

**PHILIPPINE NORMAL UNIVERSITY**

The National Center for Teacher Education

ABSTRACT**Research Capability, Research Skills, Capability Building**

This study was conducted for the purpose of determining the level of Research capability of the Grade 9 and 10 Science teachers in Agusan del Sur. The respondents in the study were taken from seven high schools in Agusan del Sur, which represent high schools coming from municipality/city located along the Philippine-Japan Friendship highway; this is a descriptive-developmental method of research making use of the researcher-made questionnaire for data gathering. Data were analyzed and interpreted using Frequency, Mean and Analyses of Variance. The findings of the study revealed that the level of Research capability of the Grade 9 and 10 Science Teachers in Agusan del Sur is in the moderate capability level when it comes to Research Content; in terms of Writing Ability, it is in the low capability level. Moreover, the respondents have a low capability level in Statistical Ability and also have a low capability level when it comes to Planning Ability. There are no significant differences in the Research capability in terms of Research Content, Writing Ability, Statistical Ability, and Planning ability when respondents are grouped according to the degree earned (BSE or BS). Moreover, there is a significant difference in the Research capability in terms of Research Content, Writing Ability and Planning Ability among the Grade 9 & 10 Science Teachers when grouped according to Program Specialization but there is no significant difference in the Research capability in terms of Statistical ability. When respondents are grouped as research advisers and non-Research advisers, there is a significant difference in the Research capability in terms of Research Content and Statistical Ability but there is no significant difference in the Research capability in terms of Writing

**PHILIPPINE NORMAL UNIVERSITY**

The National Center for Teacher Education

Ability and Planning ability. It is also concluded that the number of years of teaching experience does not significantly affect the Research capability of Grade 9 & 10 Science Teachers in terms of Research Content, Writing Ability, Statistical ability and Planning ability when the respondents are classified according to those that fall under one to five years teaching experience and six years and above teaching experience. A capability building program is designed which is recommended for adaption to address the needs of the teachers.

**PHILIPPINE NORMAL UNIVERSITY**

The National Center for Teacher Education

ABSTRAK**Research Capability, Research Skills, Capability Building**

Nilalayon ng pag-aaral na ito na matukoy ang lebel ng kakayahan sa pananaliksik ng mga guro sa Science Baitang 9 at 10 ng Agusan del Sur. Ang mga respondent ay nagmula sa pitong (7) matataas na paaralan sa nabanggit na lalawigan na matatagpuan sa gilid lamang ng kalsada o *Philippine-Japan Friendship highway*. Deskriptiv-debelpmental ang pamamaraan ng pananaliksik at gumamit ng talatanungang gawa ng resertser para sa pangangalap ng datos. Gumamit ng *Frequency, Mean, at Analysis of Variance* sa pagbibigay-kahulugan sa mga datos. Natuklasan sa pag-aaral na ang lebel ng kakayahan sa pananaliksik ng mga guro sa Science Baitang 9 at 10 ng Agusan del Sur ay katamtaman sa *Research Content* at mababang antas ng kakayahan naman sa *Writing Ability*. Dagdag pa, ang mga respondent ay parehong mababa ang kakayahan sa *Statistical Ability at Planning Ability*. Kapag pinangkat ayon sa digri (BSE o BS), walang nakitang kaibahan sa kakayahan ng pananaliksik sa *Research Content, Writing Ability, Statistical Ability*. Ngunit kapag pinangkat ayon sa espesyalisasyon, may nakitang kaibahan sa kakayahan ng pananaliksik sa *Research Content, Writing Ability at Planning Ability* sa mga guro ng Science Baitang 9 at 10 pero walang nakikitang kaibahan naman sa *Statistical Ability*. Kapag pinangkat kung naging tagapayo na sa mga pananaliksik o hindi, may nakitang kaibahan sa kakayahan ng pananaliksik sa *Research Content at Statistical Ability* ngunit wala namang kaibahan sa *Writing Ability at Planning Ability*. Napag-alaman ding ang bilang ng taon sa pagtuturo ay hindi nakakaapekto sa kakayahan sa pananaliksik ng mga guro sa Science Baitang 9 at 10 sa *Research Content, Writing Ability, Statistical Ability at Planning Ability* kapag ang pinagbatayan ay ang mga

**PHILIPPINE NORMAL UNIVERSITY**

The National Center for Teacher Education

respondent na may limang taongkaranasan o mababa pa at anim na taong karanasan o higit pa. Dinisenyo ang isang *capability building program* upang matugunan ang pangangailangan ng mga nasabing guro.

**PHILIPPINE NORMAL UNIVERSITY**

The National Center for Teacher Education

ACKNOWLEDGMENT

This study is a result of endurance, determination, inspiration and sacrifices. This would not be possible if not for the collective efforts of the following persons whom the researcher is indebted to:

Prof Fabian Pontiveros Jr., her adviser whose scholarly ideas guided her throughout the study and put this work into reality;

Dr. Adelyne M. Costelo - Abrea, the researcher's grammarian and also chair of the panel of the oral examiners;

Prof. Cornelio L. Labao Jr. and Prof. Jovenal Dela Cruz., members of the panel, for sharing their insights and expertise for the improvement of this study;

Prof. Rachel C. Payapaya for translating the Abstract in Filipino;

Dr. Minerva T. Albis, the Schools Division Superintenden of Agusan Division altogether with the principals and Science teachers of Agusan Del Sur National High School, Bayugan National Comprehensive High School, Bunawan National High School, Datu Lipus Makapandong National High School, Patin-ay National High School, Sibagat National High School and Trento National High School for their whole-hearted support and approval in the conduct of this study;

To her parents, brothers and sisters, and friends for their inspiration, prayers and loving concern;

To Emeleo for his love and companionship, and above all, to GOD ALMIGHTY, for all blessings and guidance that made this work successful.

KGS

**PHILIPPINE NORMAL UNIVERSITY**

The National Center for Teacher Education

To my ever dearest parents

Papa Nap and Mama Emy,

To my sister-best friends

Ate Jan, Sis Joy and Mandi Ana,

To my son

Emeleo,

who is the source of my inspiration

and to

GOD Almighty,

who always filled me with a vibrant sense of fulfillment.

This piece of work is

humbly dedicated.



PHILIPPINE NORMAL UNIVERSITY

The National Center for Teacher Education

TABLE OF CONTENTS

| | |
|---|-------------|
| TITLE PAGE | i |
| CERTIFICATE OF APPROVAL | ii |
| ABSTRACT | iii |
| ACKNOWLEDGMENT | vii |
| DEDICATION | viii |
| TABLE OF CONTENTS | ix |
| LIST OF TABLES | xii |
| | |
| Chapter 1 THE PROBLEM AND ITS BACKGROUND | 1 |
| 1.1 Introduction | 1 |
| 1.2 Conceptual Framework | 3 |
| 1.3 Research Paradigm | 6 |
| 1.4 Statement of the Problem | 7 |
| 1.5 Significance of the Study | 9 |
| 1.6 Scope and Delimitations of the Study..... | 10 |
| 1.7 Definition of Terms | 10 |
| | |
| Chapter 2 REVIEW OF RELATED LITERATURE | 12 |
| 2.1 Conceptual Literature..... | 12 |
| 2.2 Research Literature | 15 |
| | |
| Chapter 3 METHODS AND PROCEDURES | 18 |
| 3.1 Research Design | 18 |
| 3.2 Respondents of the study | 18 |
| 3.3 Setting of the study | 20 |



PHILIPPINE NORMAL UNIVERSITY

The National Center for Teacher Education

| | |
|------------------------------------|----|
| 3.4 Research Instrument | 25 |
| 3.5 Data Gathering Procedure | 26 |
| 3.6 Data Analysis | 26 |

Chapter 4 PRESENTATION, ANALYSIS AND INTERPRETATION OF

| | |
|---|-----------|
| DATA | 28 |
| 4.1 Profile of the Respondents | 28 |
| 4.2 Research Capability of Grade 9 and 10 Science Teachers in Agusan del Sur | 29 |
| 4.3 Comparison of Research Capability of Science Teachers When Grouped according to the Degree Earned –BSE and BS..... | 30 |
| 4.4 Comparison of Research Capability of Science Teachers When Grouped By Program Specialization..... | 32 |
| 4.5 Comparison of Research Capability of Science Teachers When Grouped According to the Status of Research Advisory..... | 38 |
| 4.6 Comparison of Research Capability of Science Teachers When Grouped According to Years of Teaching Experience..... | 40 |
| 4.7 The Most Important Training/ Intervention that would Enhance Most the Research Capability as Ranked by the Grade 9 & 10 Science teacher in Agusan del Sur | 43 |
| 4.8 Summary of Research Capability Skills that Needs to be Enhanced..... | 44 |
| 4.9 Capability Building Program for Research Training..... | 48 |

Chapter 5 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....52

| | |
|-------------------------------|----|
| 5.1 Summary of Problems | 52 |
| 5.2 Summary of Findings..... | 52 |
| 5.3 Conclusions | 55 |
| 5.4 Recommendation | 56 |

**PHILIPPINE NORMAL UNIVERSITY**

The National Center for Teacher Education

| | |
|---|----|
| REFERENCES | 58 |
| | |
| APPENDICES | 61 |
| A Letter to the Schools Division Superintendent | 61 |
| B Letter of Request to the School Principal..... | 62 |
| C Letter of Request to the Science Department Head..... | 63 |
| D Letter of Request to the Executive Director | 64 |
| E Letter of Request to the Expert Validator | 65 |
| F Letter of Request to the Exper Validator..... | 66 |
| G Profile and Research Capability Test Answer Sheet Grade 9 & 10 Science teacher..... | 67 |
| H Profile and Research Capability Test Questionnaire Grade 9 & 10 Science teachers..... | 68 |
| I Answer Key for Research Capability Test Questionnaire | 79 |
| J Evaluation Sheet for Research Capability Test Questionnaire..... | 80 |
| K Research Capability Test Questionnaire Validation Result | 82 |
| L Evaluator's Profile..... | 83 |
| M Evaluator's Profile..... | 84 |
| N Evaluator's Profile..... | 85 |
| O Detailed Capability Building Program..... | 86 |



| | |
|-------------------------------|-----|
| CURRICULUM VITAE | 124 |
|-------------------------------|-----|

LIST OF TABLES

| TABLE | PAGE |
|--|-------------|
| 3. 1 Distribution of Respondents- Bachelor of Secondary Education..... | 19 |
| 3.2 Distribution of Respondents- Bachelor of Science..... | 19 |
| 3.3 Common Variables of the Seven Representative High Schools..... | 21 |
| 3.4 Test Equivalence Rating Scale | 27 |
| 4.1 Profile of the Respondents..... | 29 |
| 4.2 Research Capability of Grade 9 and 10 Science Teachers in Agusan del Sur | 30 |
| 4.3 Research Capability of Science Teachers according to the Degree Earned | 31 |
| 4.4 Multivariate Analyses of Means According to Degree Earned | 32 |
| 4.5 Comparison of Research Capability According to Program Specialization..... | 34 |
| 4.6 Multivariate Analyses on the Means According to Program Specialization..... | 35 |
| 4.7 Scheffe's Test on the Significant Difference in terms of Content | 36 |
| 4.8 Scheffe's Test on the Significant Difference in terms of Writing Ability | 37 |



PHILIPPINE NORMAL UNIVERSITY

The National Center for Teacher Education

| | |
|---|----|
| 4.9 Scheffe's Test on the Significant Difference in terms of Planning Ability | 38 |
| 4.10 Research Capability According to the Status of Research Advisory | 39 |
| 4.11 Multivariate Analyses on the Means According to Research Advisory..... | 40 |
| 4.12 Research Capability According to Number of Years of Teaching Experience | 41 |
| 4.13 Multivariate Analyses on the Means According to Number of Years of Teaching..... | 42 |
| 4.14 Frequency Distribution of the Most Important Training/Intervention | 43 |
| 4.15 Group of Respondents that Needs Capability Building Program in terms of Research Content..... | 45 |
| 4.16 Group of Respondents that Needs Capability Building Program in terms of Writing Ability..... | 46 |
| 4.17 Group of Respondents that Needs Capability Building Program in terms of Statistical Ability..... | 47 |
| 4.18 Group of Respondents that Needs Capability Building Program in terms of Planning Ability..... | 48 |
| 4.19 Capability Building Program For Research Training..... | 49 |



PHILIPPINE NORMAL UNIVERSITY

The National Center for Teacher Education