



Republic of the Philippines  
Department of Education  
REGION VII, CENTRAL VISAYAS  
Division of Cebu Province



**SELF-LEARNING HOME TASK (SLHT)**

Subject: **Inquiries, Investigation and Immersion**

Grade Level: 12

Name \_\_\_\_\_ Section \_\_\_\_\_ Date \_\_\_\_\_

School: Dalaguete National High School District: Dalaguete 1

**Quarter: 1**

**Week: 1**

**Competency: Describe characteristics, strengths and weaknesses, and kinds of quantitative research. ( CS\_RS12-Ia-c-1)**

**Readings/Discussions**

**QUANTITATIVE RESEARCH**

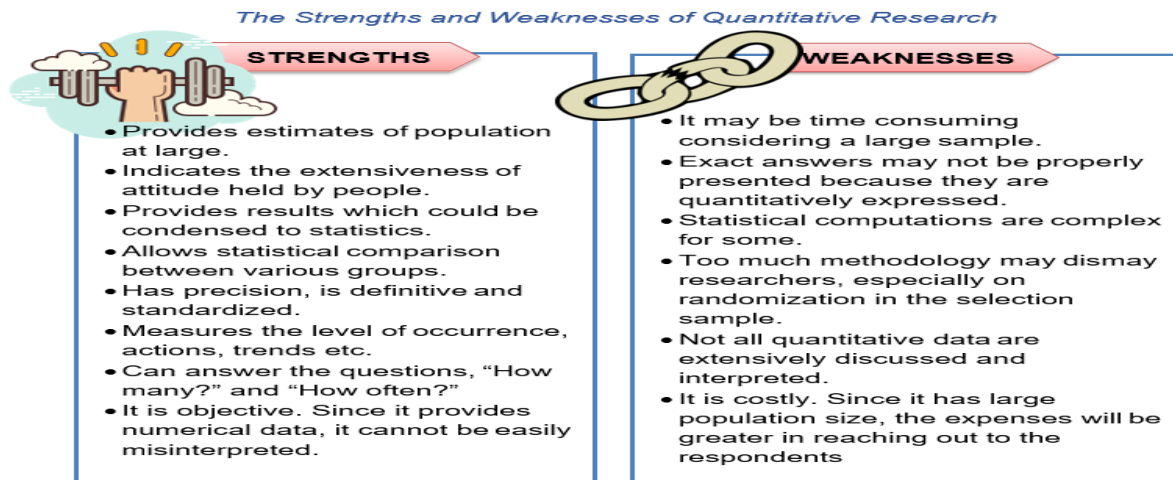
**Quantitative Research** is an objective, systematic, empirical investigation of observable phenomena with computational techniques. It highlights numerical analysis of data hoping that the numbers yield unbiased results that can be generalized to some larger population and explain an observation. (*Practical Research 2;pp 1-2;Lorimar Pub, c2016*)

**CHARACTERISTICS OF QUANTITATIVE RESEARCH**

1. **OBJECTIVE.** Quantitative research seeks accurate measurement and analysis of target concepts. It is not based on mere intuitions and guesses. Data are gathered before proposing a conclusion or solution to a problem.
2. **STRUCTURED RESEARCH INSTRUMENTS.** Data are normally gathered using structured research tools such as questionnaires to collect measurable characteristics of the population.
3. **CLEARLY DEFINED RESEARCH QUESTIONS.** In quantitative research, the researchers know in advance what they are looking for. The research questions are well-defined for which objective answers are sought. All aspects of the study are carefully designed before data are gathered.
4. **NUMERICAL DATA.** Data are in the form of numbers and statistics, often organized and presented using tables, charts, graphs and figures that consolidate large numbers of data to show relationship among variables.
5. **LARGE SAMPLE SIZES.** To arrive at a more reliable data analysis, a normal population distribution curve is preferred. This requires a large sample size, depending on how the characteristics of the population vary.
6. **REPLICATION.** Reliable quantitative studies can be repeated to verify or confirm the correctness of the results in another setting. This strengthens the validity of the findings

thus eliminating the possibility of spurious conclusions.

7. **FUTURE OUTCOMES.** By using complex mathematical calculations and with the aid of computers, if-then scenarios may be formulated thus predicting future results.



### Kinds of Quantitative Research

**Descriptive Research.** This design is concerned with describing the nature, characteristics and components of the population or a phenomenon.

Example: 1. *The hours senior high school students spend in social media.*

2. *The condition of No back-riding Policy of motorcycles in the town of Pag-asa*

3. *The effect of the shifting of classes to students and parents*

**Correlational Research.** It is the systematic investigation of the nature of relationships, or associations between and among variables without necessarily investigating into causal reasons underlying them.

Example: *You want to research about the relationship of the following:*

1. *sex and mathematical ability*

2. *marriage and cancer recovery*

3. *occupation, and life span.*

**Evaluation Research.** This kind of research aims to assess the effects, impacts or outcomes of practices, policies, or programs.

Example: 1. *Determining the impact of a new treatment procedure to patients.*

2. *Evaluating the attitude of the students in learning to the new technology used in teaching*

3. *The effectiveness of wearing of facemask in the town of Pag-asa.*

**Survey Research.** A survey research is used to gather information from groups of people by selecting and studying samples chosen from a population. It may be done in various ways like face-to-face, phone, email, and online.

Example: 1. *Determining the rate of promotion of doctorate*

*degree holders five years after earning the degree.*

2. *Sanitary practices of the student at home*

### 3. Preferable track of the senior high school students

**Causal-Comparative Research.** It is also known as ex post facto (after the fact) research. This kind of research derives conclusion from observations and manifestations that already occurred in the past and now compared to some dependent variables.

- Example: 1. *If you are interested in how weight influences stress-coping level of adults. Subject would be separated by groups (underweight, normal weight, overweight) and their stress-coping levels measured. Weight is a pre-existing characteristic that makes it an ex post facto design.*
2. *You want to know why the people in Pag-asa has higher of incidents of cancer than its neighboring town (cancer cases are the pre-existing fact that makes it ex post facto)*
3. *The increase of fatal vehicular accidents in a town (vehicular accident is the pre-existing fact that makes it ex post facto)*

**Experimental Research.** This research utilizes scientific method to test cause-and-effect relationships under conditions controlled by the researcher. In this case an effort is made to determine and impose control over all other variables except one.

- Example: 1. *A teacher would like to know if a new teaching strategy is effective or not so he/she teaches one section using the new strategy and teaches another comparable section without the new strategy, then an achievement test was given to the two sections. The manipulated independent variable is the new teaching strategy and all other variables are controlled by the teacher.*
2. *An agriculturist wants to know which is more effective, organic fertilizer or synthetic inorganic fertilizer in sweet potato crops.*
3. *A dietician wants to recommend ampalaya ice cream to his patients. He wants to know how much ratio of ampalaya and milk would be acceptable to the taste of his patients.*

#### Exercise 1:

**Test I. Directions:** Identify which about quantitative research is described in each item below. Choose your answer from the box.

Objective	Conclusive	Result-oriented	Structured data gathering method
Particularistic	Random sampling	Hypotheses are tested	
Deductive	Measurable	Numerical data	

1. Examples of these are the standardized or researcher-made questionnaires, surveys, and observations.
2. These are information which are expressed in numbers.
3. These are presumptions to be computed before accepting it as true.
4. The relevance of the outcome is more important than the process of the research.
5. This is the ability of the data to be counted.
6. It denotes the unbiased representation of the total population.
7. It starts out with a general statement, or hypothesis, and examines the possibilities to reach a specific, logical conclusion.
8. It is meant to provide information that is useful in reaching conclusions or decision-making.
9. The results and conclusion are based on relevant facts, not on personal perception.
10. Quantitative research focuses on a specific research problem to yield specific outcomes.

**Test II. Directions:** Below are sample scenarios/situations where the different kinds of quantitative research can be employed. Choose the appropriate quantitative research design to be used for each situation. Draw the corresponding icon on a separate sheet of paper.

1. Opinion polls about the positive and negative effects of Covid-19 pandemic to the Grade 12 learners of Faith School.
2. Effectiveness of Teaching Mathematics Using Conventional and Modern Methods
3. Describing the relationship between the incomes of the employees with their work performance.
4. Determining whether a computer-based ACT program has a positive effect on ACT test scores.
5. Providing that marriage has a negative correlation with cancer. It means that married people are less likely to develop cancer.

## **Assessment/Application/Outputs**

### **Test I. IDENTIFICATION.**

**Directions:** Read the statements below. Give what is asked. Write your answers on a separate sheet of paper.

1. This weakness of Quantitative Research causes the researcher to spend more expenses in questionnaire production due to its large number of respondents.
2. This type of quantitative research is the most challenging of all because it tests the cause-and-effect relationships under conditions controlled by the researcher.
3. Quantitative research is considered most reliable and valid because its data is taken from this characteristic.
4. This quantitative research trait, seeking accurate measurement and analysis of

large concepts, both a characteristic and a strength, cannot be misinterpreted easily.

5. Probably the most common of all research designs, this kind of quantitative research is present in almost all research because it tries to explain the nature, characteristics, and components of a phenomenon.

## Test II. MULTIPLE CHOICE.

**Directions:** Read each question or statement. Write the letter of the correct answer on a separate sheet of paper.

1. What kind of research uses the systematic investigation of the nature of relationships, or associations between and among variables without necessarily investigating into causal reasons underlying them?  
a. Causal-Comparative Research    c. Evaluation Research  
b. Correlational Research                      d. Survey Research
2. What kind of research aims to assess the effects, impacts or outcomes of practices, policies or programs?  
a. Causal-Comparative Research    c. Evaluation Research  
b. Correlational Research                      d. Survey Research
3. Using complex mathematical calculations and with the aid of computers, if-then scenarios may be formulated thus predicting future results, which is one of the characteristics of quantitative research?  
a. Future Outcomes                              c. Replication  
b. Numerical Data                                d. Large Sample Sizes
4. What characteristic of quantitative research makes it a more valid study as it presents its data in the form of numbers and statistics, organized in charts, tables, and the like?  
a. Future Outcomes                              c. Replication  
b. Numerical Data                                d. Large Sample Sizes
5. Analyzing data is \_\_\_\_\_ because it uses statistically valid random models as it gathers its data.  
a. quick and difficult                              c. quick and easy  
b. Slow and easy                                 d. slow and difficult
6. Which of the following BEST defines quantitative research?  
a. It is an activity of producing or proving a theorem.  
b. It is an activity concerned with finding new truths in education.  
c. It is an exploration association with libraries, books, and journals.  
d. It is a systematic process for obtaining numerical information about the world.
7. Which research design seeks to describe "what is"?  
a. Correlational Research                              c. Experimental Research  
b. Descriptive Research                              d. Evaluation Research
8. In this type of research, the investigator tries to probe the significance of relationship between two or more factors or characteristics.  
a. Correlational Research                              c. Experimental Research  
b. Descriptive Research                              d. Evaluation Research
9. It is needed to arrive at a more reliable data analysis.

- |                   |                       |
|-------------------|-----------------------|
| a. Objective      | c. Replication        |
| b. Numerical Data | d. Large Sample Sizes |
10. It is done to check the correctness and verify the finding of the study.
- |                   |                       |
|-------------------|-----------------------|
| a. Objective      | c. Replication        |
| b. Numerical Data | d. Large Sample Sizes |

### **Suggested Enrichment/Reinforcement Activity/ies**

#### **Essay Writing.**

**Directions:** In 3-5 sentences, explain your understanding of quantitative research: its characteristics, strengths and weaknesses, and its kinds. Write in a paragraph form on a separate sheet of paper.

#### **References**

##### **Books**

- Esther, Baraceros. *Practical Research 2*. Quezon City: Rex Bookstore, Inc, 2016.
- Faltado, Ruben E. III, Medardo B. Bombita, Helen B. Boholano, and Angeline M. Pogoy. *Practical Research 2: Quantitative Research*. Quezon City: Lorimar Publishing, 2016.
- Ragma, Feljone. *Practical Research 2: Quantitative Research*. Intramuros Manila: Mindshapers Co., Inc., 2019.

##### **Thesis**

- Caballes, Evemahry U., Florie Ann C. Flores, Raniel P. Inoc, and Melbert B. Ople. *Error Analysis on Verb Usage of UC-Main First Year AB Students: Proposed Grammar Tutorial Program*. Osmeña Blvd., Cebu City: University of Cebu, Main Campus, 2007.
- Sabio, Rose Marie P. *Effects of Kakawate (Gliricidia sepium Jacq. Steud.) Leaf Extract Against Aphids (Myzus persicae S.) Infesting Eggplant (Solanum melongena L.)*. Lamacan, Argao, Cebu: Cebu Technological University-Argao Campus, 2019.

Quarter: 1

Week: 2

**Competency: Illustrate the importance of Quantitative Research Across Fields. (CS\_RS12-1a-c-2) and Differentiate kinds of variables and their uses. (CS\_RS12-1a-c3)**

**Readings/Discussions**

### **IMPORTANCE OF QUANTITATIVE RESEARCH**

**IMPROVES THE QUALITY OF LIFE.** It leads man to focus on improving processes and means, which he must love and find interesting.

**IMPROVES INSTRUCTION.** Studies on different methods, strategies, and approaches in teaching various subject areas, grade and year levels have been conducted to determine which method, strategy, or approach is best and most effective in teaching.

**IMPROVES STUDENTS' ACHIEVEMENT.** The students' achievement could be improved if the Modern Teacher keeps himself updated on issues and trends about the modern methods and strategies in teaching by reading related researches or conducting one.

**IMPROVES TEACHER'S COMPETENCE.** A competent teacher is research-oriented teacher. He always conducts research to improve his competence and produce graduates who respond to the socioeconomic development of the country.

**SATISFIES MAN'S NEEDS.** All the modern facilities that satisfy man's needs are all products of research from television to rice cooker, to modern cars and many more.

**REDUCES THE BURDEN OF WORK.** All modern devices like cellphone, laptops, electric heater and others are products of research that made man's work easier.

**HAS DEEP-SEATED PSYCHOLOGICAL ASPECTS.** Research stimulates and ennobles the human spirit. It challenges man to get rid of the danger of stagnation.

**IMPROVES THE EXPORTATION OF FOOD PRODUCTS.** Filipinos become more and more capable of conducting research in agriculture and aquaculture, and in so doing allowing an increase in the exportation of food products.

**RESPONDS TO THE ECONOMIC RECOVERY AND AUSTERITY MEASURE OF THE COUNTRY.** Filipinos who are research-oriented may be able to solve problems of economic crisis through writing researches that will pertain to the improvement of the economic situation.

**TRAINS GRADUATES TO BECOME RESPONSIVE TO THE ECONOMIC DEVELOPMENT OF THE COUNTRY AND COMPETE GLOBALLY.** Through the conduct of research, graduates will have more opportunities to compete globally because schools were able to deliver goods and services to the students effectively, efficiently, and excellently.

A **variable** is anything that may assume varied numerical or categorical values.

**Situation:** A group of students was subjected to aroma therapy using essential oils while reading and another group read under normal conditions, then after a month both groups took a reading comprehension test.

## Types of Variables

**1. Independent Variable.** This is the cause or stimulus variable which is the one responsible for the conditions that act on something else to bring about changes.

*Ex: Exposure to aroma therapy from the above situation*

**2. Dependent Variable.** This is the outcome variable or response variable which is the result or effect of the changes brought about by another variable (usually independent variable).

*Ex: Reading comprehension test from the above situation*

**3. Continuous Variable.** A variable that can take infinite number on the value that can occur within a population.

- **Interval Variable.** It is a measurement where the difference between two values does have meaning.

*Ex: temperature difference of two places*

- **Ratio Variable.** It possesses the properties of interval variable and has a clear definition of zero, indication that there is none of that variable.

*Ex. height*

**4. Discrete Variable.** It is also known as categorical or classificatory variable, is any variable that has a limited number of distinct values and which cannot be divided into fractions like sex, blood group, etc.

- **Nominal Variable.** It is a variable with no quantitative value. It has two or more categories but does not imply ordering of cases.

*Ex: eye color, religion*

- **Ordinal Variable.** It is a variable that has two or more categories which can be ranked.

*Ex: Like music while studying-Not Very Much, Very Much, Much*

**Exercise 1: Directions:** Read each phrase below and identify whether they are I-interval, R-ratio, N-nominal, or O-ordinal variable. Write the code of the correct answers on a separate sheet of paper.

\_\_\_\_\_ 1. Military title

\_\_\_\_\_ 2. Year level



- \_\_\_\_\_ 3. Favorite type of music
- \_\_\_\_\_ 4. Temperature in degrees Celsius
- \_\_\_\_\_ 5. A score in 5-item quiz in Math

**Exercise 2: Directions:** Identify the independent and dependent variables from the given situations below. Write the answers on a separate sheet of paper.

1. Organizational Commitment and Teaching Performance of Elementary Teachers in the District of Dalaguete I

Independent: \_\_\_\_\_

\_\_\_\_\_ Dependent: \_\_\_\_\_

\_\_\_\_\_

2. Conceptual, Interpersonal, and Technical Skills of Bank Managers: Their Relationship to Operational Efficiency

Independent:

\_\_\_\_\_

Dependent:

\_\_\_\_\_

3. Increasing Mathematics Achievement Through Contextualized and Localized Materials

Independent:

\_\_\_\_\_

Dependent:

\_\_\_\_\_

**Assessment:**

**Test I. IDENTIFICATION.**

**Directions:** Read the statements below carefully. Give what is asked. Write the answers on a separate sheet of paper.

1. This is a variable that is controlled by the investigator in which the effects can be neutralized by eliminating or removing the variable.
2. All efforts put into research is because of this value or importance of research to man which seeks to make life better than it was before.

3. Research also seeks to give man full satisfaction in his/her living conditions through improved tools and equipment and that is one of its value.
4. If the investigator wishes to determine the effects of the independent variable A on the dependent variable B, but suspects that a third factor C changes or modifies the relationship between A and B, the C is considered what?
5. A researcher wishes to determine how A (independent variable) will affect B (dependent variable). What variable is needed to strengthen or weaken B?

**Test II. MATCHING TYPE.**

**Directions:** Match the phrases on Column A to its equivalent in Column B. Write the answers on a separate sheet of paper.

A	B
A. Gender	1. Dependent Variable
B. Attitudes	2. Interval Variable
C. Temperature	3. Improves students' achievement
D. Outcome Variable	4. Nominal Variable
E. Distance	5. Ordinal Variable
F. Globally competitive professionals	6. Ratio Variable
G. Robotics	7. Reduces the burden of work
H. The Web	8. Satisfies man's needs
I. Resort Amenities	9. Improves the exportation of food products
J. Exporting mangoes and bananas	10. Trains graduates to become responsive to the economic development of the country and compete globally.

**Test III. Directions:** Read each description carefully. Write one situation and identify what is the independent and dependent variables. Write your answer on your answer sheet.

1. Impact of Blended Learning on Student Achievement in Social Studies

Independent:

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Dependent:

---

2. Effectiveness of Exposing Students in Classical Music on Reading

Comprehension

Independent:

---

Dependent:

---

3. Explain in one sentence. Is dependent and independent variable always present in a study? Explain why or why not?

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### **Suggested Enrichment/Reinforcement Activity/ies**

Essay Writing.

**Directions:** In 3-5 sentences, write the importance of research, particularly, quantitative research, to senior high school students today. What do the variables in research stand for in real life situations? Organization=5 pts., Content 10 points= Total Score: 15 points

### **References**

#### **Books**

Calmorin, Laurentina Palar, Melchor A. Calmorin. *Research Methods and Thesis Writing 2<sup>nd</sup> Ed.* Manila: Rex Book Store, Inc, 2016.

Esther, Baraceros. *Practical Research 2.* Quezon City: Rex Book Store, Inc, 2016. Faltado, Ruben E. III, Medardo B.

Bombita, Helen B. Boholano, and Angeline M. Pogoy. *Practical Research 2: Quantitative Research.* Quezon City: Lorimar Publishing, 2016.

Ragma, Feljone. *Practical Research 2: Quantitative Research.* Intramuros Manila: Mindshapers Co., Inc., 2019.

#### **Electronic References**

[https://www.google.com/search?q=someday+will+know+lyrics&source=lmns&bih=608&biw=1366&hl=en&ved=2ahUKEwiMuNGIp-DqAhVN3JQKHcHJDncQ\\_AUoAHoECAEQAA](https://www.google.com/search?q=someday+will+know+lyrics&source=lmns&bih=608&biw=1366&hl=en&ved=2ahUKEwiMuNGIp-DqAhVN3JQKHcHJDncQ_AUoAHoECAEQAA)

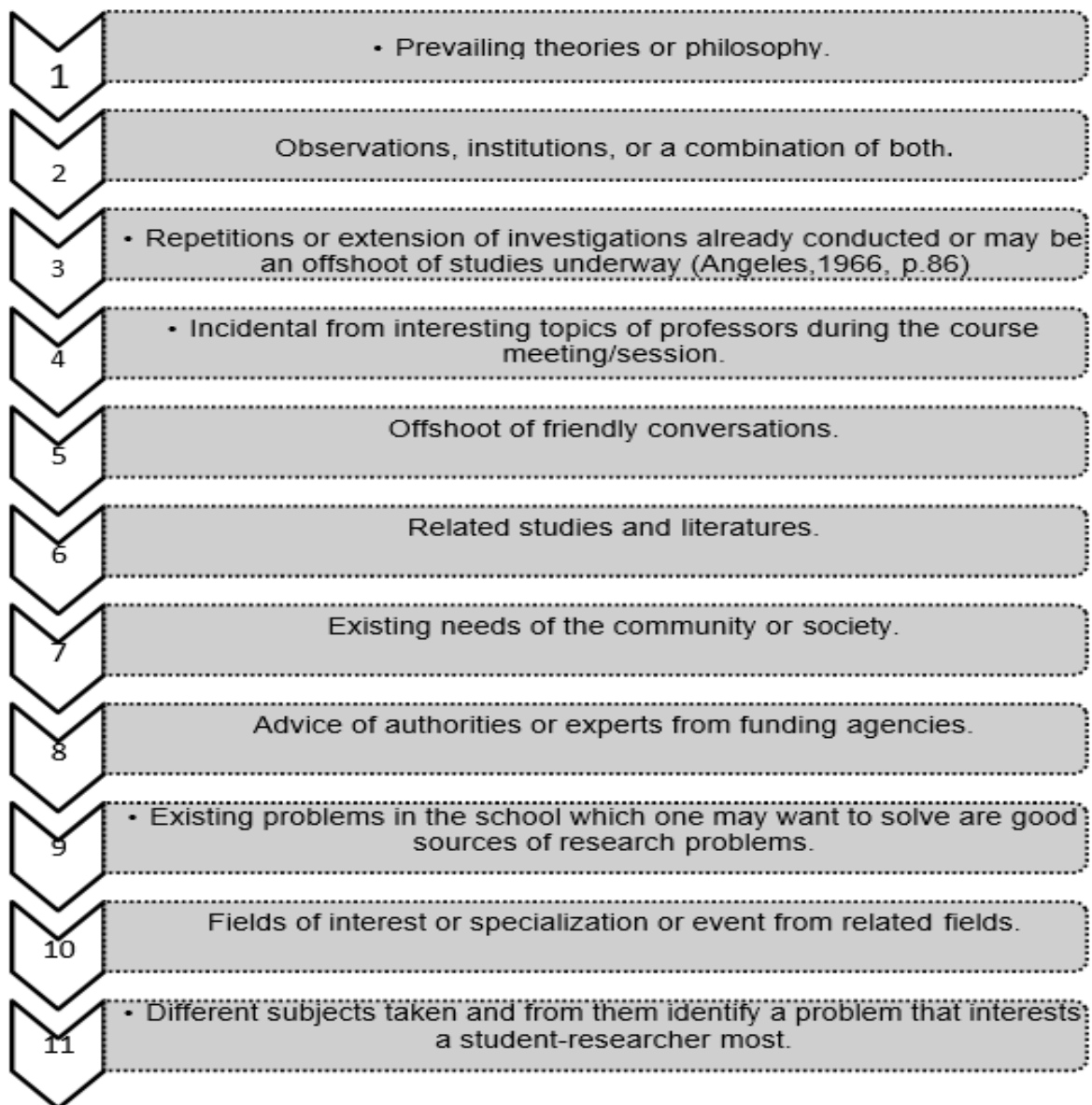
*\*All images are personal drawings of the illustrator.*

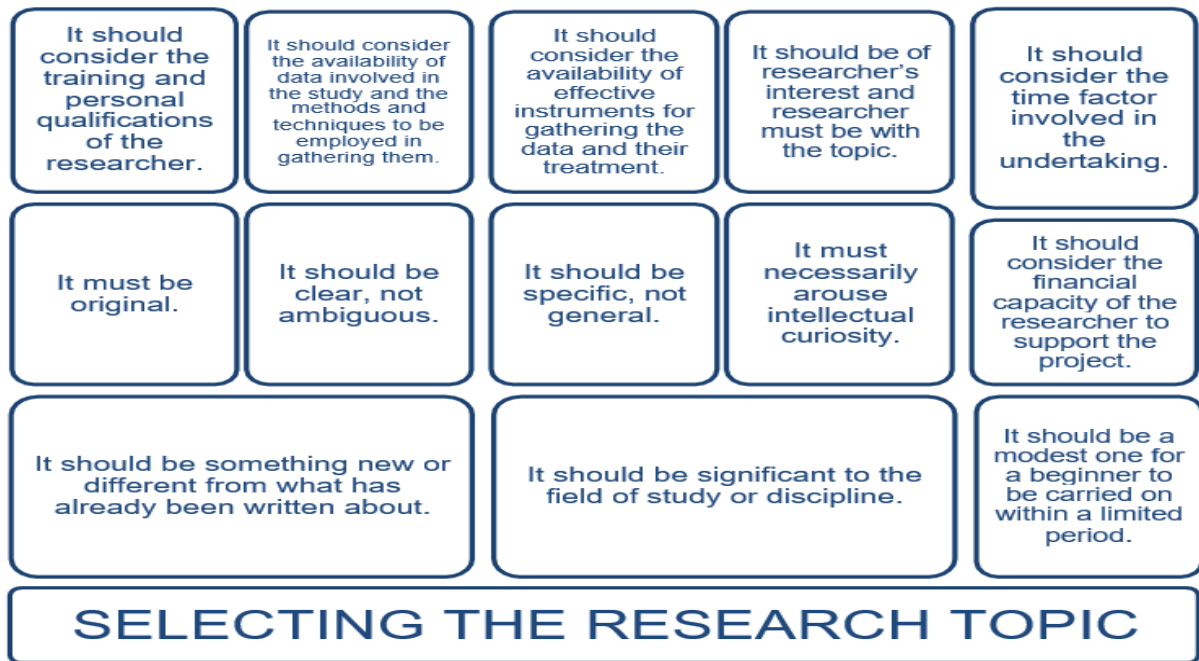
Competency: *Design a research used in daily life (CS\_RS12-Id-e-1) and write a research title (CS\_RS12-Id-e-2)*

Readings/Discussions

**RESEARCH TOPIC** or sometimes called as **RESEARCH PROBLEM** is an intellectual stimulus calling for an answer in the form of scientific inquiry. Topics or problems are general questions about relations among variables, or characteristics of the phenomenon which a researcher needs to undertake (Birionet.al., p.7).

**Sources of Research Topics or Problems**





### Selected Guidelines in the Formulation of a Research Title

- ✓ The title must contain the following elements:
  - a. the subject matter or research problem.
  - b. the setting or locale of the study.
  - c. the respondents or participants involved in the study; and
  - d. the time or period when the study was conducted (If the title becomes too long because of these elements, the timeframe or period may be omitted except in evaluation studies.
- ✓ The title must be broad enough to include all aspects of the study but should be brief and concise as possible.
- ✓ The use of terms as “analysis of”, “An Investigation of” and the like should be avoided. All these are understood to have been done in a research.
- ✓ If the title contains more than one line, it should be written in inverted pyramid.
- ✓ When typed or encoded in the title page, all words in the title should be in capital letters.
- ✓ If possible, the title should not be longer than 15 substantive words.
- ✓ Avoid a long, detailed title that gives too much information.
- ✓ To shorten the title, delete the terms “assessment” or “evaluation” if these are already emphasized in the text.

### Characteristics of a Good Title

1. A title should give readers information about the contents of the research and is preferable to one that is vague or general.
2. Titles do not need to be stuffy or dull, but they should generally give readers some idea at the outset of what the research paper will contain.
3. Choose a title that is a phrase rather than a complete sentence.
4. Select a straightforward title over other kinds.

5. Use no punctuation at the end of a title.
6. Do not underline the title of research or enclose it in quotation marks, instead, use a word processing program or printer that permits italics. Use them in place of underlining.
7. The problem may be stated in question form or given as a declarative statement.

### **Writing a Rationale or Background of the Study**

1. Direct quotation must not be written as the first paragraph, instead this can be rephrased to add substance to the details of the problem.
2. The succeeding paragraph must come from the researcher/s. This must not be copied from any article.
3. Describe the problem situation by considering global, national, local forces. Discussions should be from macro to micro (general to specific). Emphasize situations using facts and statistics. These discussions must have sources. Following referencing format using APA style.
4. In the local scenario, cite the observations, local studies, and the like. There must be emphasis on the local scenario to warrant the existence of the research. More discussions and descriptions must be seen in this part. Statistics should even be cited for more emphasis.
5. Make a clinching statement/paragraph that relates/ emphasizes the situational analysis to the proposed study. Always link one paragraph to the other. Ensure coherence of ideas within and among paragraphs and across sentences.
6. End with the main objective of the study.

### **Exercise:**

**Test I. Directions:** Identify the following research titles whether it is a GOOD RESEARCH TITLE or NOT GOOD RESEARCH TITLE. Put a check (/) mark if it is GOOD and put (X) if it is NOT. Write the answer on a separate sheet of paper.

- \_\_\_\_\_ 1. Opinion polls about the positive and negative effects of Covid-19 pandemic to the Grade 12 learners of Faith School.
- \_\_\_\_\_ 2. Effectiveness of Teaching Mathematics Using Conventional and Modern Methods.
- \_\_\_\_\_ 3. Higher-Order Thinking Skills in Reading of Freshmen in University of Northern Philippines for Academic Year 2015-2016.
- \_\_\_\_\_ 4. Life's Adjustment of Yolanda Victims in Tacloban City

- \_\_\_\_\_ 5. A Multi-Case Study on Child Labor in the Selected Towns of the Province of Cebu
- \_\_\_\_\_ 6. Relationship between the Income of the Employees and their Work Performance
- \_\_\_\_\_ 7. The Positive Effect of the Computer-Based Programs of ACT.
- \_\_\_\_\_ 8. Establishment of Jackfruit Tea Processing Plant in Barangay Bantayan, Tabaco, Albay.
- \_\_\_\_\_ 9. The relationship between Marriage and Cancer
- \_\_\_\_\_ 10. Health Practices of Bachelor of Secondary Education Major in MAPEH at University of Cebu, Academic Year 2017-2018.

**Test II. TRUE or FALSE.** Write **T** if you think the statement is **TRUE** and **F** if the statement is **FALSE**.

- \_\_\_\_\_ 1. In selecting a research topic, it should be original.
- \_\_\_\_\_ 2. Research topic must be ambiguous.
- \_\_\_\_\_ 3. Research topic should consider the time factor involved in the undertaking.
- \_\_\_\_\_ 4. One source of research topic is from observations, institutions, or a combination of both.
- \_\_\_\_\_ 5. Research topics should not be from prevailing theories or philosophies.
- \_\_\_\_\_ 6. Research topics could be existing needs of the community or society.
- \_\_\_\_\_ 7. Research titles should reflect the research design of the study.
- \_\_\_\_\_ 8. Research design can be determined right after the study is completed.
- \_\_\_\_\_ 9. Research title is more important than research design.
- \_\_\_\_\_ 10. In selecting research topics, it should be from the interesting topics of professors during the course meeting or session.

**Exercise 2: Directions:** Read and analyze each of the following situations below. Identify the research design and formulate a research title suitable to the situation then state the factors you consider in formulating your title. Write your answers on a separate sheet of paper.

1. Robi is one of the million citizens in the Philippines whose life got affected by COVID-19. Since there are a lot of new protocols and rules imposed by the government, Robi wants to know its impact to the people in his community.

Research Design: \_\_\_\_\_

Research Title: \_\_\_\_\_  
Factors considered in crafting the title: \_\_\_\_\_  
\_\_\_\_\_

2. Dina is a constant academic awardee since grade school. She is now in college and wants to know if there is a relationship between academic performance and sports engagement since she is a varsity volleyball player.

Research Design: \_\_\_\_\_  
Research Title: \_\_\_\_\_  
Factors considered in crafting the title: \_\_\_\_\_  
\_\_\_\_\_

3. Mika is a Grade 12- learner taking TVL track in Masaganang Pamantasan National High School in a remote area in the Philippines. She belongs to a family of farmers and would like to experiment on new and affordable dishes. She wanted to prove if ampalaya and malunggay could be good ingredients for cakes.

Research Design: \_\_\_\_\_  
Research Title: \_\_\_\_\_  
Factors considered in crafting the title: \_\_\_\_\_  
\_\_\_\_\_

### Assessment:

**Test I. Directions:** Modified True or False. If the underlined statement is correct, write the word TRUE, but if it is false, write the correct answer on a sheet of paper.

1. The research design must summarize the main idea of the study.
2. The research title can be written in a question form or an exclamation statement.
3. Personal interest is one of the important criteria of a research title.
4. The starting point of any research is the identification and definition of the research problem.
5. Descriptive research is a good design to use for comparisons of two variables of a population or a phenomenon.
6. Experimental research is a good design if you want to utilize scientific method to test cause-and-effect relationships under conditions controlled by the researcher.
7. An existing problem in your classroom can be considered as a research problem.
8. The scope of the study must be stated in the Statement of the Problem.
9. Correlational research is used to gather information from groups of people by selecting and studying samples chosen from a population.
10. Choose a title that is a phrase rather than a complete sentence.

**Test II. Directions:** Improve the research titles below.

1. Higher Order Thinking Skills in Reading  
\_\_\_\_\_

2. Establishment in Barangay Maginhawa, Albay  
\_\_\_\_\_



3. Life's Adjustment of Victims

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4. Health Practices During Covid-19

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5. Level of Acceptability of Performance Standards of Teachers

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**Suggested Enrichment/Reinforcement Activity/ies**

**Directions:** List down problems, issues, or line of interest that would be considered researchable, then formulate the research title. Write your answers on a separate sheet of paper.

Problem/ Line of Interest:

Research Design:

Proposed Title:

Problem/ Line of Interest:

Research Design:

Proposed Title:

Problem/ Line of Interest:

Research Design:

Proposed Title:

From among your three titles, which would you like to work on? (Contact your teacher and discuss your title)

## References

### Books

Esther, Baraceros. *Practical Research 2*. Quezon City: Rex Bookstore, Inc, 2016.  
Faltado, Ruben E. III, Medardo B. Bombita, Helen B. Boholano, and Angeline M. Pogoy.

*Practical Research 2: Quantitative Research*. Quezon City: Lorimar Publishing, 2016.

Ragma, Feljone. *Practical Research 2: Quantitative Research*. Intramuros  
Manila: Mindshapers Co., Inc., 2019.

Quarter: 1

Week: 4

**Competency: States research questions (CS\_RS12-Id-e-4) and Indicates scope and delimitation of the study (CS\_RS12-Id-e-5).**

## Readings/Discussions

### Statement of the Problem

This is the basic difficulty, the issue, the area of concern, the circumstances which exist then, and how they ought to be. The researcher should give the background which led to these circumstances that exist. Briefly describe the condition or situation that exists which is perceived as something less than the ideal; or what it should be and how you see it to be. Answer the following questions: What are the reasons for this circumstance? Can it be answered or is it possible to solve it or change it? What are the specific problems that the study aims to answer?

The statement of the problem tells what is done to make the situation that exists more like what it should be. It exposes anything that is wrong with the situation or condition or circumstance which is being described. It has two main elements:

#### **1 Objective or Purpose of the Study**

The objective or purpose of the study is the first part of the problem where the researcher states the object. This is a statement of a long-term objective expected to be achieved by the study. This is derived by the identification and crystallization of the research problem and as reflected in the title. *Example: "The main objective of this study is to..."*

# 2

## Research Questions or Investigative Problems

The specific questions which are to be answered in the study are called research questions or investigative questions and are all in question form. The answers to the research questions should lead to the solution of the research problem. Is the objective or purpose of the study observable, measurable or verifiable? Focus on a clear goal or objective. State the precise goal. The problem should be limited enough in making a definite conclusion possible.

1. The major statement or question maybe followed by minor statements or questions. The introductory statement must be the purpose/aim or the objective of the study.

*Example: Specifically, the study aims to determine the causes of low performance of selected programs in the board examinations. Further, it seeks answer to the following sub-problems: 1...2...3...etc."*

2. If the goal is specifically to test a given hypothesis then the state so. In many cases, the objective will be a more general statement than that of a hypothesis.

*Example: The primary objective of this study is to test the hypothesis that there is a relationship between workplace condition and teaching performance of faculty members.*

3. Investigative questions are the specific topical questions that one must resolve to achieve research objective or test the research hypothesis.

Research Title: Computer Education Program Implementation in the  
Division of Rizal SY 2015-2016

Objective or Purpose of the Study

*This study attempted to evaluate the status and extent of implementation of the Computer Education Program in the Division of Rizal SY 2015-2016 as perceived by teacher and student respondents. Specifically, this sought answers to the following questions:*

Research  
Questions  
or  
Investigative  
Problems

Reminder:  
The sub-  
research  
questions  
must be  
outlined  
properly.

1. *What is the profile of the respondents in terms of?*
  - 1.1 *Teacher-respondents*
    - 1.1.1 *sex.*
    - 1.1.2 *field of specialization.*
    - 1.1.3 *educational attainment.*
    - 1.1.4 *length of service and*
    - 1.1.5 *computer education seminar/training attended?*
  - 1.2 *Students-respondents*
    - 1.2.1 *sex*
    - 1.2.2 *monthly family income*
    - 1.2.3 *parent's educational background*
    - 1.2.4 *accessibility to computer; and*
    - 1.2.5 *performance in English and Mathematics?*
2. *What is the extent of the Computer Education Program implementation as perceived by the teacher-respondents with respect to?*
  - 2.1 *Objectives and content of instructions.*
  - 2.2 *Teaching competencies.*
  - 2.3 *Learning competencies.*
  - 2.4 *Methods of teaching employed; and*
  - 2.5 *Computer facilities?*
3. *What is the extent of the Computer Education Program implementation as perceived by the student-respondents with respect to?*
  - 3.1 *Objectives and content of instruction*
  - 3.2 *Teaching competencies*
  - 3.3 *Learning competencies*

## **Scope and Delimitation of the Study**

The **scope** describes the coverage of the study. It specifies what is covered in terms of concept, number of subjects or the population included in the study, as well as the timeline when the study was conducted.

**Delimit** by citing factors or variables that are not to be included and the boundary in terms of time frame, number of subjects, participants or respondents who are excluded. Specify that which you will not deal within the study.

It answers the basic question:

1. **What** – the topic of investigation and the variables included
2. **Where** – the venue or the setting of the research
3. **When** – the time frame by which the study was conducted
4. **Why** – the general objectives of the research
5. **Who**- the subject of the study, the population and sampling?
6. **How**- the methodology of the research which may include the research design, methodology and the research instrument

It may also discuss why certain variables were not included in the research.

Example:

*This study aimed to evaluate the status and extent of implementation of the Computer Education Program in the Division of Rizal for the School Year 2015- 2016. It considers the personal information of both teachers and students such as sex, field of specialization, educational attainment, length of service, trainings attended, family income, educational background, accessibility of the computer and performance in both English and Mathematics to serve as the profile of the respondents. The extent of Computer Education Program Implementation was also elicited through considering the teaching and learning competencies, teaching techniques and content of instruction.*

*However, because the time and funds are quite limited, the researcher covers only forty percent (40%) of the total population. Sixty (60) out of one hundred fifty (150) teachers and one thousand two hundred (1200) out of three thousand (3000) students were randomly chosen to answer the questionnaires.*

### **Exercise:**

**Directions:** AGREE or DISAGREE. Write PAK GANERN! if you agree with the given statements and write LIGWAK GANERN! if you disagree in a separate sheet of paper.

1. The statement of the problem summarizes the whole research study.
2. Alphabetical letters can also be used in outlining the research questions especially in sub-questions.
3. Scope and delimitation are the same in research so you can choose to write

only one of the two.

4. Proper outlining of the research questions is not really that important.
5. It is ok not to include the objective of the study. The research questions are the most important part of the statement of the problem.
6. All the questions in the statement of the problem must be answered at the end of the study.
7. In writing the Scope and Delimitation of the study, all Wh- questions must be addressed.
8. Scope and Delimitation of the study should always be written after the Statement of the problem.
9. Delimitations in the study entail the accepted shortcomings in conducting the research.
10. The participants of the study must be stated in the Statement of the Problem.

### Assessment:

**Directions:** With the given research titles below, formulate Statements of the Problem and Scope and Delimitation of the Study. Write your answers in a separate sheet of paper.

1. Curfew Implementation in the Municipality of Maharlika: Proposed Program Plan
2. The Exit Preferences of the Grade 12 Students in Maharlika National High School for SY 2019-2020: Proposed Higher Education Exit Guide
3. Academic Dishonesty among the Senior High School Students of Maharlika National High School: Proposed Assessment and Learning Activities

### Suggested Enrichment/Reinforcement Activity/ies

**Directions:** From your proposed and approved (by your research teacher) research title in your module 3, formulate Statement of the Problem and Scope and Delimitation of the Study from it. Write your answers on a separate sheet of paper.

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(Research Title)

Statement of the Problem  
Scope and Delimitation of the Study

### References

#### Books

Esther, Baraceros. *Practical Research 2*. Quezon City: Rex Bookstore, Inc, 2016.

Faltado, Ruben E. III, Medardo B. Bombita, Helen B. Boholano, and Angeline M. Pogoy. *Practical Research 2: Quantitative Research*. Quezon City: Lorimar Publishing, 2016.

Ragma, Feljone. *Practical Research 2: Quantitative Research*. Intramuros Manila: Mindshapers Co., Inc., 2019.