# CHALLENGES & WAY FORWARD OF THE COMPUTER LITERACY TRAINING PROGRAM FOR LOCAL GOVERNMENT EMPLOYEES IN OPOL, MISAMIS ORIENTAL, PHILIPPINES:

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**ABSTRACT:** On December 2017, a computer literacy training program was conducted by the USTP-CDO Extension and Community Relations Division and IT department for the employees of the municipality of Opol, Misamis Oriental, Philippines. The main objective of the training was to train their employees with the basics of computer operations and productivity software such as Microsoft Word, Microsoft Excel, Microsoft PowerPoint presentations as well as basic internet skills which are deemed very essential for their day to day work operations. In order to determine the impact of the computer literacy training program, a rapid impact assessment was conducted among selected participants who attended the said training. Survey evaluation questionnaires and focus group discussions (FGD) were conducted to collect the necessary data for analysis. Findings revealed that the majority of the participants gained computer literacy skills from the training but the FGD results conveyed that despite learning from the computer literacy training, implementation becomes a challenge because of the lack of computer facilities in their office and some of them are still using the manual methods of operations in their respective offices. Hence, it is suggested that in the next round of training, careful identification of participants should be based on those working with computers in their respective stations. LGU Opol also needs to address the computerization of its traditional operations. Furthermore, it is recommended to have longer continuous training to address retention and better application of the learned competencies.

Keywords: rapid impact assessment, computer literacy, computer literacy training program, local government employees,

extension work

## 1. INTRODUCTION

Computer training is an important factor in 21st-century workplaces and the rapid development of ICT requires a completely new set of skills related to technological literacy [1]. Many recent studies have investigated shifts in job demands as a result of evolving technology, with a focus on the high demand for skilled labor. People at present are shifting from manual processing to automation of processing of transactions from all government and non-government agencies. The paper and pen are now being replaced with office productivity tools such as word processing, spreadsheets, and others. Businesses and governments agencies are now trying to use computer applications to complete tasks in a lesser amount of time.

Lagon argued that most of the government agencies now are using computers in various offices to help them improve their services to their clients in a lesser period of time and to enhance revenue as well. With the advent of information technology, the demand of clients also increases in terms of time and efficiency of needed services. They would like to complete their transactions in hours or minutes rather than days. Government employees in the older generation did not have any computer experience during their college years. As a result, despite the fact that their office is equipped with technology, the workers are unable to use the available computers and other technological devices due to a lack of knowledge and skills. This is considered as one of the barriers to using the computer and electronic devices in the office [2].

Knowing how to use a computer and its software is known as being computer literate [3]. Everyone in the workplace, from the newest employee to the most senior executive, needs to be computer literate. Once a worker is computer literate, they have advantages in terms of promotion, productivity, and efficiency at work. However, there are limited opportunities for free computer skills pieces of training and oftentimes most of these are ICT-related training is paid for by the trainees, and funding from the employers might also be available.

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 Information Technology Department is empowered to design ICT skills training for the community.

The USTP CDO ECRD and IT department conducted a computer literacy training program for the employees of the municipality of Opol, Misamis Oriental, Philippines last December 17, 2017. The main objective of the training was to train the Opol Municipality employees with the basics of computer operations and productivity software such as Microsoft Word, Microsoft Excel, Microsoft PowerPoint presentations, and basic internet skills which are deemed essential for their day-to-day work operations in the municipality. The computer literacy training was conducted only once but it is hoped that the trainees were able to apply the computer literacy competencies in the job. Hence, it is on this premise that this rapid impact assessment was conducted to determine if the computer literacy training program conducted by USTP CDO ECRD & IT department significantly improved the LGU Opol municipality employee's workplace performance.

## 2. FRAMEWORK OF THE STUDY

The conduct of the computer literacy training program in the municipality of Opol, Misamis Oriental is presented in the following figure. The officials of LGU Opol are responsible for the identification of the target beneficiaries. The Computer Literacy program consists of the following modules: 1) Microsoft Word Processing 2) Microsoft Spreadsheet 3) Microsoft Powerpoint Presentation. The ultimate goal of this program is to help the employees of LGU Opol acquire basic knowledge and skills in computers and their operations and to acquire skills in productivity software. After the training, the beneficiaries were asked to fill out the evaluation form.



Figure 1. Conceptual Paradigm of the Rapid Impact Assessment.

The conduct of the rapid impact assessment of the computer literacy program was anchored by significant theories.

The first theory is based on Muzafer's (1958) Super Ordinate Target Theory, which divides goals into those that are more important and those that are less important. More important goals can only be accomplished if people from all walks of life are brought together and work together in unity to achieve results - this involves integrating their skills, energy, and resources. This principle clearly states that mutual goals can be accomplished by individual or group cooperation [4].

The second theory is based on Harbizon's (1973) Human Resources theory, which assumes that human beings are the nation's and any organization's most valuable assets. The study's assumption that faculty implementers would be more effective if they expand their time and talents to less fortunate recipients of extension activities is founded on this same principle. It was believed that this would boost their natural abilities and help them become more effective in their art, gainful employment, supplement their families' basic needs, and improve their social status [5].

Finally, the Theory of Change by Rogers (2014) in an impact evaluation provides support for the conduct of this impact assessment. This theory explains how activities are understood to produce a series of results that contribute to achieving the final intended impacts. It can be developed for any level of intervention, an event, a project, a program, a policy, a strategy or an organization. A theory of change can be developed for an intervention where objectives and activities can be identified and tightly planned beforehand or those changes and adapts in response to emerging issues and to decisions made by partners and other stakeholders. Sometimes the term is used generally to refer to any version of this process, including a results chain, which shows a series of boxes from inputs to outputs, outcomes, and impacts, or a log frame, which represents the same information in a matrix [6]. The present rapid impact assessment holds the idea that the training program produces changes 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

This section presents studies on a computer or digital literacy training programs conducted locally and internationally.

The study conducted by Lagon determined the computer literacy and job performance of government employees and officials in the Municipality of Calinog, Calinog, Iloilo, Philippines as a practice by the respondents. A descriptive type of research was utilized in the study. Results showed that respondents are skilled in computer operations skills, set up maintenance and troubleshooting, word processing, introductory desktop publishing, spreadsheet/graphing, databases networking, telecommunications but moderately skilled in media communication. They are average and high in different aspects of job performance. It means that in these aspects, there are still areas for improvement. This study is particularly related to this present study because the main objective was to determine the computer literacy and work performance of the government employees and it is similar to the present study, however, it is determined after the computer literacy training was conducted [2].

Mor, Laks & Hershkovitz also conducted a report on a study of readiness to work with computers among 54 unemployed women after participating in a unique, websupported training focused on computer skills and empowerment. Overall, the level of participants' readiness to work with computers was much higher at the end of the course than it was at its beginning. This insight might be useful in the present study as it is also hoped that the employees of LGU Opol are already skilled in using the computer after the computer literacy program was conducted [7].

Barrera & Lamprecht presents an appraisal on computer literacy in the workplace between managerial and floor workers. Further, it explores similarities and differences found in computer literacy levels between the American and the German manufacturing industry. They found out that in the United States computer literacy levels varied a lot. Some workers showed updated computer skills while the vast majority demonstrated knowledge gaps in general computer skills, file management, online communication, and information competency. Furthermore, education level, professional experience, and the length of employment differed a lot from that of the workers in Germany. Moreover, the short-term employability in the United States dismisses the possibility of continuous training to update workers" skills. In addition, years of education for most workers in the United States were lower than their counterparts in Germany [8].

Mohd Abas, Yahaya & Din 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 [9].

Nassazi 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. AbuShugair, Aqel & Abuseada (2015) reported that the computer literacy training program has a positive and good effect on computer skills enhancement on the staff of higher education [10].

The related studies mentioned earlier are relevant and related to the present study in terms of workers' digital literacy and the conduct of the computer literacy training programs for employees in different private and public entities and have shown significant improvements in their work performance. However, these studies are purely surveyed out considering the inputs of the employers as well as the variations of the competencies learned with respect to the participants' age and academic qualifications.

#### 4. METHODOLOGY

This study employed a mixed-method research design, specifically the convergent parallel design. In this design, the researcher collects quantitative and qualitative data concurrently, analyzes the two data sets separately, and mixes the two databases by merging the results during interpretation (and sometimes during data analysis). In the present study, the quantitative data will be derived from the survey questionnaire administered to the trainees of the computer literacy program and qualitative data will be collected from the conduct of the focus group discussion to the beneficiaries and the interview from their supervisors concerning their work performance after they are trained with the computer literacy program. This study was conducted at the municipality of Opol, Misamis Oriental where the computer literacy program was conducted. The respondents of this study were randomly selected from the 37 beneficiaries of the computer literacy training program conducted. A survey questionnaire was used to obtain data from the respondents. A focus group discussion (FGD) was conducted after they answered the administered survey questionnaires. The data collected from the survey were analyzed using descriptive statistics such as frequency, percentage, mean and standard deviation. The data derived from the FGD and interview was organized using thematic analysis.

#### 5. RESULTS AND FINDINGS



Figure 2: Computer Skills of Participants Before and After the Training

Figure 2 shows the comparison of the participant's basic computer skills acquired before and after the computer literacy training was conducted. It can be observed that a higher number of participants developed basic computer skills after the computer literacy training was conducted by USTP compared to prior to the training. In particular, basic computer skills such as creating a letter as well as tables using word application and formatting cells, rows and columns, and chart manipulations using Excel spreadsheet have been developed by most participants.

#### FOCUS GROUP DISCUSSION (FGD) RESULTS

In the FGD conducted by the researchers and the participants of the Computer Literacy Training, major themes arise from their experiences during and after the training.

#### Theme 1: The time allotted for the training was insufficient.

Based on the participant's responses, they argued that the one (1) day training was not enough for them to have better retention of the computer and internet skills they learned from the training. They suggested that if there are follow-up training in the future, it should be conducted for a longer duration.

Theme 2: The application of the learned competencies was not successful because they are not using computers in their assigned office

This is quite sad because the majority of the participants commented that they have not applied what they have learned from the training because they are not actually using computers in their respective offices. The LGU still adopts the manual processing of its day-to-day operations. They have not yet shifted to online transactions.

Theme 3: The LGU lacks computer resources.

Despite the efforts of other agencies to help upgrade their employees, it is sad to note that computer resources in the municipality is scarce. Only those who really need computers are issued with computers such as those cashiers, auditors and among others. Hence, they suggested that in the next training, proper selection of participants who are actually using computers should be given priority.

Theme 4: USTP is the only government agency that conducted a Computer Literacy Training

Although the participants have problems with the application of their learned computer skills, they are very thankful to USTP because it is the first time they are trained to improve their computer literacy skills.

#### 5. CONCLUSIONS & RECOMMENDATIONS

The one-day computer literacy training was successful, however, implementation and application becomes a big challenge for some of the participants because of the lack of computer facilities in their office. Some of the participants are still using the manual methods of operations in their respective offices. Hence, it is suggested that in the next round of training, careful identification of participants should be based on those working with computers in their respective stations. LGU Opol also needs to address the computerization of its traditional operations. Furthermore, it is recommended to have longer continuous training to address retention and better application of the learned competencies.

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### REFERENCES

- [1] Voogt, J., & Roblin, N. P. (2012). A comparative analysis of international frameworks for 21st-century competencies: Implications for national curriculum policies. Journal of curriculum studies, 44(3), 299-321.
- [2] Lagon, R.M.C. (2019). Computer Literacy and Job Performance of Government Employees and Officials in the Municipality Of Calinog. International Journal of Advanced Research, Vol. 7. No. 8.
- [3] Childers, S. (2003). Computer literacy: Necessity or buzzword?. Information Technology and Libraries, 22(3), 100.
- [4] Sherif, M. (1958). Superordinate goals in the reduction of intergroup conflict. American Journal of Sociology, 63(4), 349-356.

- [5] Harbison, F. H. (1973). Human resources as the wealth of nations. New York: Oxford University Press.
- [6] Rogers, P. (2014). Theory of change. Methodological briefs: impact evaluation, 2(16), 1-14.
- [7] Mor, D., Laks, H., & Hershkovitz, A. (2016). Computer skills training and readiness to work with computers. Interdisciplinary Journal of e-Skills and Lifelong Learning, 12, 095-112.
- [8] Barrera, J. C., & Lamprecht, A. (2012). Examination of Computer Literacy Competence in the Workplace: The Case for the American and German Manufacturing Industry. American International Journal of Contemporary Research, 2(6), 23-47.
- [9] 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.
- [10] Nassazi, A. (2013). EFFECTS OF TRAINING ON EMPLOYEE PERFORMANCE: Evidence from Uganda (Doctoral dissertation, Theseus).