RESEARCH CAPABILITY TRAINING FOR EL SALVADOR CITY DIVISION TEACHERS, MISAMIS ORIENTAL, PHILIPPINES: AN IMPACT STUDY

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ABSTRACT: *Extension programs are implemented to help elevate the lives of the people in the community. University of Science and Technology of Southern Philippines through the College of Science and Technology Education conducted a research capability training to Department of Education, El Salvador City Division Teachers last July 2020. The main objective of the program is to empower teachers by equipping them with the necessary skills for them to be capacitated in conducting research. To determine the impact of this extension program, this impact study was conducted with the select participants who participated in the training. A survey questionnaire and focus group discussion were employed to collect the necessary data for analysis. The results show that the participants were able to learn, acquire skills, and gain knowledge in conducting research. Some participants were able to produce research papers after the training. However, the research output among teachers after the training was not high due to several reasons such as heavy workload, funding support, lack of motivation, and lack of relevant experience. Thus, it is recommended that the school administrations should provide research incentives to encourage the active participation of the teachers in research. It is also suggested that future trainers' training will be conducted to the teachers to strengthen the skills and to create mentoring system among schools in DepEd El Salvador.*

Keywords: extension program, research capability training, public school teachers, impact study

1. INTRODUCTION

Extension services help in promoting the quality of living of the surrounding community by enhancing their productivity through the dissemination and application of skills and technologies. This could be done through a skills training program that will allow the people in the community to acquire the necessary skills and knowledge in technical courses that will help them adequately handle everyday requirements, their livelihood, and employment opportunities. Extension and community involvement is the key result area that makes the community feel the presence of an institution and serve as the link between the University and the community. It is the avenue where higher educational institutions extend their expertise in line with their programs. It shares the transfer of technology and other extension programs which would assist to alleviate the economic status of its beneficiaries [7].

One of the University's extension projects conducted by the College of Science and Technology Education (CSTE) is the capability training for El Salvador Division Teachers about Research in the New Normal. The main goals of this project were to equip the Department of Education (DepEd) El Salvador Teachers on essential research skills and capacitate them in effectively conducting research. The CSTE team consists of five different Departments namely: Department of Technician Teacher Education (DTTEd), Department of Special Education (DSpEd), Department of Teaching Languages (DTL), Department of Science Educations (DSEd), and Department of Mathematics Education (DMEd). There were seven (7) faculty members from DTTEd, eight (8) from DSEd, ten (10) from DMEd, four (4) from DTL, and four (4) from DSpEd, who served as speakers and facilitators. Graduate students (MTTE, MA TESL, MATSPED, MST Math, MS SciEd, MST Physics, Ph.D. MathEd, and Ph.D. SciEd) were also involved in this project as facilitators. And one foreign speaker from Universiti Sains Malaysia. There were 419 teachers from primary and secondary schools from El Salvador who were able to participate in the 5-phase program in 2 months (see Fig. 1). These phases comprised discussions and workshops of topics from finding research topics, organizing literature review, designing research, data gathering and data analysis, writing and reporting research outputs, and culminating it by presenting their research concept outputs by group according to their assigned focused subject area. The participants of the research training are expected to write research articles to publish them in refereed journals. In the recent 2021 Dep Ed Division Research Conference Plenary, 13 groups were able to present full-blown research papers coming from El Salvador teachers. These 42 teachers that we're able to present are among the 419 Dep Ed El Salvador teachers who have participated in the capability training on research.

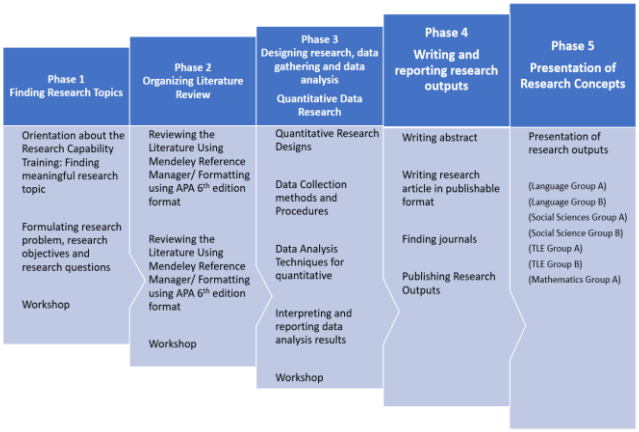

Figure 1: 5 Phase Program of the Capability Training for El Salvador Teachers

Evaluation is at the center of all improvements whether we talk about the quality of education or the effective working of a school. Everywhere policymakers and researchers emphasize the need for evaluation of schools that helps in the quality control, monitoring of quality, quality assurance, and quality development [2]. It is for this reason that this research is undertaken to assess the impact by measuring the effectiveness of the extension project conducted by USTP – CSTE to DepEd El Salvador teachers.

Over the years USTP's Extension and Community Services Office has conducted numerous extension programs together with the different colleges in helping improve the quality of life to its stakeholders. By evaluating the projects

implemented, enables the implementers to learn how to optimize for success and discover the story behind the results of the project, and paves the way to project improvements [10].

The main goal of this study is to evaluate the impact of the extension project conducted by the College of Science and Technology Education of the University of Science and Technology of Southern Philippines rendered to the public-school teachers of DepEd El Salvador City Division.

2. FRAMEWORK OF THE STUDY

The Input-Output (IPO) Model is a functional graph that identifies the inputs, outputs, and required processing tasks required to transform inputs into outputs. The independent variables or inputs are the profile of the El Salvador teachers who have joined the Capability training program as well as the previous data or performance of the research outputs produced in the previous years before the training. The research process will then be administering the questionnaire and conducting interviews of the respondents, then the researchers will tabulate the respondents' data and will provide a statistical analysis of the data and its interpretation. In this research, it is expected that after conducting the impact study, the research output is the assessed level of effectiveness of the Capability Training in writing and submitting research proposals.

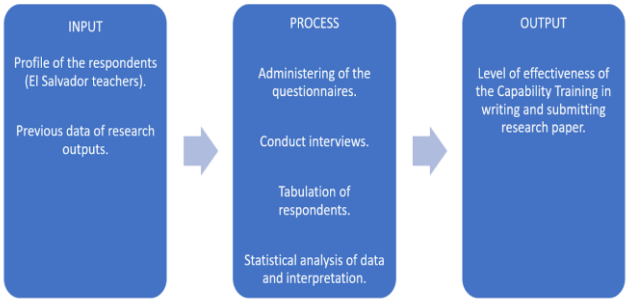

Figure 2: IPO Model of the Impact Study

3. LITERATURE REVIEW

Research is defined as creative and systematic work undertaken to increase knowledge [1]. It commonly involves collecting, organizing, and analyzing information to increase understanding of a topic or issue. While its primary purpose is for documentation, discovery, interpretation, and development. Research has often been thought of as an activity carried out by specialists. People who can control a study, provide results and then make a claim of originality over the findings.

Often said, good teachers have always been good researchers. Any teacher who has asked a question deemed essential to practice and used a systematic method to find an answer has engaged in a form of research. However, some teachers face problems when doing research. In the study of Zhou, he enumerates that teachers may misunderstand the research, mistrust university researchers, lack time to conduct research, lack of basic knowledge or research methodology, and frustration during the process of knowledge [9].

A similar study of Ulla, et al cited teachers' perception and motivations, challenges, and needs of 50 teachers in Agusan del Norte, Philippines, concerning doing research. Findings revealed that teacher-respondents had positive perceptions towards doing research and its benefits to their teaching practice and students' learning process. While job promotions are the motivating factors. Thus, job promotion is the motivating factor why teachers did research. However, reported challenges such as lack of research knowledge and skills, heavy teaching loads, and lack of financial support from the schools obstructed them from doing it. Attending and participating in research training, receiving research incentives, and having lighter teaching was what the teachers perceived they needed to do research [8].

While in the study of Gennis, et al, students were exposed to university researchers in the classroom and concluded that this intervention has promoted research interest in students. Several barriers to research involvement were noted, including competitiveness, lack of interest, lack of knowledge, and time constraints [4].

Students and teachers have common barriers toward research involvement. Enhancing the undergraduate curriculum by integrating university researchers into the classroom is a potentially innovative way to introduce and promote research interests in students while being involved in research training of teachers may result in significantly increasing the research interest among teachers.

Additionally, the Philippine extension services have been in existence since the time of the Spanish period but were organized into a national system only in 1952 (Mabutas and Paguirigan, 1978). Since then, it has undergone several reorganizations (BNFI 1983). The most recent was in 1993 when the National Bureau of Agricultural Extension was devolved to the Local Government Units (LGUs) throughout the country. The Department of Agriculture (DAR), the Department of Environment and Natural Resources (DENR), the private and state universities followed to undertake special extension programs in all parts of the country [3].

University of Science and Technology of Southern Philippines has been involved in the extension work long before it was established as a State University. Since then, they have conducted numerous extension programs that help improve the quality of life to its stakeholders as well as providing service to people, groups, and communities inside and outside the University.

4. METHODOLOGY

The study used both quantitative and qualitative research designs. Researchers collected quantitative data, through a survey questionnaire, from the capability training participants. For qualitative data, responses from the conducted interview and focus group discussion (FGD) were recorded. Matching the results from the quantitative analysis to qualitative analysis further strengthens the claim. This study was conducted at the Department of Education, Division of El Salvador City. Teachers in Elementary, Secondary and some personnel were the participants of the capability training. The respondents of this study were randomly selected from the 419 beneficiaries of the capability training conducted. A survey questionnaire was used to obtain data from the respondents. The questions were based on the objectives of the extension program and the study. Interviews and focus group discussions (FGD) were conducted to select participants and their immediate supervisors. With this, the researchers may be able to see that the improvement of research outputs of the participants is due to the capability training conducted by the CSTE team. The data collected from the survey were analyzed using descriptive statistics such as frequency, percentage, mean and

standard deviation. Data gathered from interviews and FGD was organized through thematic analysis to support the quantitative analysis.

5. RESULTS AND FINDINGS

Figures below show the before and after research skills of the respondents, before and after the capability training conducted.

Figure 3a: Formulating a research problem

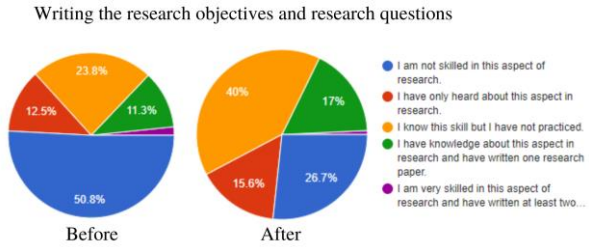

Figure 3b: Writing the research objectives

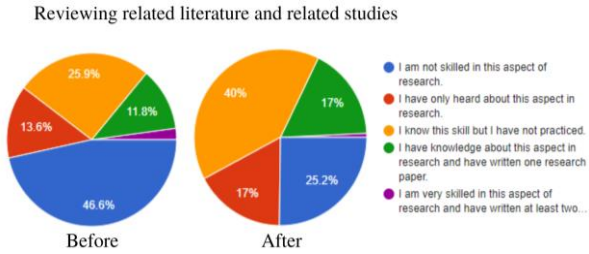

Figure 3c: Reviewing related literature and related studies

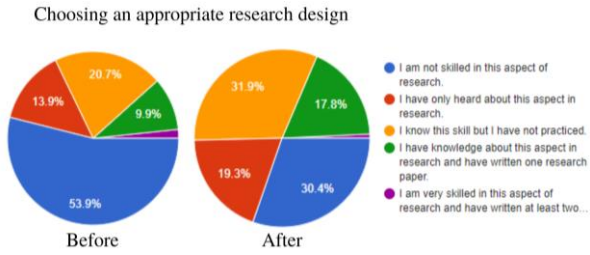

Figure 3d: Choosing an appropriate research design

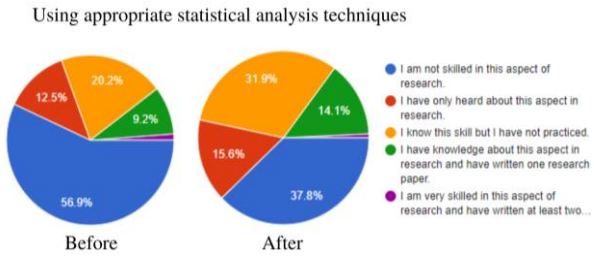

Figure 3e: Using appropriate statistical analysis techniques

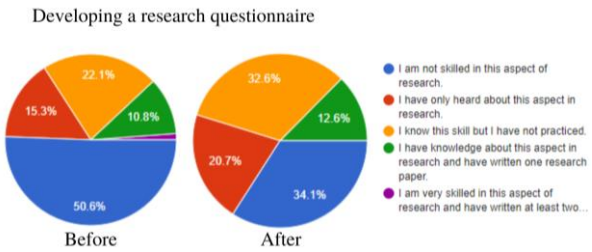

Figure 3f: Developing a research questionnaire

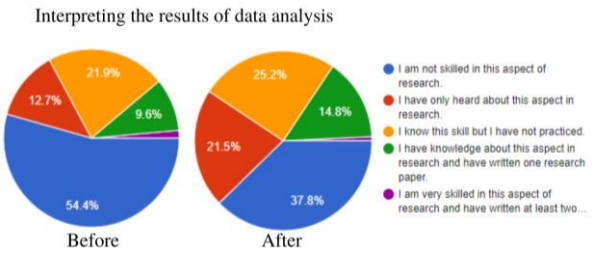

Figure 3g: Interpreting the results of data analysis

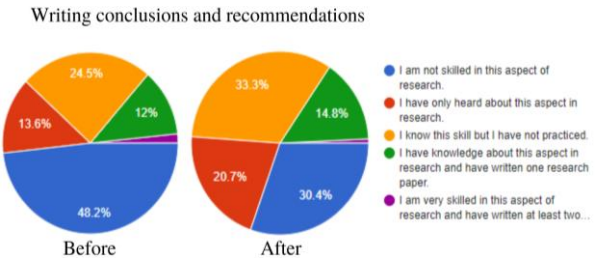

Figure 3h: Writing conclusions and recommendations

Figure 3a, 3b, 3c, 3d, 3e, 3f, 3g, and 3h are the skills "formulating research problem", "writing the research objectives", "reviewing related literature", choosing an appropriate research design", "using appropriate statistical analysis techniques", "developing a research questionnaire", "interpreting the results of data analysis", and "writing conclusions and recommendations", respectively. As shown, there is a significant decrease in "I am not skilled in this aspect of research" which implies that respondents were able to learn and acquire the skills from the training. Moreover, there is an increase in "I have knowledge about this aspect and have written one research paper" and "I know this skill but I have not practiced". This may imply that some of the respondents were able to apply and write research papers however, some were not able to write for some reasons reflected in FGD.

Focus Group Discussion (FGD) Results

In the FGD conducted with the participants, the following themes were transpired based on their experiences.

Theme 1: Research Culture of DepEd El Salvador City Division before and after the training

Based on the responses, there is a significant increase in terms of the number of submitted proposals and paper presentations after the training. Research papers undergo a process set by the Division following the criteria issued from the Regional office. The administrators also motivated them to write papers and publish them in their local research journal called The GEM Journal. Aside from encouraging them to publish in an international refereed journal. Research fundings are also available depending on the availability of funds. As part of the research incentives, the administrator is

open to the possibility of disengaging teachers who are engaged in research. With this training, the Division is now creating a research-based culture in formulating new interventions, guidelines, and policies for the betterment not only in the classroom but the entire division as a whole.

Theme 2: Challenges encountered

Since the mode of delivery during the training was online, this has been a challenge for both the implementer and the participants. Internet connectivity is depended on the type of subscription a participant has and the location. Participants were having a hard time accessing the platform used by the implementer. Time constraint is also one of the problems due to simultaneous webinars. Even after the training, participants were not able to write a paper due to heavy workload, funding support, lack of motivation, and lack of relevant experience.

Theme 3: Future endeavors

Despite the challenges, the participants of DepEd El Salvador City Division are truly grateful for the help extended to them. They were able to learn so many things and look forward to more undertakings. They suggested having a trainers' training. This will create a mentoring system for each school in the division to help teachers write research papers especially those who are new to this endeavor. The administrator, with the participants' acquired knowledge and skills, is looking forward to establishing a research-based culture in their division as a basis for their interventions and policies.

5. CONCLUSIONS & RECOMMENDATIONS

Based on the results presented, it can be observed that the research capability training conducted by USTP – CSTE to DepEd El Salvador teachers was a success. The training has satisfactorily achieved its objective in its extension service in addressing the needs and problems of the DepEd El Salvador in terms of research. It also shows that a high number of participants acquired the knowledge in writing a research paper, however, the number of research output among teachers after the training was not high due to several reasons such as heavy workload, funding support, and lack of motivation. Thus, it is recommended that the school administrations should provide research incentives to encourage the active participation of the teachers in research. It is also suggested that future trainers' training will be conducted to the teachers to strengthen the skills and to create mentoring system among schools in DepEd El Salvador.

Acknowledgment

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