

THE EXTENT OF IMPACT OF TRAINING WORKSHOP ON THE BASIC DESCRIPTIVE STATISTICS USING MS EXCEL ON THE PERFORMANCE OF THE BARANGAY OFFICIALS AND STAFF OF CAGAYAN DE ORO CITY, PHILIPPINES

*Marife V. Ubalde, Al-Monte Vince Calo, Shara Baylin

University of Science and Technology of Southern Philippines, Lapasan, Cagayan de Oro City, Philippines

Correspondence Tel.: ¹ +63 905 136 4531, *E-mail: ¹marife_ubalde@ustp.edu.ph

ABSTRACT: *This study aimed to determine the impact of training workshops on basic descriptive statistics using MS Excel among Barangay Officials and Staff of Cagayan de Oro City, Philippines. This study utilized the descriptive design. The main instrument used in this study was the Basic Descriptive Statistical Literacy Training Evaluation Survey designed to measure to what extent does the extension project impacts the respondents' performance. The respondents of this study were randomly selected from the beneficiaries of the training workshop conducted. Based on the findings, the impact of the extension project is highly extent as the majority of the respondents agreed on these possible impacts as stated in the survey conducted. The said extension project has improved their work performance, skills, attitude, and accomplishments. It further developed the organization's performance and productivity resulting from the employee's positive attitude and skills that were developed due to this training conducted on them. The trainers may consider conducting training which will be participated in by one barangay at a time so that there will be more participants in each barangay. To get firmer findings, the researchers may conduct interviews and observations in enough time. There may be further workshops and training that would boost the computer skills level of the barangay staff and head of the office. The future researchers may also include the duration of the training be extended so that more time will be spent on the actual workshop of the training.*

Key Words : impact,extent,performance,basic descriptive statistics

1. INTRODUCTION

Statistical literacy is necessary for citizens to understand statistical materials and to critically evaluate information and appreciate their relevance to all aspects of life. This is especially true for our government officials, particularly at the barangay level. As the basic political unit, the Barangay serves as the primary planning and implementing unit of government policies, plans, programs, projects, and activities in the community, and as a forum wherein the collective views of the people may be expressed, crystallized and considered, and where disputes may be amicably settled [1]. Thus, barangay officials must have the basic statistical skills to perform their roles as policy planners and implementers. For example, an appointive barangay official performs such duties as keeping custody of all records of the Sangguniang Barangay and the Barangay assembly meetings, assisting the municipal civil registrar in the registration of births, deaths, and marriages, keeping an updated record of all inhabitants of the Barangay and submit a report on the actual number of Barangay residents as often as may be required by the Sangguniang Barangay [1].

Training is considered vital to enhance the skills knowledge and attitude of government employees. Training has a role in improving the performance of an employee as well as increasing productivity, and ultimately give the office a competitive edge over the vibrant successes of the government offices in Cagayan de Oro City ., Barangay Office.

The researches in the past supports the evidence regarding the positive effect of training programs on both employee and organizational performance. Past experiences signify training and employees' performance has a direct relationship with each other. With the help of training, employees can gauge their performances, identify and improve their weaknesses and turn out to be experts in their jobs and thus, tend to give better results.

As mandated by law, the University of Science and Technology of Southern Philippines (USTP) attend to community needs through its extension services such as the free training programs and livelihood skills to local government units which include teachers both in public and private schools, unemployed individuals, the out-of-school youth, indigenous tribes in the region and among others. The USTP CDO Extension and Community Relations Division (ECRD) together with the department and unit concerned is in charge of these aforementioned services. The Mathematics Department is empowered to design basic statistics skills training for the community.

The USTP CDO ECRD and Math department conducted a training workshop on basic descriptive statistics using MS Excel for the Barangay officials and staff of the city of Cagayan de Oro, Misamis Oriental, Philippines last November 6- 10, 2018. The goal of this project is to equip barangay officials and staff with the basic statistical skills needed for some of their functions in the barangay.

The objective is to teach the basic concepts in descriptive statistics especially in the area of data collection, processing and presentation with the aid of statistical software like Excel. The training was conducted only once but it is hoped that the trainees were able to apply the statistical literacy competencies in the job.

At its core is the improvement in the performance of individuals participating in training activities. Learning is achieved through training, therefore, means to be translated as an organizational resource by which the people acquire, infer and utilized. As such, performance contributes to the growth of the organization specifically since they can implement in combination competencies and expertise acquired through training. Further, training and how it impacts the performance of the employees in the barangay offices setting have received significant attention from the researchers. Hence, it is on this premise that this study was conducted to determine if the statistical literacy training program training workshop conducted by

USTP CDO ECRD & Math department significantly has an impact on the LGU of Cagayan de Oro Barangay Officials and staff's workplace performance.

2. FRAMEWORK OF THE STUDY

The conduct of the training workshop on Basic Descriptive Statistics Using MS Excel among the Barangay officials and staff of the City of Cagayan de Oro is presented in the following figure. The officials of LGU of Cagayan de Oro City are responsible for the identification of the target beneficiaries. The Basic Descriptive Statistics using MS Excel program consists of the following modules: 1)Data processing and organization: encoding and editing data (barangay forms) in Excel 2)Data presentation: making and editing graphs and tables in Excel 3) Data collection: sampling techniques, survey and census, making questionnaires and conducting field interviews. The ultimate goal of this program is to help the barangay employees of LGU Cagayan de Oro City acquire the basic statistical skills needed for some of their functions in the barangay. After the training, the beneficiaries were asked to fill out the evaluation form.

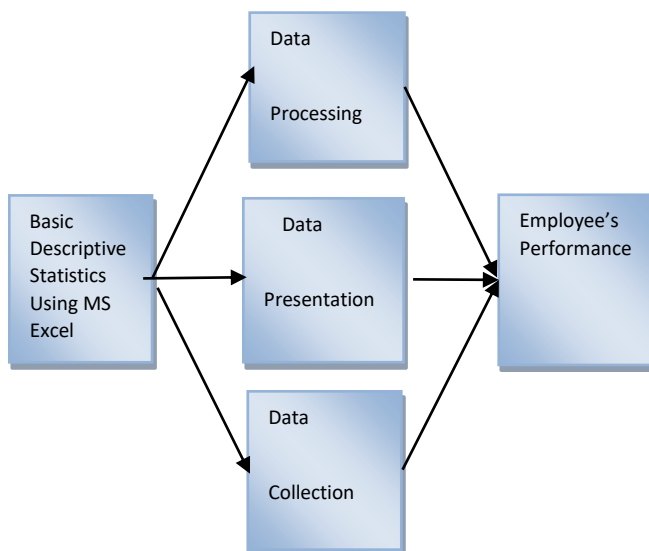


Figure 1. Process of Basic Descriptive Statistics using MS Excel Program

The present study holds the idea that the training program produces changes in the way the beneficiaries work in the traditional way and apply what they have learned during the training to make ease in their work.

3. LITERATURE REVIEW

The study conducted by [2] on the implementation of its Statistical Literacy Program for both barangay officials and senior high school students, in Dipolog City, province of Zamboanga del Norte, determined how the respondents applied their learning in their respective barangays. A descriptive type of research was utilized in the study. The result of the program gained positive results as manifested in the following: 1) how the barangay officials collected, presented and analyzed data on their respective barangays and 2) how the senior students won statistics quiz contest conducted by the NSO of the Philippines and PSA as well as the number of students who pursued BS Statistics

degree program. It is found that given enough funding for the program and appropriate support from concerned agencies and individuals, the two programs are found beneficial as revealed in this study. This study is particularly related to this present study because the main objective was to teach the basic concepts in descriptive statistics especially in the area of data collection, processing and presentation with the aid of statistical software like EXCEL among government employees, however, it is determined after the statistical literacy training was conducted.

[3] conducted an assessment on statistical literacy and training of government personnel using data from the National Statistics Office (now PSA). The assessment scheme includes a researcher-made Statistical Literacy Assessment Scale and performance-based assessment activities on data organization and interpretation which culminated with the writing and presentation of an evidence-based technical report. Using [4] also conducted a report in a study that determined the access, skills, and constraints towards the usage of ICT among barangay officials. A complete enumeration technique was used due to the small size of the population. A total of 121 barangay secretaries and barangay treasurers comprised the study respondents. The findings revealed that most of the barangay officials have access to a personal computer at home and in the office using their own mobile data and office internet connectivity. With the support from the Local Government Unit (LGU), it was found that most of the respondents are advanced and proficient in computer usage. As constraints to ICT usage, the study respondents still experienced slow internet bandwidth that makes connection and communication weak along with the low-income status. Consequently, it was found that there were no significant differences in terms of skills and constraints among barangay secretaries and barangay treasurers towards using ICT. It can be concluded that study respondents prefer to use office computers to access the information they need due to the convenience and availability of resources. The study respondents were competent enough to handle their job well but listed slow internet and low financial resources may hamper their ICT usage.

[5] investigated the relationship between digital literacy and employee performance in the oil and gas industry in Malaysia. They found out that there is a positive relationship between digital literacy in a technological context, organizational context, environmental context and employee performance. It is the aim of the present study to have a direct association between their computer literacy skills and work performance.

[6] in the findings of her study revealed that training and development have an impact on the performance of employees with regards to their jobs. This is her study in the telecommunication industry in Uganda.

4. METHODOLOGY

2.1 Research Design

This study utilized the descriptive design. In the present study, the survey questionnaire administered to the trainees of the basic descriptive statistics program was the basis for the quantitative data concerning their work performance after they are trained with the basic descriptive statistics using MS Excel.

2.2 The Instruments

The main instrument used in this study was the Basic Descriptive Statistical Literacy Training Evaluation Survey designed to measure to what extent does the extension project impacts the respondents' performance. The survey questionnaire has undergone face and content validation from experts in the field.

2.3 The Participants

The respondents of this study were randomly selected from the beneficiaries of the training workshop conducted. A survey questionnaire was used to obtain data from the respondents. The questionnaire was well structured with the following sections: Section 1: Basic Information, Section 2: Before and After Skills, Section 3: Application of Skills, Section 4: Further Training Needs. The questions

are based on the objectives of the program and these were stipulated in the Memorandum of Agreement (MOA).

2.4 Data-Gathering Procedure

After the proposal of this research was approved by the University, the researchers have written a letter to the LGU Cagayan de Oro to conduct the survey to the beneficiaries of the training workshop conducted. Immediately after the approval of the LGU Cagayan de Oro, the researchers have scheduled an onsite visit or online communication for the recipients to collect the necessary data needed in this study. Analyzing and interpreting data was followed after data gathering.

3. RESULTS AND DISCUSSIONS

Table 1. The Extent of Impact of Extension Project to Work Performance

Impact to Work Performance	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
The training brings positive attitude in employees			9.1	36.4	54.5%
The training increased your knowledge in relation to your job.			18.2	27.3	54.5
The trainers taught techniques to improve your skills in relation to performing your job.	9.1		9.1	27.3	54.5
The training enhanced your skills in performing your job/task.				45.5	54.5
The training increased the level of competency of the employee.				45.5	54.5
The training boost up the morale of the employees.			9.1	54.5	36.4
The training reduced the stress of the employees				54.5	45.5
The training contributed an increase in the performance and productivity due to the ability of the employees.	9.1			45.5	45.5
The training contributed to an increase in performance and productivity due to the enhanced competency of the employees.				54.5	45.5
The high morale of the employees resulted in a better performance.				54.5	45.5
The performance and productivity increased due to the job knowledge.		9.1		45.5	45.5
The training helped develop a positive attitude toward the job/task resulting in an increase in performance and productivity.		10		30	60
The training enhanced the performance and productivity of the employees as well as the organization.	9.1			36.4	54.5
The training reduced consumption of time and cost resulting to an increase in productivity and performance.				54.5	45.5

Table 1 above shows the extent of the impact of the extension project on to work performance of the respondents. The result showed that 54.5% strongly agreed that the training brings positive attitude in employees, however, 36.4% agreed and neutral of 9.1%. On the other hand, if the training increased their knowledge in relation to their job, there were 54.5% strongly agreed on this, 27.3% agreed and 18.2% neutral or undecided. There were 54.5% strongly agreed that the trainers taught techniques to improve their skills in relation to performing their job, 27.3% agreed, 9.1% neutral, 9.1% strongly disagree. On asking if the training enhanced their skills in performing their job/task., there were 54.5% strongly agreed on this while 45.5% have agreed.

The training increased the level of competency of the employees as 54.5% of respondents strongly agreed and 45.5% agreed. No one disagreed on this. Another impact of the training is that it boosts up the morale of the employees, 54.5% strongly agreed, 36.4% agreed, and 9.1% are on the neutral side. On the item, the training reduced the stress of the employees, there were 54.5% have strongly agreed and 45.5% have agreed. When we talked about if the training contributed an increase in the performance and productivity due to the ability of the employees, there were 54.5% strongly agreed, 45.5% agreed, 9.1% strongly disagree.

The training contributed an increase in the performance and productivity due to the enhanced competency of the employees, still, 54.5% strongly agreed and 45.5% agreed. Also, the high morale of the employees resulted in better performance, 54.5% strongly agreed and 45.5% agreed. The performance and productivity increased due to the job knowledge, 45.5% strongly agreed, 45.5% agreed, and 9.0% disagree. The training helped develop a positive attitude toward the job/task resulting in an increase in performance and productivity, there were 60% strongly agreed, 30% agreed, and 10% disagree. The training enhanced the performance and productivity of the employees as well as the organization, 54.5% strongly agreed, 36.4% agreed, and 9.1% strongly disagree. The training reduced consumption of time and cost resulting in an increase in productivity and performance, with 45.5% strongly agreeing and 54.5% agreeing.

4. CONCLUSIONS AND RECOMMENDATIONS

Based on the findings, the impact of the extension project is highly extent as the majority of the respondents agreed on these possible impacts as stated in the survey conducted. The said extension project has improved their work performance, skills, attitude, and accomplishments. It further developed the organization's performance and productivity resulting from the employee's positive attitude and skills that were developed due to this training conducted on them. The trainers may consider conducting training which will be participated in by one barangay at a time so that there will be more participants in each barangay. To get firmer findings, the researchers may conduct interviews and observations in enough time. There may be further workshops and training that would boost the computer skills level of the barangay staff and head of the office. The future researchers may also include the duration of the training be extended so that more time will be spent on the actual workshop of the training.

Acknowledgment

The researchers would like to express their immense remark of appreciation to the USTP Administration through the Research Office headed by Dr. Ismael Talili and Extension and Community Relations Office headed by Dr. Maria Teresa M. Fajardo for their approval and support to conduct this impact study. The research team would also like to thank Dr. Laila S. Lomibao, Dean of the College of Science and Technology Education and Dr. Dennis Tarepe, Dean of the College of Science and Education during the conduct of the study for their constant support and guidance in conducting this study.

5. REFERENCES

- [1] Updated Comprehensive Development Plan 2017-2019 Cagayan de Oro City. www.cagayandeor.gov.ph/phocadownloadpap/announcement/Updated_Comprehensive_Development_Plan_2017_2019_Cagayan_de_Oro_City.pdf
- [2] Refugio, C. (2003). STATISTICAL LITERACY AMONG BARANGAY OFFICIALS AND SENIOR HIGH SCHOOL STUDENTS: A UNIVERSITY OUTREACH PROGRAM. Researchgate.net
- [3] Reston, E. (2010). STATISTICAL LITERACY ASSESSMENT AND TRAINING OF GOVERNMENT PERSONNEL USING DATA FROM NATIONAL STATISTICS OFFICE: PHILIPPINE CONTEXT. International Association of Statistical Education (IASE)
- [4] Santiago, Jr., C. S., Ulanday, M.L.P., Centeno, Z. J. R., Bayla, M.C.D., (2020). ACCESS, SKILLS and CONSTRAINTS OF BARANGAY OFFICIALS TOWARDS THE USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT). Researchgate.net
- [5] Mohd Abas, M. K., Yahaya, R. A., & Din, M. S. F. (2019). Digital Literacy and its Relationship with Employee Performance in the 4IR. Journal of International Business, Economics and Entrepreneurship (JIBE), 4(2), 29-37.
- [6] Nassazi, A. (2013). EFFECTS OF TRAINING ON EMPLOYEE PERFORMANCE.: Evidence from Uganda (Doctoral dissertation, Theseus).