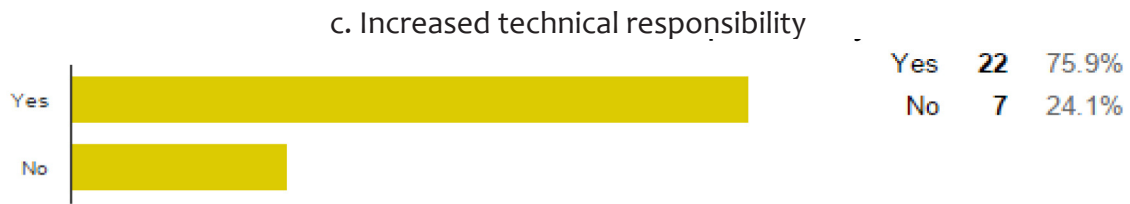


Professional Skills and Competencies

The next set of questions focused on three important skills – people management, policy making, and technical or operational skills. Since earning their MENRM degree, 75% of the graduates felt that there has been an increase in their technical responsibility, while 55% and 60% said their role in policy making and managing people also increased, respectively (Figure 12 a-c).

Figure 12. Responses of MENRM graduate respondents (n=29) of the tracer study on professional skills and competencies related to a. Increased people management, b. Role in policy making and c. Role in technical responsibility.





Summary and Conclusion

The University of the Philippines Open University has offered the Diploma and Master of Environment and Natural Resources Management since its approved institution in August 1998 through open and distance learning. With the affordances of web-based technologies, the program is now offered almost completely online, except for the proctored sit-down comprehensive examination administered through learning centers and institutional partners. As an institution of higher learning, UPOU has developed a graduate program intended to provide adult life-long learners with professional skills and competencies in environment and natural resources management by earning qualification for a Diploma or Master’s degree. An assessment of the MENRM program was done through an analysis of graduate admission data and a tracer study of MENRM graduates from school years 2010-2014. The study has shown that their work schedule was an important consideration in pursuing an MENRM graduate program through open and distance learning as majority of the applicants are employed. The MENRM program has contributed to their personal and professional development, particularly in their increased capacity for project and people management, policy making, research and technical skills, and critical thinking skills. However, it appears that development of communication skills need to be targeted and better addressed through the program.

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