SENIOR HIGH SCHOOL

Department of Education
National Capital Region
SCHOOLS DIVISION OFFICE
MARIKINA CITY

Practical Research 2

Quarter 2-Module 1
Quantitative Research Design

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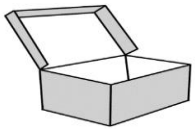


What I Need to Know

Good day Senior High School Students! In this lesson, you are going to learn how to:

Choose appropriate quantitative research design (CS_RS12-IIa-c-1)

Moreover, in this lesson, you will learn concepts and do practice activities that will help you do the following:

1. explain the meaning of quantitative research design;
2. enumerate the kinds of quantitative research design;
3. utilize the features of each quantitative design in choosing the appropriate research design for your study; and
4. utilize the criteria in choosing a research design for your research proposal.

What I Know

Before you proceed to the different activities inside the module, answer first this ***pre-assessment activity*** below to find out what you already know about the topic of designing a research used in daily life.

Select your answers from the options provided after each item. Choose the letter of the correct answer and write it before the number.

1. Which of the following is a master plan that are methods and procedures for collection and analyzing the needed information?
   A. Research Approach
   B. Research Design
   C. Research Methodology
   D. Research Problem

2. Ana is in the stage of formulating hypothesis in order to state the guess of what may not be true or may be true about the result. What type of research design is used in this stage?
   A. Comparative design
   B. Descriptive Design
   C. Experimental research design
   D. Non-Experimental Design

3. Which of the following shows the extent and direction of variable relationship whether it is negative or positive relationship?
   A. Comparative
   B. Correlational design
   C. Descriptive
   D. Survey

4. How does the participant being selected in the true-experimental research design?
   A. Categorized Selection
   B. Purposive Selection
   C. Random selection
   D. Stratified Selection

5. Which research design allows the researcher to employ survey to a sample or the entire population in order to describe attitudes, preference, point of view, perceptions, feelings or behavioral pattern?
   A. Comparative
   B. Correlational design
   C. Descriptive
   D. Survey

Lesson 1

Quantitative Research Design

What's In

In your previous grade level, you have learned the process of selecting or choosing the appropriate qualitative research design in Practical research 1 subject.

This activity will test your memory and understanding regarding the qualitative research design discussed in your practical research 1 subject. Your task is to discuss the following statement.

1. Enumerate all the qualitative research design.

_____
_____
_____
_____
_____

2. Choose one qualitative research design on your answer in item #1 and describe how this design is being used in the conducting a qualitative research

_____
_____
_____
_____
_____
_____

What's New

A. Preliminaries:

1. Motivation: Rearrange the letters to form a word pertaining to research.

Set A

1. E P E X I R E M N A T L _____
2. T U R E- E P E X I R E M N A T L _____
3. Q A U I S- E P E X I R M N A T L _____
4. M T A C E H D – C M P O A I R S O N _____
5. T M I E- S R E I E S _____
6. R A E P E T D M A E S R U E _____

Set B

1. O N N – E P E X I R E M N A T L _____
2. D S E C I R T P I V E _____
3. C M O P A A R T I V E _____
4. C R R E O L A I T V E _____
5. S R U E V Y _____

2. Unlocking of Difficulties:

Rewrite your answers in #1(Motivation) on set A and B. Then, on each item, encircle at least 3 words/phrases/sentences that are synonymous to the word on the blank.

Set A

_____1	Experiment; Traditional Approach; Narrative; testing Variables; Written Analysis
_____2.	Random selection of participants; participants were selected purposively; free from biased; prone from bias
_____3.	Establish cause-effect relationship; participants were selected purposively; free from biased; prone from bias; it examines the theory occurs in the study
_____4.	Participants are from treatment group; participants are from control group; participants have close similarities; participants are not similar; participants with close similarities are selected based on one or more important variables
_____5.	Multiple series of test; series of treatment and observation; randomly selected participants; one-group; two-group
_____6.	Single group; two group; experimental treatment; non-experimental treatment; all participants in single group

Set B

_____1.	Experiment; no manipulation of variable; measures variable occurs naturally; no measure independent variable only; non-experiment
_____2.	Describe the variables; experiment the variables; survey the variables; no variables manipulated; variables are manipulated

_____3.	Similarities and differences of each variable; comparing different two related groups; comparing two separated groups; manipulation of independent variable; manipulation of dependent variable
_____4.	Statistical relationship; descriptive; describe the degree of association of two variables; experimenting variables; describe the degree of association of one variable
_____5.	Survey respondents; non-survey respondents; data collected through experiment; surveyed data are correlated; data are collected through survey

From the "Unlocking of Difficulties" part, choose 1 item there from set A and set B. Then, construct your own sentence using the 3 words/phrases/sentences that you've chosen in each number.

Item # in Set A (word: _____)
Sentence:
_____
_____.

Item # in Set B (word: _____)
Sentence:
_____
_____.

Let's analyze:

1. What is the common word that you have found in each item in set A and in Set B from the motivation activity and unlocking of difficulties?
   _____
   _____
   _____
2. In the motivation activity, which item number served as the general term for set A and for set B?
   _____
   _____
   _____
3. Based on your answer in unlocking of difficulties in which you selected 3 related terms on the word you formulated in the motivation activity and constructed a sentence using the 3 related terms, how does it differ to the description of qualitative research designs that you have studied during your grade 11?
   _____
   _____
   _____

What is It

In conducting a quantitative research, research design is very important because it serves as the back bone of the research. It helps the research on how to come across the process of gathering data, to determine the type of research instrument to be constructed, to gather data, to determine the population, sample size, and proper sampling to be done, and to come up with findings or the result of the study. This lesson will help you to determine the general types of quantitative research design in order for you to choose the appropriate quantitative research design for your proposed research title.

There are two general types of quantitative research design, the **experimental research design** and **non-experimental research design**.

Experimental research design- Creswell (2014) stated that it is the traditional approach in conducting quantitative research. This research design is based on the research method solely on a scientific activity called experiment. When a researcher conducts an experiment, he/she is testing an idea (practice or procedure) to determine whether it affects or influence either the dependent variables or the outcome of the study.

In addition, Creswell (2014) mentioned that when the researcher uses experimental research design, he/she wants to establish a possible cause and effect between the dependent variables and independent variables. Moreover, Bhat (2017) stated that experimental research design is the practical method of contributing in the process of solving a problem at hand. The independent variable is being manipulated to monitor the changes it has on the dependent variable.

Types of Experimental Research Design

1. True-Experiment research design

As cited by Baraceros (2016) in the work of De May (2013) and Creswell (2013), this type of experimental research design can be recognized because of its design in which participants are randomly selected. Therefore, it is free from bias. This research design is the best way to examine the causal relationship.

Individuals or participants who are randomly selected in the true experimental research is being categorized either in CONTROL or EXPERIMENTAL group. Both groups will undergo in pre-test and post-test, however, during the treatment process, only the experimental group will undergo in the treatment process. As reflected in this table from Creswell (2014), it reflects the process of doing true-experimental research using the pre-test and post-test design.

Process of True-Experiment Process

(Group A-Participants) Random Assignment	Control group ⇨	Pre-test ⇨	No treatment ⇨	Post-test
(Group B-Participants) Random Assignment	Experimental Group ⇨	Pre-test ⇨	With treatment ⇨	Post-test

In this figure, how does the participant being selected?

_____

_____

2. Quasi-Experimental

This type of experimental design has its limitations because the researcher is selecting the participants purposively instead of random selection. Baraceros (2016) stated that experimental design is incapable of establishing cause and effect relationship.

(Group A purposively selected participants) →	Control group →	Pre-test →	No treatment →	Post-test
(Group B purposively selected participants) →	Experimental Group →	Pre-test →	With treatment →	Post-test

Based on this figure, which group received treatment and which do not receive treatment?

_____

_____

_____

The researcher assigns two groups which are purposively selected, one is the control group and the other one is experimental group. Using this pre-test and post-test design, both control and experimental group undergoes in pre-test and post-test design. However, only the experimental group will receive the treatment process after conducting a pre-test.

3. Matched Comparison Group

In this type of research design, instead of selecting participants for the control group, the researcher will get a participant that shows close similarities with experimental or treatment group based on one or more important variable.

4. Time-Series Design

A research design which consists of studying one-group of respondents over time with multiple series of pre-test and post-test, and observation by researcher. Baraceros (2010), pointed out that the purpose of series of observation is to see the connection between pre-test and post-test based on taking place of the treatment or condition.

As reflected in the table below by Creswell (2014), it shows the process of conducting time-series design using two variation design of time series. The **interrupted time series,** in which one group is obtaining multiple pre-test and observation for a period of time followed by conducting an intervention or activities, then it measures the outcome through conducting multiple series of post-test or observation. On the other hand, the researcher is doing an **equivalent time series**, he/she alternates a treatment with a post-test measure.

Interrupted Time Series design							
time →							
Select participants groups	Pre-test measure or observation	Pre-test measure of observation	Pre-test measure of observation	Intervention	Post-test measure of observation	Post-test measure of observation	Post-test measure of observation

Based on the descriptions and in this figure, how many tests is being done in the experiment using the interrupted time series-design?

_____

_____

Equivalent Time Series Design							
time →							
Select participants groups	Measure or observation	Intervention	Measure or observation	Intervention	Measure or observation	Intervention	Measure or observation

In the equivalent time series design, how does the experiment being done as described in this figure?

_____

_____

_____

5. Repeated Measure Design

In this research design, all participants belong to the single group receives experimental treatment. The researcher will compare the performance of the single group in the first experimental treatment to their performance under the new experimental treatment. The table below describes how repeated measure design is being conducted.

Repeated Measure Design					
Time →					
Select participants for a single group	Measure or observation	Experimental treatment #1	Measure or observation	Experimental Research #2	Measure or observation

Types of Non-Experimental Design

The second general type of research design does not involve manipulation of control or independent variable. In non-experimental research, researchers measure variables as they naturally occur without any further manipulation.

1. **Descriptive research design**- this type of research design under non-experimental describes a population, situation, or phenomenon.
2. **Comparative research design**- this research design states the difference or similarities between two or more groups.
3. **Correlational research design**- a type of research design involves observing two variables in order to establish a statistical correlation between them either positive or negative correlation. In addition, Baraceros (2016) stated that correlational research describes and measures the degree of association or relationship between two variables.
4. **Survey research design**- a research design in which the researcher employs survey to a sample or the entire population in order to describe attitudes, preference, point of view, feelings, or behavioral patterns.

Criteria for Selecting a Research Design

Creswell (2008) enumerated the following criteria to be considered in selecting research design:

1. **Research Problem-** as the main concern of conducting research, a researcher should know what the research problem is. If the problem calls for determining the factors that affect or influence the outcome, if the research problem or utilizing a method or intervention in solving a problem, and if the researcher can understand the predictors of the outcome or result, then quantitative research design is appropriate to the proposed research problem.

   In addition, if the research problem and research title seek to describe a phenomena or current status as identified variable then use DESCRIPTIVE DESIGN. If the research problem seeks to determine the extent of relationship between two or more variables, then use CORRELATIONAL DESIGN. Lastly, if the research problem or research title seeks to establish cause and effect relationships and need to conduct PRE-TEST, INTERVENTION, and POST-TEST, then use EXPERIMENTAL DESIGN.

2. **Personal Experience**- researcher's own personal training and experiences may be considered as one of the factors that influence the research in selecting the research design. As mentioned by Creswell (2008), since quantitative research/studies are the traditional mode of research in which researchers are fully working out with the procedure and rules that exist, researcher may also prefer to work in a highly systematic procedure of quantitative approach.

3. **Audience**- Since the target of the research study is to be disseminated to the audience, researcher should know the audience well. Teachers, other students, panelist, external validators, and other professionals may read the research conducted. Therefore, student or researcher should consider the approaches typically supported with many references and various researches conducted that used the suggested approaches. Students or researchers may also seek the suggestions of the research teacher or adviser in order to guide them in choosing quantitative design that is appropriate to their proposed study.

What's More

Answer the activities that will follow to practice your knowledge and skill about designing a research used for daily life.

Activity 1. FROM TITLE TO DESIGN!

Identify the appropriate research design in the given research title. Choose your answer on the choices below.

True Experimental	Quasi-Experimental	Matched-comparison
Time-series design	Repeated Measure	Descriptive design
Correlational design	Comparative design	Survey Design

_____1. TASK-BASED INSTRUCTION IN TEACHING ORAL ENGLISH: A BASIS FOR ENHANCING MODULE IN ORAL ENGLISH.

_____2. PERCEPTIONS OF GRADE 11 AND GRADE 12 STUDENTS OF GENERAL ACADEMIC STRAND IN USING ENGLISH LANGUAGE IN SPECIALIZED COURSES

_____3. COMPARATIVE ANALYSIS OF MARKETING STRATEGEIS OF SELECTED SHOE STORE IN MARIKINA: A BASIS FOR MARKETING STRATEGIES ENHANCEMENT

_____4. SATISFACTION LEVEL OF RESIDENTS TO THE FACILITIES AND SERVICES OF SELECTED BARANGAY HEALTH CENTER IN MARIKINA CITY

_____5. THE RELATIONSHIP OF USING FACEBOOK ON GENERAL AVERAGE OF GRADE 12 STUDENTS OF TAÑONG HIGH SCHOOL SY 2018-2019.

_____6. TIME-SERIES ANALYSIS OF THE LEVEL OF THE READING PERFORMANCE OF THE SECOND YEAR HIGH SCHOOL STUDENTS OF OUR LADY OF PEACE SCHOOL, ANTIPOLO CITY UNDER THE READING PROGRAM: BASIS FOR A PROPOSED ENHANCED INSTRUCTIONAL PLAN

_____7. ANALYSIS OF THE EFFECT OF WRITING ACTIVITY IN MATHEMATICS ON THE MATHEMATICS ACHIEVEMENT OF THIRD GRADE ENGLISH LANGUAGE LEARNERS AND ENGLISH SPEAKERS THROUGH REPEATED MEASURE DESIGN

_____8. INVESTIGATING THE EFFECTS OF PROJECT BASED LEARNING ON STUDENTS' ACADEMIC ACHIEVEMENTS AND ATTITUDE TOWARDS ENGLISH LESSON.

_____9. IMPACT OF A NEW TEACHER COMPENSATION MODEL ON THE READING ACHIEVEMENT OF NINTH GRADERS ON THE STATE ASSESSMENT.

Activity 2 RESEARCH DESIGN SKELETAL PART 1

Fill up the following information needed in the research design skeletal part 1 using your output in the previous modules that you have answered in Practical Research 2 quarter 1.

1. Your proposed research problem in Module 4 (Quarter 1):	
2. Your proposed research title in Module 5 (Quarter 1):	
3. Variables in your research title:	
• Independent variable/s	
• Dependent Variable/s	
4. Based on your research title, what problem is being tested using your independent and dependent variables?	
5. Your proposed research questions/statement of the problem	
6. What is your proposed research hypothesis in your module 11 (Quarter 1)?	

Activity 3 RESEARCH DESIGN SKELETAL PART 2

After reviewing and determining the introductory part of your proposed research paper in activity 2, this time you will choose the appropriate quantitative research design for your proposed research paper. Read first the questions and encircle your chosen answer given in the options.

A. Survey

1. Is there an experiment that needs to be conducted?	YES	NO
If your answer in question #1 is YES, do you need to conduct the following?		
• Pre-test	YES	NO
• Intervention	YES	NO
• Post-test	YES	NO
If your answer in question #1 is NO, proceed to question #2		

2. Is there a need to describe or to survey a certain variables or elements in your research title?	YES	NO
3. Based on your proposed research title, is there a need to compare your variables in the conduct of the study?		
4. Is there a need to determine the extent of relationship among your independent and dependent variable/s?	YES	NO

B. Processing questions

1. If your answer in questions #1 is YES, what quantitative research design is appropriate to your study?

   _____

   _____

2. What quantitative research design is employed in Question #2?

   _____

   _____

3. Question #3 is asking you if there is a need to compare variables in your proposed research title, if your answer is YES, what quantitative approach will you use in your study?

   _____

   _____

4. If you think you need to determine the extent of relationship among the variables in your proposed research title as reflected in question #4, what is the appropriate quantitative research design needed in your proposed study?

   _____

   _____

What I Have Learned

In this lesson, we focused on choosing the appropriate quantitative research design. Specifically:

1. What is the difference between the experimental and non-experimental research design?

   _____

   _____

   _____

2. What are the types of experimental design and non-experimental design?

   _____

   _____

   _____

3. State the factors that the researcher may use in selecting appropriate quantitative research design.

   _____

   _____

   _____

What I Can Do

Apply what you have learned on choosing the appropriate quantitative research design. Based on the research title you formulated, fill in the information being asked below.

1. Your proposed Research Problem:
   _____
   _____
2. Your proposed Research title:
   _____
   _____
3. Your proposed Research questions/statement of the problem:
   _____
   _____
4. Your chosen quantitative design:
   _____
   _____
5. Explain, what are the factors or your reasons in choosing this quantitative research design for your proposed research title:
   _____
   _____

Assessment

Showcase the knowledge and skills you have learned in this lesson by answering the assessment activity below.

Assessment Activity

Determine the type of quantitative research design being described in each statement. Write your answer on the space provided before the number.

_____1. It is the plan and the procedure that span the discussion from broad assumptions to detailed methods.

_____2. It is a quantitative research design that is solely based on a scientific activity called experiment.

_____3. This quantitative research design is considered free from any bias because participants or respondents in the study are chosen randomly.

_____4. The type of quantitative research design which is prone to bias because the participants or respondents in the study are chosen purposively. It usually employs pre-test, intervention, and post-test.

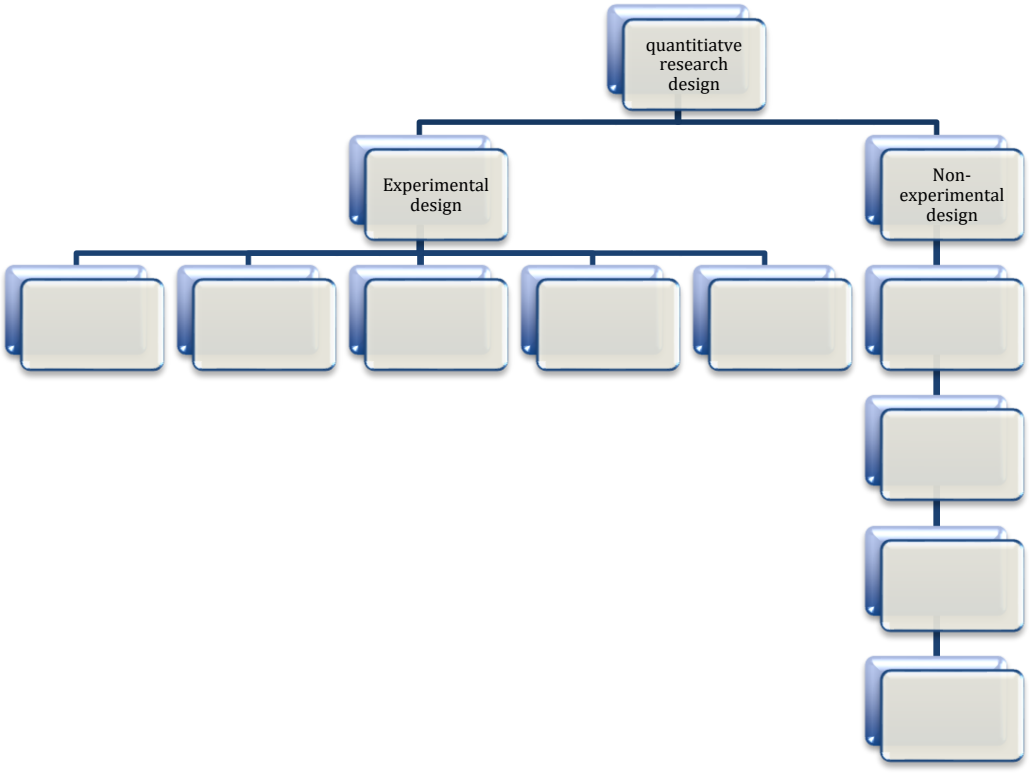
_____5. This quantitative research design is used when the researcher will choose the participants that shows close similarities with experimental or treatment group based on one or more important variables.

_____6. It is a quantitative research design in which the researcher will choose one group of respondents and will study it over time using multiple series of pre-test, post-test, and measures and observations.

_____7. This quantitative research design will compare the performance of the single group in the first experimental treatment to their performance in another experimental treatment.
_____8. It is a type of quantitative research design that does not involve manipulation of control or independent variable.
_____9. It is a quantitative research design which describes a population, situation, or phenomenon.
_____10. This quantitative research design states the differences and similarities between two or more groups.
_____11. It is a type of quantitative research design which involves observing two variables in order to establish a statistical correlation between them either positive or negative correlation.
_____12. This research design involves employing survey to a sample or entire population in order to describe attitude, preferences, or behavioral patterns.

Additional Activities

Complete the graphic organizer by supplying the keywords needed below in order to see the categorization of quantitative research design.



Post Test

Write the letter of the correct answer on the space before the number.

1. How does the participants is being selected in True-Experimental Research Design?
   A. The participants were selected through purposive sampling
   B. The participants were selected through random sampling
   C. The participants were selected through stratified sampling
   D. The participants were selected through fishbowl sampling

2. In conducting Quasi-Experimental research, which group of participants received does not received treatment?
   A. Control group
   B. Experimental Group
   C. Both control and Experimental group
   D. Neither control or experimental group

3. In this, research design, only the single group receives experimental treatment
   A. Matched Comparison design
   B. Repeated measure design
   C. Quasi-Experimental Design
   D. Time-series design

4. It describes the population, situation, or phenomenon being studied
   A. Comparative design
   B. Correlational design
   C. Descriptive
   D. Survey Design

5. The following statements best describe the correlational design **except**:
   A. It can show a positive correlation when variable postively increase or lead to another variable
   B. It can show a negative variable when it is literally opposite with positive correlation
   C. It states the similarities and differences between or among the groups being studied.
   D. It measures two variables to understand and assess its relationship

6. What type of experimental research is used in this research title "The effectiveness of family planning programs evaluated with experimental designs-by K E, Bauman"
   A. Experimental
   B. Quasi-Experimental
   C. Time-Series
   D. True-Experimental

7. In this research entitled "students ' perceptions and intended use of digital recording technology in a college technology classroom (Bahorski, 2009), what type of experimental research design is used?
   A. Experimental
   B. Quasi-Experimental
   C. Time-Series
   D. True-Experimental

8. Which among the following titles used Match-Comparison design?
   A. A Comparative Study Of Cognitive And Non-Cognitive Factors Relationship To Academic Success For Foreign Master's Students (Stephenson, 2004).
   B. Accelerated longitudinal comparisons of aggressive versus delinquent syndromes (Stanger, C et al, 1997).
   C. A quasi-experimental study of after-event reviews and leadership development.
   D. Evaluate of Teachers' attitudes about using technology in the classroom (https://www.questionpro.com/blog/descriptive-research/)

9. The following statements can best describe True-Experimental research design **except**:
   A. The design intends to conduct a series of experiment and observation over a period of time
   B. Data are set of observations on the values that a variable takes at different times
   C. Time-Series can also viewed as the exemplar longitudinal research design
   D. Its goal is to find the significant relationship of the variables being tested

10. It is considered as the blue print of research paper which the methods and procedures for collection and analyzing the needed information.
   C. Research Approach
   C. Research Methodology
   D. Research Design
   D. Research Problem

11. It shows the extent and direction of variable relationship whether it is negative or positive relationship.
   A. Survey
   C. Comparative
   B. Descriptive
   D. Correlational design

12. Liza is in the stage of formulating hypothesis in order to state the guess of what may not be true or may be true about the result. What type of research design is used in this stage.
   A. Comparative design
   B. Descriptive Design
   C. Experimental research design
   D. Non-Experimental Design

13. It is a research design in which researcher employ survey to a sample or the entire population in order to describe attitudes, preference, point of view, perceptions, feelings or behavioral pattern.
   A. Comparative
   C. Descriptive
   B. Correlational design
   D. Survey

14. The following statements are the characteristics of research design except:
   A. It can use statistical treatment to generalize findings
   B. It assumes sample is the representative of population
   C. It test proves the assumption in the research
   D. It is more reliable and valid

15. This quantitative research design is considered free from any bias because participants or respondents in the study are chosen randomly.
   A. Experimental
   C. Time-Series
   B. Quasi-Experimental
   D. True-Experimental

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Answer Key

EXPERIMENTAL	NON-EXPERIMENTAL
TRUE EXPERIMENTAL	DESCRIPTIVE DESIGN
QUASI-EXPERIMENTAL	COMPARATIVE DESIGN
TIME-SERIES DESIGN	CORRELATIVE DESIGN
REPEATED MEASURES	SURVEY DESIGN

Additional Activities

1. Research design
2. Experimental design
3. True-experimental design
4. Quasi-experimental design
5. Matched comparison design
6. Time-series design
7. Repeated measure design
8. Non-experimental design
9. Descriptive design
10. Comparative design
11. Correlational design
12. Survey design

Assessment Activity (page 16)

1. Research design
2. What are type of experimental design and non-experimental design?

Answer: Experimental design as stated in the discussion, that it is the traditional approach in conducting quantitative research and its method is solely on the scientific activity called experiment. The various of experimental designs are TRUE-EXPERIMENTAL, QUASI-EXPERIMENTAL, MATCH-COMPARISON, TIME-SERIES DESIGN, and REPEATED MEASURE DESIGN. While Non experimental design is a type of research design that does not involve manipulation or control of independent and dependent variable. In this research design, the researcher measures variables as they naturally occur without any further manipulation the variations of experimental designs are DESCRIPTIVE, COMPARATIVE, CORRELATIONAL, and SURVEY DESIGN.

3. State the factors that the researcher may use in selecting appropriate quantitative research design

Answer: As stated by Creswell (2008), RESEARCH PROBLEM, PERSONAL EXPERIENCE, and AUDIENCE are the three factors that the researcher should consider in choosing research design for your proposed research paper

What I can do (page 15): answers may varies depending on the proposed research problem of the students

5. Time-series — **Multiple series of test**; **series of treatment and observation**; randomly selected participants; **one-group**; two-group.

6. Repeated measure — **Single group**; two group; **experimental treatment**; non-experimental treatment; **all participants in single group**

SET B

1. Non-experimental — Experiment; **no manipulation of variable**; **measures variable occurs naturally**; no measure independent variable only; **non-experiment**.

2. Descriptive — **Describe the variables**; experiment the variables; survey **the variables**; no **variables manipulated**; variables are manipulated.

3. Comparative — **Similarities and differences of each variable**; **comparing different two related groups**; comparing two separated groups; **manipulation**

4. Correlative — **Statistical relationship**; descriptive; **describe the degree of association of two variables**; experimenting variables; **describe the degree of association of one variable.**

5. Survey — **Survey respondents**; non-survey respondents; data collected through experiment; **surveyed data are correlated**; **data are collected**

Choose 1 item number from set A and set B and construct your own sentence using the 3 words/phrases/sentences that you've chosen in each number. **(Answers may vary, depending on how the students constructed the sentence)**

LET'S ANALYZE

1. What is the common word that you have found in each item in set A?
   Answer: the common word found in set A is **EXPERIMENTAL**

2. What is the general form or main type of research design that can be found from numbers 1-6 of set A?
   Answer: the general form or main type of research design found in set A is EXPERIMENTAL design.

4. Based on your answer in unlocking of difficulties in which you selected 3 related terms on the word you formulated in motivation activity and constructed a sentence using the 3 related terms, how does it differ to the description of qualitative research designs that you have studied during your grade 11?
   Answer: based on my understanding, in qualitative research designs, it uses mostly in-depth analysis of the text, while in quantitative research designs use mostly experiments.

What is it?

In this figure, how does the participant is being selected? (page 8)
Answer: the participants are selected randomly

Based on this figure, which group received treatment and which do not receive treatment? (page 8)
Answer: the control group do not received treatment while the experimental group received treatment

Based on the descriptions and in this figure, how many tests is being done in the experiment using the interrupted time series-design? (page 9)
Answer: the figure shows that there are 3 pre-test and 3 post-test being conducted in interrupted time series-design

In the equivalent time series design, how does the experiment being done as describe in this figure? (page 9)
Answer; the experiment is being done every after each intervention

What's more

ACTIVITY 1 (PAGE 11)

1. Quasi-Experimental design
2. Descriptive design
3. Comparative design
4. Survey design
5. Correlational design
6. Time-series design
7. Repeated measure design
8. True-experimental design
9. Matched comparison design

ACTIVITY 2 AND ACTIVITY 3 (page 12 and 14): answers may varies depending on the proposed research problem of the students

What I have learned

1. What is the difference between the experimental and non-experimental research design?
   Answer: Quantitative research design has two general types; the EXPERIMENTAL and NON-EXPERIMENTAL RESEARCH DESIGN.

What I Know (pages 1-2)

1. B
2. C
3. B
4. C
5. C

What is in (page 3)

3. Enumerate all the qualitative research design

Answer: qualitative research designs are grounded theory, phenomenological, narrative, historical, Ethnographic, and mix-method

4. Choose one qualitative research design on your answer in item #1 and describe how this design is being used in the conducting a qualitative research

Answer: Narrative research aims to explore and conceptualize human experience as it is represented in textual form. Aiming for an in-depth exploration of the meanings people assign to their experiences, narrative researchers work with small samples of participants to obtain rich and free-ranging discourse. The emphasis is on storied experience. Generally, this takes the form of interviewing people around the topic of interest, but it might also involve the analysis of written documents.

What's new

1. Motivation (page 4)	
SET A	**SET B**
1. Experimental	1. Non-experimental
2. True-experimental	2. Descriptive
3. Quasi-experimental	3. Comparative
4. Matched comparison	4. Correlative
5. Time-series	5. Survey
6. Repeated measure	

1. Unlocking of Difficulties (page 4-5)

SET A

1. Experimental — **Experiment**; **Traditional Approach**; Narrative; **testing Variables**; Written Analysis
2. True-experimental — **Random selection of participants**; participants were selected purposively; **free from biased**; **it examines the causal relationship of variables**
3. Quasi-experimental — **Establish cause-effect relationship**; **participants were selected purposively**; free from biased; **prone from bias**; it examines the theory occurs in the study.
4. Matched comparison — Participants are from treatment group; **participants are from control group**; **participants have close similarities**; participants are not similar; **participants with close similatrie are selected based on one or more important variables.**
5. Time-series — **Multiple series of test**; **series of treatment and observation**; randomly selected participants; **one-group**; two-group.
6. Repeated measure — **Single group**; two group; **experimental treatment**; non-experimental treatment; **all participants in single group**

SET B

1. Non-experimental — Experiment; **no manipulation of variable**; **measures variable occurs naturally**; no measure independent variable only; **non-experiment**.
2. Descriptive — **Describe the variables**; experiment the variables; **survey the variables**; **no variables manipulated**; variables are manipulated.
3. Comparative — **Similarities and differences of each variable**; **comparing different two related groups**; comparing two separated groups; **manipulation of**
4. Correlative — **Statistical relationship**; descriptive; **describe the degree of association of two variables**; experimenting variables; **desoribe the degree of association of one variable.**

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