EFFECTS OF RESULT-BASED CAPABILITY BUILDING PROGRAM ONTHE RESEARCH COMPETENCY, QUALITY AND PRODUCTIVITYOF PUBLIC HIGH SCHOOL TEACHERS

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Abstract

In the new rationalized structure of the Department of Education (DepEd), programs, projects and activities are expected to be result-based. In the past years, capability building program specifically on research focused only on physical targets as the success indicator. Hence, the expected result in the capability program are long-term and impactful primarily on the competencies, quality and sustainability. This study was conducted to determine the impact of result-based research capability building program on the competency, quality and productivity among 78 public junior high school teachers in DepEd-National Capital Region. An adapted research instrument was used to measure the research competency of the participants before and after the third phase of the program. After one month, their outputs were analyzed using the adapted rubrics for action research proposals. Furthermore, the research competencies of participants increased from low to high after the training. It also revealed using the t-test that there were significant differences in the research competency of the participants. The assessed action research proposals were rated "satisfactory" in terms of quality. Consequently, the

research productivity in terms of physical targets got 100% because of the proposals collaboratively crafted and submitted by the participants.Therefore, the program was effective and it produced quality research proposals in the second revision. Finally, this study recommends that teachers must be empowered by the necessary competency in conducting action research with the mechanism of coaching, mentoring and consultation with the school heads and experts from partner Higher Education Institutions. This participative approach in research ensures that the effectiveness and impact of the program are geared towards the attainment of DepEd Vision, Mission and Objectives.

Keywords

Result-Based, Research Capability Building Program, Action Research, Quality, Productivity, Mixed-Method Design, Public School Teachers, Department Of Education

1. Introduction

As Regional Education Program Supervisor in Policy, Planning and Research Division (PPRD) in the Department of Education, National Capital Region (NCR), the researcher has encountered a number of recurring problems that need utmost attention. Based on the inventory of researches conducted from 2010-2014, only two out of ten teachers in school produced research.

The researcher also discovered during his technical assistance activity that 90% of teachers per school were not adept in conducting action research. Moreover, the 10% teachers who conducted individual action research instead of collaborative type in 2015. This is alarming because research is part of their responsibility as stated in the Republic Act 9155 (Wwwgovph,2017). It is also one of the critical performance indicators in the new Result-based Performance Management System (RPMS). Furthermore, collaborative research is a perfect opportunity for the school heads and teachers to mentor their colleagues and share their transferrable skills.

Among the three problems specified via GAP ANALYSIS, the researcher considers the 90% of teachers who were not adept in conducting action research as the most important, the most urgent, the most relevant and the most doable. In order to diagnose the gap associated with the public high school teachers, the immediate causes, underlying causes and root causes were analyzed using the CHALLENGES MAP (Macaspac et.al, 2014).

The immediate causes are poor instructional leadership specifically in mentoring in conducting action research, lack of school-based research policy, and weak research culture. Attributed to these causes are too much responsibility in school, insufficient knowledge, skills and attitude in conducting action research, no specific Department of Education Memorandum from the Division, no guidelines on incentives, credits and appointments, and lack of motivation among teachers. Consequently, the root causes are too many activities in school, incapable of assisting and monitoring teachers, lack of rules in conducting research in school level, no one is in-charge to manage research proposals and output, no training conducted and lack of incentives and credits.

There is a saying that "there is always an opportunity in the middle of difficulty". That is why the researcher rephrase the challenges into positive desirable result using an OPPORTUNITY MAP to identify the different options to solve the problem and come up with an appropriate and justifiable action plan for the study (Macaspac,et. al, 2014).

In order to choose the possible solution, the researcher used a DECISION MAKING MATRIX. First, the researcher looked into the six possible solutions from the OPPORTUNITY MAP and generated decision criteria. The highest total in Decision Making Matrix is the capability building of teachers on conducting research. This was perceived to be the most prioritized, most needed, most significant, most appropriate and most timely to improve the culture and productivity of research in the Region.

Based on the inventory of Regional Office, only few researches were conducted related to the improvement of students' academic performance. This prompted the researcher to propose the Result-based Capability Building Program on Research. This program aims to strengthen the research culture, competency, productivity, quality and dissemination and utilization of research in the region. The first stage of the program is the conduct of research competency that needs assessment to determine what went well, what went wrong and what needs to be improved. The administrators and school heads are also expected to maximize the use of this tool in order to identify potential members of the research committee. The second phase of the project is reconstituting research committees from the Regional to the School level. Hence, the roles, responsibilities and research activities were contextualized from the DepEd Order No. 43 Series of 2015, also known as the Revised Guidelines on Basic Education Research Fund. After the assessment of competency, the seminar-workshop on action research was designed. It was

divided into clusters and one of these is the capability building on action research for public high school teachers. These strategies, processes and preliminary data gathered led the researcher to study the impact of result-based research capability training program on the research competency, quality and productivity of selected public high school teachers in DepEd,NCR.

1.1 Research Questions

This study sought to answer the following questions:

1. How do the participants assess their knowledge, skills, attitudes in conducting action research before and after the capability building activity?

2. Is there a significant difference between the assessment of the participants in their knowledge , skills , attitude before and after the capability building program?

3. How do the participants assess the quality and productivity of action research proposals?

4. What are the challenges encountered by the participants before, during and after the training on action research?

5. How may the findings of the study be utilized towards continuous quality improvement of the particpants' research competency and production of quality outputs?

1.2 Hypothesis

Null Hypothesis

There are no significant differences in the participants' knowledge, skills, and attitude in conducting action research before and after the result-based capability building program.

1.3 Scope and Limitations of the Study

This study included the 78 public junior high school teachers representing all learning areas and grade level in a selected division in the National Capital Region. It focused on the impact of the third stage of the result-based research capability building program on the knowledge, skills, attitude ,productivity and quality of research proposal outputs of teachers.

For the measurement of quality and productivity, only those action research proposals with an average score of 60 points after two revisions were counted.Furthermore, this study was conducted from September 2, 2015 to November 28, 2015.

1.4 Theoretical Framework

This study was anchor on Donald Kirkpatrick's Four Level Training Evaluation Model. This theory suggests the four levels of evaluating a training program such as Level 1 for Reaction, Level 2 for Learning 3 for Behavior and Level 4 Results. For the first level which is REACTION, it answers the question to what degree the participants react favorably to the training. In terms of the second level which is LEARNING, it answers the question to what degree participants acquire the intended knowledge, skills, attitudes, confidence and commitment based on their participation in a training event. Moreover, the third level which is BEHAVIOR answers the question to what degree the participants apply what they learned during training. Finally, the fourth level which is the RESULTS answers the question to what degree targeted outcomes occur as a result of the training event and subsequent reinforcement. In this study, the first and second statement of the problem and the three measures of impact such as research competency, quality and productivity were derived.

2. Methods And Instruments

This research used the descriptive evaluative, documentary analysis and reflective interview method (Sagor,2011). The design was appropriate for this action research to collect data from the participants in order to determine their knowledge, skills and attitude in conducting action research before and after the capability building. Consequently, documents were used to verify the research proposals produced by the participants to describe the quality and productivity. Finally, an interview was conducted to determine their challenges met before, during and after the training including the process of developing their action research proposal.

2.1 Work Plan

The action plan for this research was designed based on the approved program proposal on capability training guidelines as validated by selected Regional and Division supervisors.

During the PRE-IMPLEMENTATION phase, the participants' knowledge , skills and attitudes were self-assessed using action research proposal competency assessment tool. The result of the pre-assessment was used as guide in the design of the 5-day training.

In the IMPLEMENTATION phase of the training, important activities were undertaken based on the capability training matrix for five days. Then, the activities were also properly

documented including the workshop, critiquing of the title, research questions, methods, and sampling design.

For the POST-IMPLEMENTATION phase, the researcher monitored and facilitated the post-assessment of the training. Interview was also conducted to identify the challenges encountered by the participants in crafting their proposal. In terms of data analysis, the researcher used the weighted mean of the respondents' assessment of their knowledge, skills and attitude on action research before and after the training. Consequently, t-test of correlated samples was used to find any significant difference.

2.2 Research Instrument

The researcher utilized three validated research instruments for data collection:

1. Researcher-made and Validated Assessment tool – Action Research Proposal Competency Asessment Tool which is composed of three major criteria: (Basic knowledge, skills, and attitude in conducting action research). Cronbach's alpha (.89)

2. Reflective Interview questions – What went well? What went wrong? What needs to be improved? What is the major challenge that you encountered in conducting action research? How did you overcome these challenges (Sagor,2011)?

3. Action Research Proposal Paper Rubrics adapted from Luzon Research Conference – this tool will help in assessing and analyzing the quality and acceptability of the research proposal.Cronbach's Alpha (.91)

3. Results And Discussions

3.1 Effect of the Program on the Action Research Competency of the Participants

The researcher administered the assessment tool to 78 teachers from which pertinent data were collected. After evaluating these data, the appropriate statistical tests were applied.

Table 1 presents the summary of the pre and post-assessment on research competency of the participants. As shown in table 1, there is an improvement in the KSA in conducting action research before and after the training. In knowledge, there is an increase in their mean score from 2.13 with a descriptive rating of *Low Competency* to 3.10 which means *High competency*. For the skills it increased from 1.20 describe as *Very Low* to 2.19which is described as *Low competency*. Furthermore, their attitude towards research also improved from 2.21 described as

Low competency to 3.42 *High competency*. Finally, there is an increase in the overall mean from 1.85 described as *Low competency* to 32.90 which is described as *High competency.*

Table 1: *Summary of the research competency of the participants*

CRITERIA		Pre-assessment	Interpretation	Post-assessment	Interpretation
1	Knowledge	2.13	Low	3.10	High
2	Skills	1.20	Very Low	2.19	Low
3	Attitude	2.21	Low	3.42	High
	Grand Mean	1.85	Low	2.90	High

Legend: 0.50-1.49-Very Low, 1.50-2.49-Low, 2.50-3.49-High, 3.50-4.00- Very High

Test of significant difference in the research competency of the participants before and after the training is presented in table 2.The use of t-test correlated samples on the survey scores before and after the conduct of the training among master teachers revealed the rejection of the null hypothesis. This was based on the t-test computed values that were higher than the critical values at both .05 (t=2.01), as follows:

For the level of knowledge in conducting action research, the t-test value of -13.87 is lower than the critical value of 2.01. The p-value was also lower than 0.05 level of significance. This indicates that the null hypothesis was rejected. It means that there is a significant difference in the participants' level of knowledge in action research before and after the implementation of intensive training.

For the self-assessed basic skills in conducting action research, the t-test value of -16.14 is lower than the critical value of 2.01. The p-value is also lower than .05 level of significance. This indicates that the null hypothesis was rejected. It means that there is a significant difference in the participants' basic skills in action research before and after the implementation of intensive training.

For their attitude towards conducting action research, the t-test value of -11.50 is lower than the critical value of 2.01. The p-value is also lower than .05 level of significance. This indicates that the null hypothesis was rejected. It means that there is a significant difference in

the participants' attitude towards conducting action research before and after the intensive training. In this case there is a tendency for all the three indicators to increase because of the monitoring of the KSA of participants as they develop their action research proposal. One of the best practices of supervisor in this research are the use of self-assessment, small-group discussion, consultation, peer-review and critiquing during the workshop where the participants were allowed to verify, clarify and improve what they have started.

Table 2: *Differences in the Research Competency of the Participants before and after the Capability Building Program*

	CRITERIA	t-test	p-value	Decision	Conclusion
1	Knowledge	-13.87	0.016	Reject Ho	There is a Significant Difference
2	Skills	-16.14	0.023	Reject Ho	There is a Significant Difference
3	Attitude	-11.50	0.033	Reject Ho	There is a Significant Difference

3.2 Productivity and Quality of Participants' Action Research Proposals

In terms of productivity, 100% of the participants were able to produce action research in satisfactory level. This means that there was already an established baseline as to what the participants had achieved at the end of the training.

Table 3 presents the quality of the research proposals of the participants. The highest indicator with the interpretation of *Very Satisfactory* belongs to *the local and sampling of the study*. The lowest rating was the *clarity of expression* with a weighted mean score of 77.83 which is describeas *Needs Improvement*. Moreover, the overall mean of the research proposals is 82.60 with the interpretation of *Satisfatory*.

Table 3: *Quality of Action Research Proposals of the Participants*

	Indicators	Mean Score	Interpretation
1	Context and Rationale	83.02	Satisfactory
2	Review of Related Literature	78.10	Needs Improvement
3	Research Questions	79.12	Needs Improvement
4	Scope and Limitations	91.55	Very Satisfactory
5	Research Design	72.34	Needs Improvement
6	Locale and Sampling	92.10	Very Satisfactory
7	Data Collection	91.88	Very Satisfactory
8	Plan for Data Analysis	91.60	Very Satisfactory
9	Workplan	88.10	Satisfactory
10	Cost Estimates	86.12	Satisfactory
11	Ethical Issues	76.03	Needs Improvement
12	Referencing	82.67	Satisfactory
13	Clarity of Expression	70.08	Needs Improvement
14	Format and Style	73.77	Needs Improvement
	Grand Mean	82.60	Satisfactory

Legend: Very Satisfactory = 91-100, Satisfactory=81-90, Needs Improvement, 71-80

3.3 Challenges Encountered by the Participants in Developing their Action Research Proposals

The participants were also asked to identify the challenges that they encountered in developing their action research. First is the availability of reference materials that are updated and contained the information needed. In this case, the majority of the participants depended on few on-line sources to view related literature and findings of other researchers. Next to resource materials is the time given to them to reflect and think of other gaps in their research by reviewing the data available for them to analyze. Funding is also one of their problems. Some of them were doubtful if the school would support them financially in case they were in the implementation stage of the work plan. With this notion, teachers must be motivated to conduct research by assuring them that they would be supported by the school financially with their work plan. Some schools and divisions are receiving support from Local Government Units, Government and Non Government Organizations. In 2015,the Revised Guidelines for Basic

Education Research Fund was amended with an allotment of thirty thousand pesos per approved research in the school level and one hundred thousand pesos in the division level.

3.4 Utilization of the Research Findings

The findings of the study can be used towards continuous quality improvement and strengthening the monitoring system by:

1. Inclusion of the clarity of expression in the action research workshop.

2. Following- up the needs improvement in this research like, format and style, and clarity of expressions. Intervention must be proposed by integrating related activity in Teacher Quality Circle and Professional Learning Community.

3. Making the members of the School/ Division and Region Research Committee available for consultation related to action research of teachers.

4. Motivating the subordinates of the Chiefs and School that qualified proposals will be given top priority for funding.

5. Exempting teacher-researchers from ancillary and other responsibilities in school if they are in the process of accomplishing their action research, thesis writing

and dissertation writing.

4. Conclusions and Recommendations

The researcher concludes that the result-based research capability building program has improved the research competency, quality and productivity of the participants. The training provided them the necessary knowledge, skills and attitudes in line with the standards set by Department of Education.Finally, it helped them not only carry out the priority gaps of their respective divisions, but also validate their action research proposals.

Therefore, teachers must be equipped with the necessary competencies in order for them to produce a quality and more responsive action research. It is also suggested that the Chiefs and School Heads may prioritize action research in the allotment of budget in order to avoid the out-of-pocket spending of public school teachers. Lastly, school heads should strengthen their research culture by collaborating, coaching, mentoring, consulting and inviting experts from partner institutions and agencies for technical assistance and funding.

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