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# Teachers' Research Writing Competency: Basis for Salik-Suri Program Framework

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***Abstract*—** Research writing in the Philippines becomes more prominent because the Department of Education are encouraging its teachers to make their own research studies. However, many of them are reluctant to start a research because of many factors such as busy schedule, lack of training, and anxiousness. This study aimed to measure the research competency level of the teachers. This could lead in crafting the appropriate program that would potentially address the teachers' needs in terms of technical writing. This utilized comparative research design and used survey questionnaire in gathering the necessary data. The study revealed that most of the teachers had moderate and low mastery levels in different aspects of research writing. This also showed that sex and age groups were not indicators of the teachers' research competencies. However, new teachers were found to have a higher mastery level in research.

***Keywords*—** Department of Education, research competency, research writing, Salik-Suri, teachers

## INTRODUCTION

Research has been viewed as intimidating and scary by most people, overlooking the importance it holds. Research findings are used as bases for decision-making, improvement of teaching practices and management.

Research is done to have a better understanding of subject by collecting and analyzing data (Creswell, 2008) using the appropriate research methods set by certain fields or discipline (hampshire.edu, 2022). Research is indeed important as Rahman (2022) stated that it can lead to the progress of society (Rahman, 2021). This made the world move forward and to discover; without it, humans will be not knowledgeable and will not have things that they are using now (Simboli, 2022). Despite its obvious significance, students, even teachers, seem to struggle in this subject area. It is difficult for them because this requires some challenging tasks such as reading, interpreting, analyzing, reconstructing of research questions, and revising (Passanisi & Peters, 2013).

Though teachers are exposed to educational field and being subjects of studies, most of them are not involved in research writing (Kelleher & Whitman, 2017). Ulla, Barrera, and Acompanado (2017) reported in their study that teachers knew the positive side of doing research for them and their students. However, they were hindered by some concerns such as lack of research knowledge and skills, heavy teaching loads, and lack of financial support from the schools. Some of the importance of educational research presented in the study of Basu (2020) were bridging the gap to improve teaching-learning process, behavior adaptation to the environment, professional development, policy making, and dealing with students, guardians, and other stakeholders. This research really shows the importance that the teachers will develop their research writing competency and skills to understand things that are happening around them and contribute to existing problems that they are facing.

Various opportunities are given to teachers to engage in critically reflective activities about their teaching practice. With vast changes in educational systems, there is a need for teachers, administrators, and school systems to become involved in professional development activities which includes undertaking action research studies (Hine, 2013).

Nowadays, the Department of Education (DepEd) is highly encouraging the teachers to do research that will address their current needs in classroom and school set-up. With the DO 13 s. 2015 (Establishment of a Policy Development Process at the Department of Education), a systematic manner of promoting evidence-based policy formulation was created. Meanwhile DO No. 43 s. 2015 (Revised Guidelines for the Basic Education Research Fund (BERF) and DO No. 4, s. 2016 - Amendment to DepEd Oder No. 43, S. 2015 (Revised Guidelines for the Basic Education Research Fund) aimed to provide financial support to the conduct of research studies and focused on the use of the department's research fund and has since been initially made grants available with the issuance of DO 24, s. 2010 (Basic Education Research Fund).

Salik-Suri is one of the DepEd Cavite's 7 Banner Programs. The Division's Salik-Suri Program aimed for the development of research studies about school governance and curriculum implementation from various essential themes included in the department's Basic Education Sector Agenda (BESRA). The program promotes the use of research findings in policy formulation and instructional decision-making of the institution's various levels and sectors. (Department of Education Technical Assistance Manual). Thus, the objective of this research was to measure the level of competencies of teachers in research writing in a particular high school in Silang, Cavite, Philippines. The results of the study would address the main goal of the study which was to make a necessary program framework that will help the teachers enhance their research writing skills.

## MATERIALS AND METHODS

### *Research Design*

The study used quantitative research design. According to Allen (2017), quantitative research is finding out a knowledge depending on the observed or measured data gotten from a particular group of people or sample population. This can be done by sending the respondents with an online survey, online polls, and questionnaire (questionpro.com, n.d.). The researchers gathered the data by giving printed survey questionnaires to the respondents. This study particularly utilized comparative research design. This determines the connection between or among variables. Specifically, this tries to determine the difference that two or more groups already have (scribd.com, 2020). The teachers' levels of competencies were compared according to their characteristics such as sex, age group, and years in teaching service.

### *Respondents of the Study*

The respondents of the study were all the teachers at a particular high school in Silang, Cavite, Philippines, both in Junior and Senior High School departments for the school year 2022 – 2023, excluding the two researchers. Total population sampling technique was used because all teachers were the respondents. This technique is done to examine the characteristics of a certain whole population (Canonizado, 2021). This is recommendable to be used if the number of people is manageable that eliminates the bias of the study (Glen, 2018).

There were 10 male and 42 female respondents, with a total of 52. It was noticeable that the number of teachers from different grade levels were not equal and there was a big difference between the number of male and female teachers.

### *Research Instrument*

The utilization of the survey questionnaire only happened after the validation. The researcher-made instrument was validated by two research experts from the Schools Division Office of Roxas City in Aklan and from Laguna State Polytechnic University in Los Baños, Laguna. The instrument was validated using the survey validation tool crafted by Oducado (n.d.). Then, this was checked by one language teacher of Lumil Integrated National high School in terms of grammar. Table 1 shows the scale, and the descriptors used in survey questionnaire assessing the teachers' level of research writing competency.

***Table 1.*** *Scale and Descriptor for Teachers' Self-assessment of their Level of Research Writing Competency*

| Scale | Descriptor |
|---|---|
| 5 | Outstanding |
| 4 | Very Satisfactory |
| 3 | Satisfactory |
| 2 | Fairly Satisfactory |
| 1 | Needs Improvement |

Table 2 shows the scale and the interpretation for teachers' research writing competency mean scores.

***Table 2.*** *Scale and Interpretation for Teachers' Research Writing Competency Mean Scores*

| Scale | Interpretation |
|---|---|
| 4.20 – 5.00 | Very High Mastery |
| 3.40 – 4.19 | High Mastery |
| 2.60 – 3.39 | Moderate Mastery |
| 1.80 – 2.59 | Low Mastery |
| 1.00 – 1.79 | Very Low Mastery |

The researchers asked permission to conduct the study by giving a letter of request to the current school heads. Upon the approval, the researchers had started the research proposal. Then, they asked the consent of the teachers to be the participants of the study through another letter, guarantying the confidentiality of the information that they would give. Then, they answered the printed survey questionnaires. The data were recorded and subjected to statistical treatment and analysis.

## RESULTS AND DISCUSSIONS

Table 3 shows the frequency of the teachers based on their research competency level and the survey mean scores per component.

***Table 3.*** *Frequency Distribution of the Teachers Based on the Level of Research Competency and the Survey Mean Scores per Component*

| Research Components | Very High Mastery | High Mastery | Moderate Mastery | Low Mastery | Very Low Mastery | Mean | Standard Deviation | Description |
|---|---|---|---|---|---|---|---|---|
| A. Brainstorming for Research Topic and Title | 3 | 10 | 17 | 15 | 7 | 2.72 | 0.97 | Moderately Mastery |
| B. Identifying the Problem and Asking the Question | 1 | 8 | 23 | 12 | 8 | 2.69 | 0.94 | Moderately Mastery |
| C. Reading on Related Literature and Studies | 2 | 8 | 17 | 16 | 9 | 2.55 | 1.02 | Low Mastery |
| D. Understanding Ways to Collect Data | 2 | 5 | 19 | 16 | 10 | 2.50 | 0.94 | Low Mastery |
| E. Finding the Answers to the Research Questions | 3 | 11 | 16 | 14 | 8 | 2.66 | 1.01 | Moderately Mastery |
| F. Reporting Findings, Drawing Conclusions and Making Recommendations | 3 | 11 | 17 | 13 | 8 | 2.70 | 1.06 | Moderately Mastery |
| G. Sharing the Research | 2 | 6 | 17 | 13 | 14 | 2.41 | 1.03 | Low Mastery |

This shows that based on the survey mean scores, respondents had moderate mastery on the brainstorming for research topic and title, identifying the problem and asking the question, finding the answers to the research questions, and reporting findings, drawing conclusions and making. On the Other hand, the survey mean scores on reading the related literature and studies, understanding ways to collect data, and sharing the research were described as low mastery. Not more than three (3) of them got a very high mastery on all the research components, while most of them admitted that they had either moderate or low mastery of their research skills. There was a substantial number of the respondents who got very low mastery, especially on data collection process and research dissemination. This supported the study of Tamban and Maningas (2020) which revealed that teachers had only moderate level in completing a research study. Furthermore, this is similar to the result of the study of Pabilando, et al. (n.d.) which proved that teachers are less capable of writing results and discussion part in research and feel anxious about conducting research. Teachers' low to moderate capability in conducting research can be attributed to different factors. In the study of Salde and Mamaoag (2021), the results revealed that teachers' capability of conducting research is slightly low and they are showing neutral attitudes toward it. In terms of writing research, they feel slightly motivated. Also, they believe that following research processes could be highly difficult while action planning could be moderately difficult. Table 4 shows the comparison between the survey mean scores of research competency of the male and female teachers.

***Table 4.*** *Results of t-Test of Independent Means of the Teachers' Research Competency in Terms of Sex*

| Research Components | Mean Scores | | p-value (α=0.05) | Decision |
|---|---|---|---|---|
| | Male | Female | | |
| A. Brainstorming for Research Topic and Title | 2.80 | 2.70 | 0.77 | fail to reject $H_0$ |
| B. Identifying the Problem and Asking the Question | 2.69 | 2.68 | 0.99 | fail to reject $H_0$ |
| C. Reading on Related Literature and Studies | 2.76 | 2.50 | 0.48 | fail to reject $H_0$ |

| | | | | |
|---|---|---|---|---|
| D. Understanding Ways to Collect Data | 2.57 | 2.48 | 0.79 | fail to reject $H_0$ |
| E. Finding the Answers to the Research Questions | 2.88 | 2.60 | 0.45 | fail to reject $H_0$ |
| F. Reporting Findings, Drawing Conclusions and Making Recommendations | 2.80 | 2.67 | 0.73 | fail to reject $H_0$ |
| G. Sharing the Research | 2.51 | 2.39 | 0.73 | fail to reject $H_0$ |

** *Significant at p-value < 0.05*

The table presents that all the p-values from each research component are greater than the alpha (0.05); hence, the null hypotheses were failed to reject. There was no significant difference on the teachers' research competency when they were classified according to their sex. This tells that both male and female teachers had the same level of research skills.

This is somehow similar to the outcome of the research of Sukri, et al. (2023) that tells that male's and female's research ability did not differ significantly; however, their respondents were students who were prospective science teachers. Nevertheless, sex is not an indicator of research skill or competency.

Table 5 shows the comparison between the survey mean scores of research competency of the teachers when they were grouped according to their age.

***Table 5.*** *Results of Analysis of Variance (ANOVA) of the Teachers' Research Competency in Terms of Age Group*

| Research Components | Mean Scores | | | | | | | | p-value (α=0.05) | Decision |
|---|---|---|---|---|---|---|---|---|---|---|
| | 25 years old or below | 26 – 30 years old | 31 – 35 years old | 36 – 40 years old | 41 – 45 years old | 46 – 50 years old | 51 – 55 years old | 56 years old or above | | |
| A. Brainstorming for Research Topic and Title | 2.78 | 2.54 | 3.35 | 2.76 | 2.31 | 2.47 | 2.54 | 2.72 | 0.81 | fail to reject $H_0$ |
| B. Identifying the Problem and Asking the Question | 2.67 | 2.55 | 2.84 | 2.90 | 2.38 | 2.27 | 2.86 | 2.85 | 0.94 | fail to reject $H_0$ |
| C. Reading on Related Literature and Studies | 2.80 | 2.49 | 3.00 | 2.58 | 2.09 | 2.27 | 2.53 | 2.56 | 0.89 | fail to reject $H_0$ |
| D. Understanding Ways to Collect Data | 2.62 | 2.29 | 3.13 | 2.50 | 2.37 | 1.97 | 2.70 | 2.30 | 0.82 | fail to reject $H_0$ |
| E. Finding the Answers to the Research Questions | 2.58 | 2.46 | 3.00 | 2.76 | 2.43 | 2.13 | 2.73 | 3.16 | 0.87 | fail to reject $H_0$ |
| F. Reporting Findings, Drawing Conclusions and Making Recommendations | 2.68 | 2.74 | 3.00 | 2.74 | 2.54 | 2.20 | 2.70 | 2.84 | 0.99 | fail to reject $H_0$ |
| G. Sharing the Research | 2.40 | 2.45 | 2.25 | 2.44 | 2.52 | 2.00 | 2.58 | 2.35 | 1.00 | fail to reject $H_0$ |

** *Significant at p-value < 0.05*

All the null hypotheses were rejected because the p-value from every research component surpassed the 0.05, alpha. There was no significant difference between the teachers' research competency based on survey mean scores in terms of age group. This indicates that the teachers from various age brackets have equal levels of research competency. Table 6 shows the comparison between the survey mean scores of research competency of the teachers when they were classified according to their years in teaching.

***Table 6.*** *Results of Analysis of Variance (ANOVA) of the Teachers' Research Competency in Terms of Years in Teaching*

| Research Components | Mean Scores | | | p-value (α=0.05) | Decision |
|---|---|---|---|---|---|
| | 0 – 3 years | 4 – 10 years | More than 10 years | | |
| A. Brainstorming for Research Topic and Title | 3.36 | 2.71 | 2.38 | **0.03 | reject $H_0$ |
| B. Identifying the Problem and Asking the Question | 3.31 | 2.73 | 2.29 | **0.02 | reject $H_0$ |
| C. Reading on Related Literature and Studies | 3.32 | 2.53 | 2.14 | **0.01 | reject $H_0$ |
| D. Understanding Ways to Collect Data | 3.17 | 2.53 | 2.08 | **0.01 | reject $H_0$ |
| E. Finding the Answers to the Research Questions | 3.20 | 2.74 | 2.24 | **<0.05 | reject $H_0$ |
| F. Reporting Findings, Drawing Conclusions and Making Recommendations | 3.24 | 2.88 | 2.16 | **0.02 | reject $H_0$ |
| G. Sharing the Research | 3.13 | 2.49 | 1.91 | **0.01 | reject $H_0$ |

** *Significant at p-value < 0.05*

The p-values of all the research components are less than the alpha which is 0.05; thus, all the null hypotheses were rejected. There was a significant difference between the teachers' research competency when they were classified according to the length of teaching service. Using the Bonferroni post-hoc test, it revealed that the teachers under 0 – 3 years and under more than 10 years differed in terms of their research competency. When they were compared statistically, all their p-values were lower than the alpha of 0.017. The new teachers showed higher mastery in research based on their self-assessment survey mean scores.

Table 7 shows the comparison between the survey mean scores of research competency of the teachers when they are classified according to their years in teaching using Bonferroni post-hoc test.

***Table 7.*** *Results of Bonferroni Post-hoc Test on the Teachers' Research Competency in Terms of Years in Teaching*

| Research Components | p-value (α=0.05) | | |
|---|---|---|---|
| | 0 – 3 years Vs. 4 – 10 years | 0 – 3 years Vs. More than 10 years | 4 – 10 years Vs. More than 10 years |
| A. Brainstorming for Research Topic and Title | 0.075 | *0.015 | 0.243 |
| B. Identifying the Problem and Asking the Question | 0.114 | **0.007 | 0.095 |
| C. Reading on Related Literature and Studies | 0.051 | **0.003 | 0.178 |
| D. Understanding Ways to Collect Data | 0.088 | **0.003 | 0.084 |
| E. Finding the Answers to the Research Questions | 0.269 | **0.010 | 0.094 |
| F. Reporting Findings, Drawing Conclusions and Making Recommendations | 0.383 | **0.005 | 0.022 |
| G. Sharing the Research | 0.114 | **0.001 | 0.054 |

** *Significant at p-value < 0.017*

Years in teaching service is an indicator of teachers' knowledge in research writing. This affirms the study of Samosa (2021) which stated that there is a significant relationship among novice teachers between self-efficacy, research attitude and anxiety. The categorization on the novice teachers' profile reveals a meaningful gap in self-efficacy, research attitude and anxiety as determinants of research capability.

## CONCLUSIONS

The teacher respondents' level of research competencies on the brainstorming for research topic and title, identifying the problem and asking the question, finding the answers to the research questions, and reporting findings, drawing conclusions and making was classified as moderate mastery; while they had low mastery on reading the related literature and studies, understanding ways to collect data, and sharing your research, and sharing the research. Only few of them had high mastery in making research. In addition, most of them possessed a moderate and low mastery of research skills which need to be addressed.

They had the same level of research competency when they were classified according to sex and age group. However, they showed differences when they were grouped according to the length of service in teaching. New teachers, under 0 – 3 years in service, showed more competent skills in research compared to the teachers who rendered more than ten years in teaching.

## RECOMMENDATIONS

Based on the results, teachers who are new in service showed highest competency to research compared to teachers who have been long-serving. Younger teachers are deemed more interested and equipped with fresher knowledge and skills, so they are more motivated to do research. In addition, they need to engage in research for promotion and professional growth. It is recommended that research training programs be more focused to them.

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