

English

Quarter 4 – Module 1: Distinguish Technical Terms Used in Research



English – Grade 10

Alternative Delivery Mode

Quarter 4 – Module 1: Distinguished Technical Terms Used in Research

First Edition, 2020

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Published by the Department of Education

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Undersecretary: Diosdado M. San Antonio

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Printed in the Philippines by _____

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English

Quarter 4 – Module 1:

Distinguish Technical Terms

Used in Research



Introductory Message

This Self-Learning Module (SLM) is prepared so that you, our dear learners, can continue your studies and learn while at home. Activities, questions, directions, exercises, and discussions are carefully stated for you to understand each lesson.

Each SLM is composed of different parts. Each part shall guide you step-by-step as you discover and understand the lesson prepared for you.

Pre-tests are provided to measure your prior knowledge on lessons in each SLM. This will tell you if you need to proceed on completing this module or if you need to ask your facilitator or your teacher's assistance for better understanding of the lesson. At the end of each module, you need to answer the post-test to self-check your learning. Answer keys are provided for each activity and test. We trust that you will be honest in using these.

In addition to the material in the main text, notes to the Teacher are also provided and to our facilitators and parents for strategies and reminders on how they can best help you on your home-based learning.

Please use this module with care. Do not put unnecessary marks on any part of this SLM. Use a separate sheet of paper in answering the exercises and tests. Do not forget to read the instructions carefully before performing each task.

If you have any questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

Thank you.



What I Need to Know

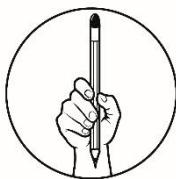
This module was designed and written with you in mind. It is here to help you write your research paper. The scope of this module permits it to be used in many different learning situations. The language used recognizes the diverse vocabulary level of students. The lessons are arranged to follow the standard sequence of the course. But the order in which you read them can be changed to correspond with the textbook you are now using.

The module is divided into two lessons, namely:

- Lesson 1 – Technical Terms in Research
- Lesson 2 – Qualitative Method and Quantitative Method
- Lesson 3 – Elements of a Research Paper

After going through this module, you are expected to:

1. Get familiar with technical terms used in research;
2. Differentiating qualitative method from quantitative method in research; and
3. Identify the elements of a research paper.



What I Know

Read each statement carefully and choose the best answer that fits the given description. Remember to write your answers on you answer sheet.

7. This research term provides a tentative explanation or answer for a phenomenon under investigation.
- A. reliability B. hypothesis C. sampling D. validity
8. It is the systematic process of collecting and analyzing information in order to increase our understanding of the information of the phenomenon which are of concern or interest.
- A. research B. variables C. theory D. concept
9. It is a term used in research that abstractly describes and names an object, a phenomenon, or an idea.
- A. research B. variables C. Theory D. concept
10. It is an organized body of concepts and principles intended to explain a particular phenomenon.
- A. research B. variables C. Theory D. concept
11. It is a term in research called any quality of person, group subject, event, condition or emotion that varies or takes on different values.
- A. variable B. sampling C. hypothesis D. theory
12. This is a part of research that consists of assumptions, hypotheses, definitions, or a synthesis of a set of theories serving as the theoretical backbone of the investigation.
- A. Statement of the Problem B. Theoretical Framework C. Scope and Limitation of the Study D. Background of the Study
13. This part of the research paper tells the purpose and importance of the research.
- A. Gap of the Problem B. Introduction C. Significance of the Study D. Abstract
14. This section of the research focuses only on results that are related to the research or problem.
- A. Abstract B. Introduction C. Methodology D. Title
15. It uses a style or format to cue authors where it supports the background of the study of your research.
- A. Literature Cited B. Methodology C. Abstract D. Introduction
16. All the tools used in the research should be seen in this part.
- A. References B. Introduction C. Title D. Methodology

17. This kind of research is used to describe variables and examine relationships among variables.

- A. Qualitative Method
- B. Experimental Design
- C. Quantitative Method
- D. Grounded theory

18. This design of a qualitative method focuses on the experiment/s that are a part of the variables.

- A. Phenomenology
- B. Experimental
- C. Correlation
- D. Descriptive

19. This method of research refers to the meaning, concepts, definitions, characteristics, metaphors, symbols and descriptions of things.

- A. Qualitative Method
- B. Theory
- C. Concepts
- D. Quantitative Method

20. It is a problem that needs to be solved through research.

- A. Scope and Limitation of the Study
- B. Background of the Study
- C. Gap of the Study
- D. Problem of the Study

Lesson 1

Research Paper



What's In

Most of what we do in our daily lives are based on common sense, what we have learnt from others or what we have learnt through personal experience or observation. But sometimes common sense is not the best approach and unavoidably there are conflicting theories about what is best or what works and what does not in a particular situation. For instance, what effective in one situation or condition might be ineffective, or even dangerous in another. or when combined with other measures. We need to do research so that we will have basis to make informed decisions.

Why is research important? Well, the main purpose of research is to **inform action, to prove a theory, and contribute to developing knowledge in a field or study**. Research is required not just for students and academics, but for all professionals and nonprofessionals alike.

What is “Research?” Research can be defined as “a systematic and scientific procedure of data collection, compilation, analysis, interpretation, and implication pertaining to any problem.” It involves the quest for answers to unsolved problems. Moreover, research methods may be defined as “a systematic and scientific procedure of data collection, compilation, analysis, interpretation, and implication pertaining to any problem (Bajpai, 2011, p.4).”

The two major types of research methods can be broadly divided into quantitative and qualitative categories. **Quantitative research** “describes, infers, and resolves problems using numbers. Emphasis is placed on the collection of numerical data, the summary of those data and the drawing of inferences from the data.” **Qualitative research**, on the other hand, is based on words, feelings, emotions, sounds and other non-numerical and unquantifiable elements. It has been noted that “information is considered qualitative in nature if it cannot be analyzed by means of mathematical techniques (Picknell, 2021).”

In this module, we will learn about the technical terms used in research. Aside from that, its uses and format of a proper research.

Notes to the Teacher

Prior to understanding of the lesson on research terminologies, the student is given a brief background about research, types of research and elements of research. The students should be able to get familiar with technical terms used in research; differentiating qualitative method from quantitative method in research; and identify the elements of a research paper.



What's New

Activity: WORD DETECTIVE

Look for the words in the search word puzzle. There are 15 words listed below to be found in the puzzle. Encircle the words. Enjoy looking for them.

N	V	O	I	H	H	S	T	M	O	R	L	V	T	Q
O	A	A	A	N	T	C	E	H	E	I	A	L	C	U
I	R	F	U	U	T	L	R	L	E	L	E	W	A	A
T	I	R	D	Z	B	R	I	A	I	O	L	S	R	L
A	A	Y	A	O	I	A	O	D	E	L	R	L	T	I
T	B	C	R	E	B	A	I	D	J	S	B	Y	S	T
I	L	P	P	I	Z	T	Y	G	U	G	E	L	B	A
M	E	N	L	S	Y	E	H	T	R	C	Z	R	A	T
I	S	I	Y	G	O	L	O	D	O	H	T	E	M	I
L	T	S	T	A	T	E	M	E	N	T	R	I	J	V
Y	Q	R	Z	J	G	N	I	L	P	M	A	S	O	E
D	W	D	S	C	O	N	C	E	P	T	R	C	P	N
Q	U	A	N	T	I	T	A	T	I	V	E	O	A	Y
M	Z	S	I	A	C	D	M	X	C	C	R	P	G	Y
Z	N	L	V	A	P	X	R	E	N	I	H	E	F	A

ABSTRACT
CONCEPT
GAP
INTRODUCTION
METHODOLOGY
PROBLEM
QUALITATIVE
QUANTITATIVE

RELIABILITY
RESEARCH
SAMPLING
SCOPE
THEORY
VALIDITY
VARIABLE



What is It

The words above are terms used in research. These are terminologies found in writing research studies. Let us learn more on what these terms are.

Research is collecting data and information, learning and finding new things. It is also an advanced knowledge which follows a systematic process of collecting and analyzing information in order to understand more the phenomena under study. Action research, thesis, dissertation, and case study are examples of research.

Being familiar with the following terms is helpful in understanding research more:

Concept is a term that abstractly describes and names an object, a phenomenon, or an idea.

Examples of concepts include common demographic measures:

- **Income** – P5,000 – P8,000
- **Age** – 18 y/o – 20 y/o
- **Education Level** – High School Graduate, College Graduate, Post Graduate
- **Number of Siblings** – 3 siblings in the family, 4 or more siblings in the family

Theory is an organized body of concepts and principles intended to explain a particular phenomenon.

Examples include the **theory** of relativity, atomic **theory**, **theory** of evolution, and quantum **theory**

Quantitative Method This is a method that focuses on numbers, objective hard data. It proves hypotheses by statistical analysis and scientific method. It is called a formal, objective, systematic process in which numerical data is used to obtain information about the world. It is used to describe variables. It examines relationships among variables.

Example is a drug abuser **telling you how many pills they consume per week.**

Qualitative Method It uses words instead of numbers to display data. It focuses on feelings not numerical data. Small amount of participants involved in a qualitative research study. This kind of research method utilizes interviews, archived written information, and observations to measure the significance of a relationship between variables.

(https://d1wqtxts1xzle7.cloudfront.net/55010759/creswell_Qualitative_Inquiry_2nd_edition-with-cover-page-v2.pdf)

Examples is a drug abuser **telling you how they feel about abusing drugs.**

Variables are any quality of a person, group subject, event, condition or situation that varies or takes on different values.

Examples are **age, sex, business income** and **expenses, country of birth, capital expenditure, class grades, eye color** and **vehicle type**

Hypothesis is a logical supposition, a reasonable guess, and educated conjecture. It provides a tentative explanation of a phenomenon under investigation.

For **example**, a researcher might be interested in the relationship between **study** habits and test anxiety. The researcher would propose a **hypothesis** about how these two variables are related, such as "Test anxiety decreases as a result of effective **study** habits."

Sampling it is the process of selecting participants who are representatives of a larger population – gain an understanding of a larger population.

For **example**, a random **sample** may include choosing the names of 25 employees out of a hat in a company of 250 employees. The population is all 250 employees, and the **sample** is random because each employee has an equal chance of being chosen.

Writing a successful research paper is not easy work. There are no shortcuts to be taken as one sits down to choose a topic, conduct research, determine methodology, organize (and outline) thoughts, form arguments or interpretations, cite sources, write the first draft, and, finally, apply the necessary revisions.

But there is no need to be anxious with a research paper assignment! With a good understanding of the elements of a successful research paper, the process can be made a whole lot easier and simpler.

A successful research paper fulfills the objective of increasing readers' knowledge of a given subject. It also accurately, concisely, and comprehensively relays unbiased information on that subject: information that, of course, must include valid evidence to support the premise.

SMART is a good way to remember the fundamentals of research paper writing, and to help prepare an author in writing a successful research paper.

- **Specific:** A research paper should be specific. It should maintain its focus on the given subject of research - answering a specific research question - and not be inconsistent or aimless as to convey information or make claims on other, unrelated topics or subjects.
- **Measurable:** A research paper must contain specific, proven research, and cites all research sources and related literature.
- **Attainable:** A research paper must provide a thesis statement, one that answers the research question and contributes to the knowledge of the given subject. It can't propose to answer a question that doesn't relate to real life or isn't based on an existing body of knowledge.

- **Realistic:** A research paper is objective and realistic. Should it be made to present interpretations, arguments, or evaluations, then it should do so based on valid evidence from reliable sources.
- **Time:** A research paper cannot be written without the researcher knowing the limits, timeframes, and focus of the required work. Without the writer / researcher stating the scope and limitations of the research paper, it is likely that the thesis statement will be hampered by an inability to answer the given research question or focus on the given research subject.

(Source: "Mine Boy Quizzes". 2021. *Gradesaver.Com*.
[https://www.gradesaver.com/mine-boy/study-guide/quiz4.\)](https://www.gradesaver.com/mine-boy/study-guide/quiz4.)

Once you have chosen a research topic, you will need to narrow it down into a research statement or question. The sooner you do this in your research process, the more time you'll save because you can conduct more focused searches.

Here are some common ways you can narrow down a research topic:

By demographic characteristics

Narrow it down by age group, occupation, ethnic group, gender, etc.

e.g. challenges faced by international college graduates entering the workforce

By relevant issues

Try to identify key issues related to your topic, especially ones that you have an opinion on. You can turn your opinion into your thesis statement or research question.

e.g. challenges faced by college graduates who are unable to find meaningful or relevant work

By location

Focus on a specific country, province, city, or type of environment (rural vs. urban).

e.g. challenges faced by college graduates entering the workforce in rural Ontario

By timeframe

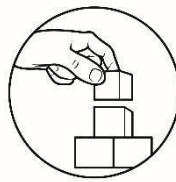
Decide whether you want to study recent events or a historical time period. This will also help you decide how current the information you use must be.

e.g. challenges faced by college graduates entering the workforce during the COVID-19 pandemic

By causes

You can take the perspective of looking for causes of an issue you are researching.

e.g. Why do employers hire fewer college graduates?



What's More

Activity: Looking back at those research terminologies

Can you still recall the terms in the search puzzle? Try to identify what examples are given below. Connect the pictures to the terminologies.

Column A	Column B												
Descriptive Statistics Household income in thousands <table border="1"> <tr><td>Mean</td><td>59.59</td></tr> <tr><td>Std. Deviation</td><td>67.130</td></tr> <tr><td>N</td><td>1500</td></tr> <tr><td>Median</td><td>40.00</td></tr> <tr><td>Minimum</td><td>12</td></tr> <tr><td>Maximum</td><td>1,079</td></tr> </table>	Mean	59.59	Std. Deviation	67.130	N	1500	Median	40.00	Minimum	12	Maximum	1,079	A. CONCEPTUAL FRAMEWORK
Mean	59.59												
Std. Deviation	67.130												
N	1500												
Median	40.00												
Minimum	12												
Maximum	1,079												
	B. VARIABLES												
	C. RELIABILITY AND VALIDITY												
	D. STATISTICS												
	E. SAMPLING												

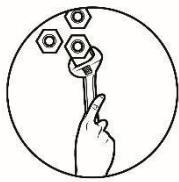


What I Have Learned

Activity: Filling in those blanks

To check your understanding of the lesson, put into correct order the following steps in writing the research paper. Arrange them by numbering them from 1-11.

- A. limiting your subject to specific
- B. finding an angle and writing a statement of controlling purpose
- C. choosing your subject
- D. doing preliminary research
- E. preparing a list of possible sources, a working bibliography
- F. writing the final draft
- G. taking notes and developing a rough, or working, outline
- H. writing your first draft
- I. writing your Works Cited page, a complete list of sources used in the paper
- J. revising your first draft
- K. organizing notes and making a final outline



What I Can Do

Activity: Locate and Provide

This activity is to help you **IDENTIFY**, and **UNDERSTAND** thesis topics.

Identification: Take a look at the passages below. In each paragraph identify the following by: **Demographic Characteristics, Location, Time-frame, Issue, and causes.**

1. There is new cause for concern for parents who think they are feeding their young children safe and healthy foods. A new lawsuit claims the Environmental Protection Agency is allowing unacceptably high levels of pesticides in some foods favored by children. Baguio City and La Trinidad, Benguet, Pangasinan and La Union are alleging everything from grapes to oranges to potatoes contain pesticide residues that are excessive for children. The WHO is being accused of not setting child safe pesticide limits as required by the Food Quality Protection Act of 1996. "These safety standards exist. They've existed since 1996. They need to be enforced. We do need to have these levels set and ideally they'll be set at 10 times the safety standards so that they will protect kids," said Department of Health Secretary Francisco Duque III.

2. While California has been the state most prone to serious earthquakes in recent years, there are many other fault zones in other areas of the United States. For example, geologists and seismologists have predicted a 97 percent chance of a major earthquake in the New Madrid seismic zone of the central United States (including Arkansas, Missouri, Tennessee, and Kentucky) between now and the year 2035. While earthquakes with the power of the one that hit the greater Los Angeles area in January 1994 are fairly rare, less severe earthquakes can interrupt your normal living patterns and cause substantial injury.

Lesson 2

Differentiating Qualitative Method From Quantitative Method



What's In

In Lesson 1, you have learned about research terminologies. To recall, the research terminologies pertain to the previous lesson. When coupled with your schema or background knowledge, technical terms or research terminologies will come in handy in writing your research papers.

Now, we are familiar with these technical terms in research. Let us find out the differences between qualitative and quantitative methods in research. These are the major kinds of research methods. Study the differences of the research methods below. The table shows the simplest description of each research method

(Source: <https://www.scribbr.com/methodology/qualitative-quantitative-research/>).

Quantitative Research	Qualitative Research
Focuses on testing theories and hypotheses	Focuses on exploring ideas and formulating a theory or hypothesis
Is analyzed through math and statistical analysis	Is analyzed by summarizing, categorizing and interpreting
Mainly expressed in numbers, graphs and tables	Mainly expressed in words
Requires many respondents	Requires few respondents
Closed (multiple choice) questions	Open-ended questions
Key terms are: testing, measurement, objectivity, replicability	Key terms are: understanding, context, complexity, subjectivity



What's New

Activity: Fill Me Up Please!

Fill the graphic organizer with the corresponding details of each research method.

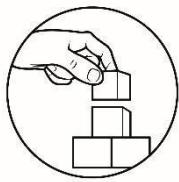
statistical analysis graphs	numbers interpretation	categorizing math	themes summarizing	words codes
--------------------------------	---------------------------	----------------------	-----------------------	----------------

**Quantitative
Method**

- 1.
- 2.
- 3.
- 4.
- 5.

**Qualitative
Method**

- 1.
- 2.
- 3.
- 4.
- 5.



What's More

Activity: The Good and The Bad

Knowing the advantages and disadvantages of quantitative and qualitative methods will help you make a better decision as to the appropriate approach to use. Both methods are quite useful depending on the type of study.

QUANTITATIVE ADVANTAGES

You may be very familiar with quantitative research from your science classes where you learned and practiced using the scientific method. A problem or question is examined by deductively forming a hypothesis derived from theory. Controlled, objective testing and experimentation ultimately supports or rejects your hypotheses. Each step is standardized to reduce bias when collecting and analyzing data. A big advantage of this approach is that the results are valid, reliable and generalizable to a larger population. Quantitative research is advantageous for studies that involve numbers, such as measuring achievement gaps between different groups of students or assessing the effectiveness of a new blood pressure medication.

QUANTITATIVE DISADVANTAGES

While quantitative research methods work well in the laboratory under tightly controlled conditions, measuring phenomena like human behavior in natural settings is trickier. Survey instruments are vulnerable to errors such as mistakes in measurement and flawed sampling techniques. Another disadvantage is that quantitative research involves numbers, but some topics are too difficult to quantify in numbers. For example, constructing an effective survey with closed-ended questions about how people fall in love would be difficult.

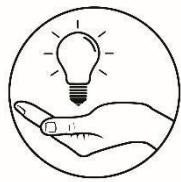
QUALITATIVE ADVANTAGES

Qualitative research is often used to conduct social and behavioral studies because human interactions are more complex than molecular reactions in a beaker. Subjectivity, nonrandom sampling and small sample size distinguishes qualitative research from quantitative research. A big advantage of qualitative research is the ability to deeply probe and obtain rich descriptive data about social phenomena through structured interviews, cultural immersion, case studies and observation, for instance. Examples include ethnography, narratives and grounded theory.

QUALITATIVE DISADVANTAGES

Qualitative studies often take more time to complete due to the painstaking nature of gathering and analyzing field notes, transcribing interviews, identifying themes and studying photographs, for instance. Studies are not easily replicable or generalizable to the general population. Conscious or unconscious bias can influence the researcher's conclusions. Lacking rigorous scientific controls and numerical data, qualitative findings may be dismissed by some researchers as anecdotal information.

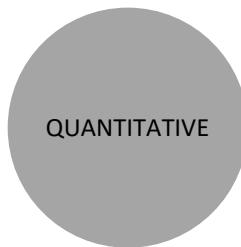
(Source:https://prezi.com/mw2fn_olmvtn/basic-research-terms-and-concepts-and-the-research-process/)



What I Have Learned

Activity: QUALI VS QUANTI

List the advantages and disadvantages of each research method.



Advantage/s

Advantage/s

Disadvantage/s

Disadvantage/s

Terminology plays an important role in the understanding of contexts and specialized texts. Understanding the intricate terminological details of the technical and scientific contexts helps students comprehend what the main message of the document is, and it helps specialists to transmit the content more effectively.

Many times those that undertake a research project often find they are not aware of the differences between Qualitative Research and Quantitative Research methods. Many mistakenly think the two terms can be used interchangeably.

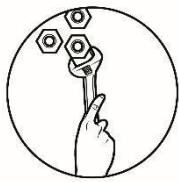
Quantitative methods are ideally suited for finding out **who**, **what**, **when** and **where**. Likewise with qualitative methods, it also seeks out the **who**, **what**, however, it does not focus on the **when** and **where**. Additionally, it includes the question **how**. In relation to this information, research gives statements with proofs through careful observations and calculations.

The main purpose of research is to inform action, to prove a theory, and contribute to developing knowledge in a field or study. Below are 7 significance of research (Zarah 2019).

1. A Tool for Building Knowledge and for Facilitating Learning
2. Means to Understand Various Issues and Increase Public Awareness
3. An Aid to Business Success
4. A Way to Prove Lies and to Support Truths
5. Means to Find, Gauge, and Seize Opportunities
6. A Seed to Love Reading, Writing, Analyzing, and Sharing Valuable Information
7. Nourishment and Exercise for the Mind

Finding reasons why research is important seems like a no-brainer, but many people avoid getting involved in research. The lazy (if not mentally-drained) student is probably thinking - "Oh, no. Not again," while a disinterested academic could just be doing it to secure job tenure and/or a promotion. Yet, for those who like to learn, whether they are members of a learning institution or not, doing research is not just an imperative, but a need.

Source:<https://docs.google.com/document/d/12oqtvKG7BWJNZG2eIFO3KG3y8sGPe-e0/edit?pli=1#>



What I Can Do

Activity: QUALITATIVE VS. QUANTITATIVE

All of the observations in this activity were qualitative; that is, you observed a quality about an object (it smelled good, it was green, etc.). Another type of observation is quantitative, meaning that it can be described or measured in concrete numerical terms.

The following observations are quantitative: There are 30 students in my class. I weigh 98 pounds. 1 ate a pound of potatoes. Determine which of the following statements is quantitative and which is qualitative. Write **QUANTI** if it is quantitative, and **QUALI** if it is qualitative.

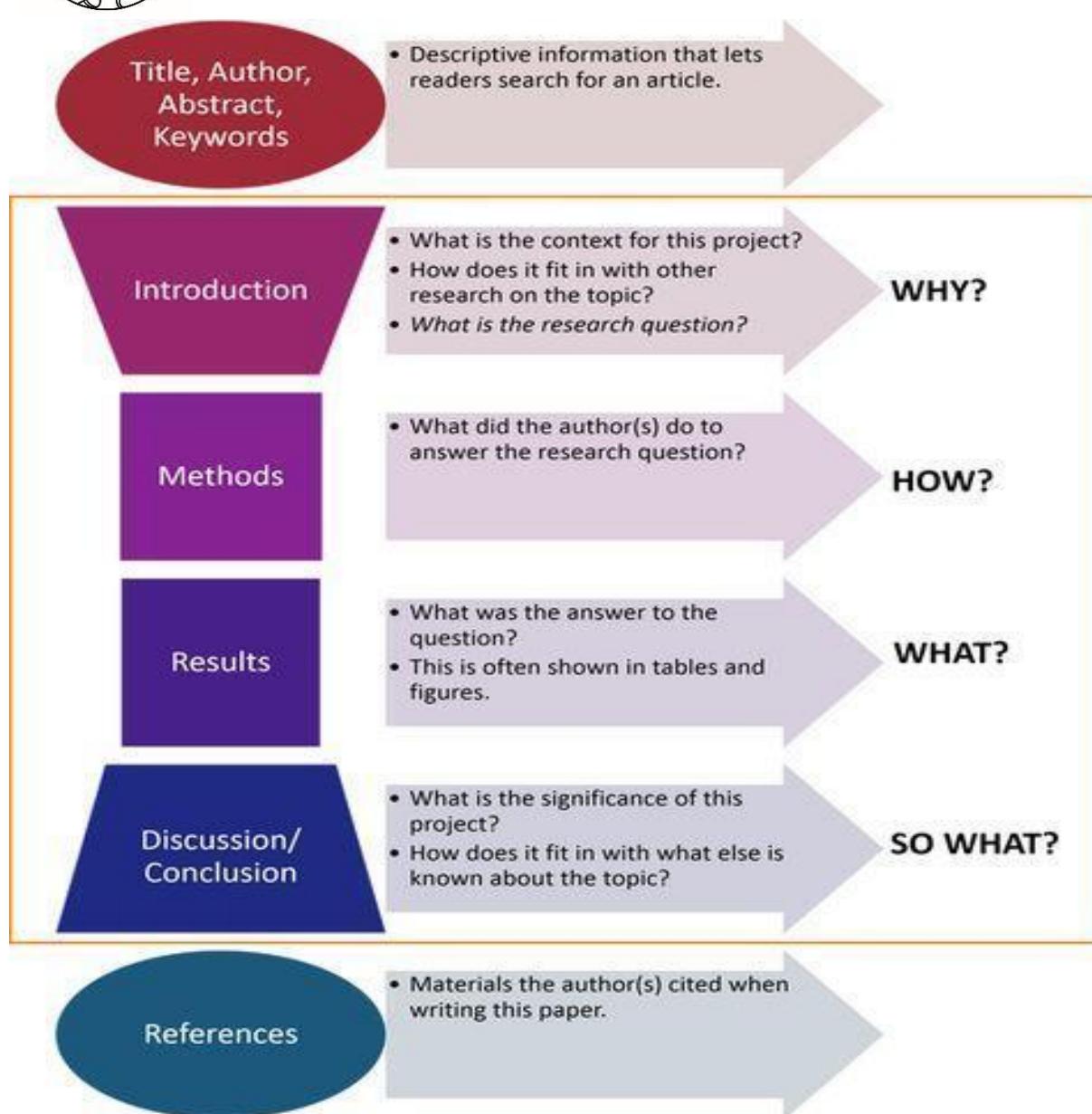
1. _____ The cup had a mass of 454 grams.
2. _____ The temperature outside is 250 C.
3. _____ It is warm outside.
4. _____ The tree is 30 feet tall.
5. _____ The building has 25 stories.
6. _____ The building is taller than the tree.
7. _____ The sidewalk is long.
8. _____ The sidewalk is 100 meters long.
9. _____ The race was over quickly.
10. _____ The race was over in 10 minutes.

Lesson 3

Elements of Research Paper



What's In?



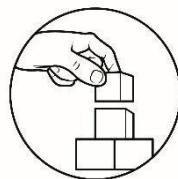
(Source: <https://www.pinterest.ph/pin/618330223823792099/>)



What's New

Activity: Fill-in the blanks to complete the statements below

1. _____ is often shown in tables and figures.
2. _____ are descriptive information that let readers search for an article.
3. _____ it answers the questions in the Research.
4. _____ are the materials the author/s cited when writing the research.
5. _____ discusses the results of the research.
6. _____ is where the readers know what the research is about.
7. _____ answers the “why” question in the research.
8. _____ answers the “how” question in the research.
9. _____ answers the “so what” question in the research.
10. _____ answers the “what” question in the research.



What's More

Activity: Tell Me Truth or Tell Me False

Read the statements below and identify if they are true or false. Write on the blanks before the number **TRUE** if the statement is correct and **FALSE** if it is not.

- _____ 1. The introduction of the research paper gives an overview of any issues involved with the subject.
- _____ 2. Statements in the introduction should not be paraphrased, it should be copied word per word.
- _____ 3. The body of the research paper, use strong evidence from sources—paraphrases, summaries, and quotations that support the main points
- _____ 4. The body clearly present the main points of the paper as listed in the thesis.
- _____ 5. Highlight background information on the topic needed to understand the direction of the paper is found in the body of the research.

- _____ 6. Conclusion should restate your thesis from the introduction in different words.
- _____ 7. Use transitions between main points and between examples within the main points
- _____ 8. The introduction must end with a THESIS statement that tells what the overall paper will focus on.
- _____ 9. Briefly outline the main points in the paper in the conclusion part.
- _____ 10. The conclusion ends with a strong clincher statement an appropriate, meaningful final sentence that ties the whole point of the paper together.



What I Have Learned

Activity: Filling in those blanks

To check your understanding of the lesson, answer the following questions on your answer sheet.

1. What are the kinds of research methods?

- a. _____
- b. _____

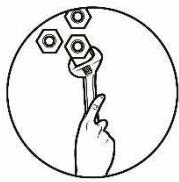
2. List the elements of a research

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____
- f. _____
- g. _____

3. What is the importance of research in our everyday life? Write 2-3 sentences for your answer.

4. Write 5 technical or terminologies in research

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____



What I Can Do

Activity: Fix Me!

So, here is a simple research for you to work on. Arrange the contents following the format or the research. Write this in your answer sheet.

The Importance of Research for ICT Teachers

February 8, 2011

How important is research for teachers in general, and ICT teachers in particular? One might be tempted to say that people learn in the same way now as they did thousands of years ago, so research, apart from keeping abreast of the latest developments in technology, is pretty redundant. I think there are problems with that attitude.

First, we don't know what we don't know. Research can shed light on issues we didn't even know existed, and can raise questions we hadn't realized even needed asking. Second, I'm not convinced that people do learn in the same way as they did thousands of years ago. Technology has meant that we can make mistakes that would have been fatal in the past, through the use of simulations and modelling. Social media has meant that we can canvass, or be exposed to, views from a much wider range of people than would have been possible hitherto. This happens almost by accident. For example, I recently wrote an article about how school districts in the USA are spending their money on computer hardware. This led to comments by John McLear, Michael Pickett and someone called Hamish. All their views are interesting, especially as two of them (John and Michael) seem to feel the same way as I do about tablets vs netbooks (article on that subject is already in the works).

Moreover, Michael has provided a couple of links to articles on his website which I am looking forward to reading, and provided a further reference on Twitter this morning. Perhaps in a sense the actual mechanisms by which stuff enters our brains, stays there and then becomes useful in a practical way really hasn't changed for millennia – which may or may not be true, but in a sense that is irrelevant.

I'd also say that, if you discovered that your doctor hasn't read a medical journal article since he or she qualified, you might consider changing your doctor! Hopefully, research is not a life or death issue in education, but I do believe that what makes a professional a professional is keeping up-to-date with the issues and thinking that are pertinent to that subject. That's why it's quite right that the powers-that-be believe teachers should continue to do research, although I agree with Christina Preston (see below) that such research doesn't have to be at Masters level.

What is research? On the one hand you have the highly academic stuff that universities and other institutions engage in. On the other hand, you have Freda Bloggs keeping a note of what happens in her classroom when she introduces a new application into her teaching. And somewhere in the middle are people like myself, who carry out research via online surveys or on Twitter. The methodology may not be scientific in the true sense of the term, but I like to think that at the very least it can act as a catalyst for discussion and flag up issues for further exploration.

Source: <https://www.ictineducation.org/home-page/2011/2/8/the-importance-of-research-for-ict-teachers.html>

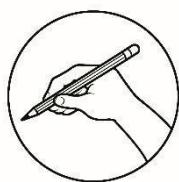
TITLE: _____

INTRODUCTION: _____

PROBLEM/S: _____

METHOD USED: _____

CONCLUSION: _____



Assessment

Read each statement carefully and choose the best answer that fits the given description. If you are able to answer all the pre-assessment items correctly, then you may skip studying the content of this learning module.

1. The basic purpose of a research paper is to _____.

A. explain B. describe C. inform	D. narrate E. illustrate F. persuade
--	--

2. The first step in writing a research paper is to _____.

A. narrow your subject to refine your topic B. choose a subject C. develop a research question	D. find sources E. take notes F. write a thesis statement
--	---

3. A good research topic is one that is _____.

A. general or vague B. easy, uncomplicated C. of interest to the researcher	D. limited or focused E. only c and d F. only a and b
---	---

4. The most common way to conclude a research paper is to _____.

A. restate the main idea B. restate the principal arguments supporting the main idea C. supply necessary background information D. all of the above	E. only a and b F. only b and c
--	------------------------------------

5. A Works Cited list includes _____.

- A. all the sources you read for the paper
- B. all the sources you know of about your topic
- C. all the sources you used for the paper
- D. both print and non-print sources
- E. both c and d
- F. all of the above

6. What purposes are accomplished by the introduction to a research paper?

- A. It provides background information and key terms.
- B. It grabs the reader's attention.
- C. It presents the main idea, or thesis statement.
- D. all of the above

7. This research term provides a tentative explanation or answer for a phenomenon under investigation.

- A. reliability
- B. hypothesis
- C. sampling
- D. validity

8. It is the systematic process of collecting and analyzing information in order to increase our understanding of the information of the phenomenon which are of concern or interest.

- A. research
- B. variables
- C. theory
- D. concept

9. It is a term used in research that abstractly describes and names an object, a phenomenon, or an idea.

- A. research
- B. variables
- C. Theory
- D. concept

10. It is an organized body of concepts and principles intended to explain a particular phenomenon.

- A. research
- B. variables
- C. Theory
- D. concept

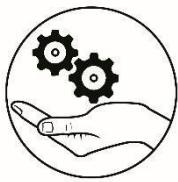
11. It is a term in research called as any quality of person, group subject event, condition or emotion that varies or takes on different values.

- A. variable
- B. sampling
- C. hypothesis
- D. theory

12. This is a part of research that consists of assumptions, hypothesis, definitions, or a synthesis of a set of theories serving as the theoretical backbone of the investigation.

- A. Statement of the Problem
- B. Theoretical Framework
- C. Scope and Limitation of the Study
- D. Background of the Study

13. This part of the research paper tells the purpose and importance of the research.
- A. Gap of the Problem C. Significance of the Study
B. Introduction D. Abstract
14. This section of the research focuses only on results that are related to the research or problem.
- A. Abstract B. Introduction C. Methodology D. Title
15. It uses a style or format to cue authors where it supports the background of the study of your research.
- A. Literature Cited B. Methodology C. Abstract D. Introduction
16. All the tools used in the research should be seen in this part.
- A. References B. Introduction C. Title D. Methodology
17. This kind of research is used to describe variables and examine relationships among variables.
- A. Qualitative Method C. Quantitative Method
B. Experimental Design D. Grounded theory
18. This design of a qualitative method focuses on the experiment/s that are a part of the variables.
- A. Phenomenology B. Experimental C. Correlation D. Descriptive
19. This method of research refers to the meaning, concepts, definitions, characteristics, metaphors, symbols and descriptions of things.
- A. Qualitative Method C. Concepts
B. Theory D. Quantitative Method
20. It is a problem that needs to be solved through research.
- A. Scope and Limitation of the Study C. Gap of the Study
B. Background of the Study D. Problem of the Study



Additional Activity

Read the text below and label the research below using the elements of research (**Title, Introduction, Methodology, Results and Discussions, Conclusion and References**)

Color Psychology Paper

How does color affect one's mood?

Colors may just seem simple and unimportant, but they affect our daily lives more than we may know. If someone is feeling angry, it could just be because they're angry, or it could be perhaps that they are surrounded by or looking at the color red. That's right! People's moods can change just because they are looking at different colors! There are many theories on how just a simple color can change one's whole mood.

According to Johnson (2007), color does affect mood by producing certain chemicals and stimulating different feelings such as hunger. For example, blue can make one feel calm because it releases calming chemicals, and red can make one hungry because it is an appetite stimulant. Yellow can make one feel irritated, and it is a fact that people lose their temper most in yellow rooms. However, pink is tranquilizing and can make one feel weak. In conclusion, Johnson says that depending on the color, one's body can do things (like producing chemicals) that cause a certain emotional reaction (mad, sad, etc.). Another idea, by Smith (2007), is that the effect color produces is based on what one's body does in response. For example, yellow is mentally stimulating, and activates memory, whereas red increases confidence. Also, brown can make a person feel orderly and stable, while a dark blue can make one feel sad. Therefore, Smith says that different colors do in fact change one's mood and the consequences can be negative or positive. A third writer, Wollard, (2000) seems to think that color can affect one's mood, but the effect also can depend on one's culture and what one's personal reflection may be. For example, someone from Japan may not associate red with anger, as people from the U.S. tend to do. Also, a person who likes the color brown may associate brown with happiness. However, Wollard does think that colors can make everyone feel the same, or close to the same, mood. According to Wollard, pink reduces aggression, which is why the walls of the jail cells in the Seattle prison are pink! Also, brown can make one feel comforted. Wollard feels that colors do affect one's mood, but there are other factors that can alter what one is supposed to feel. Eric, John, and Paraag's (2007) main point about color psychology is that color has both a physiological and psychological effect. For example, green makes people feel relaxed because it relaxes their muscles and makes them breathe deeper and more slowly. Furthermore, blue lowers blood pressure, which makes one feel calm. Eric, John, and Paraag conclude that color affects one's mood because of what it does to the body. Yet another idea, by Airey (2006), is that color is energy, and it can have a physical, mental, spiritual, and/or emotional effect on people. He states that black can make one feel sophisticated and secure, but it can also make one feel depressed. Also brown can make a person feel reliable and serious, while yellow lifts self-esteem. Therefore, Airey concludes that different colors can have different kinds of effects on people.

There are three ideas about color psychology in these sources, and they all say that color affects one's mood. They differ based on what factors influence the effects of color, such as culture, opinion, and what goes on inside one's body. One of the three ideas is that color affects mood based on one's personal opinions. For example, if a person dislikes the color pink, he may associate pink with hate. Another idea states that color affects mood based on one's culture. For example, someone from the U.S. may think of the color green when referring to envy, while people in Japan think of yellow in connection with wanting what someone else has. However, the majority of the sources consulted say that color affects mood by influencing what goes on inside of people. For example, seeing the color blue releases calming chemicals, which in turn makes one calm. Also, because yellow is the hardest color for the eye to focus on, people may become irritated when looking at yellow, and it is a proven fact that babies cry most in yellow nurseries. These theories do not seem to have much in common.

In order to test ideas about how color affects one's mood (color psychology) this researcher will test sixty middle school students (thirty girls and thirty boys) on how the colors green, blue, black, yellow, red, pink, and brown make them feel. The students will mark the feeling that each color makes them feel, according to the choices shown on the example survey below.

(The only thing that changes in each different survey is the color being tested and the gender of the student responding):

Choose as many answers as fit your feeling for the color. Does the color make you feel:

- Mad/Angry?
- Sad/Depressed/Cold?
- Secure/Safe?
- Irritated/Annoyed?
- Calm?
- Relaxed?
- Fun/Excited?
- Happy/Cheery?
- Tired/Sleepy/Drowsy?
- Bored?
- Losing Energy/Weak?
- Neutral/Balanced?
- Love/Affection?
- Dislike/Hate?

Most female middle school students associated these feelings with these colors...Black Green Yellow Pink Brown Red Blue

Sad/Cold/ Depressing (43%)

Neutral/ Balanced (27%)

Happy/Cheery (53%)

Happy/Cheery (27%) and

Love/Affection (27%)
Bored (40%)
Mad/ Angry (30%) and
Love/Affection (30%)
Calm (23%)

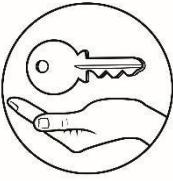
So, the greatest number of female middle school students thought that black made them feel sad, cold, and depressed; and green made most of them feel neutral and balanced, and so on. The numbers in parentheses by the feelings show the percentage of girls that felt that way. The reason most of these percentages are so low is that there were many different responses, and for most feeling categories there were only one or two girls who felt that way. Most male middle school students associated these feelings with these colors...

Black Green Yellow Pink Brown Red Blue
Sad/Cold/Depressed (37%)
Secure/Safe (27%)
Happy/Cheery (17%)
Love/Affection (33%)
Bored (20%)
Mad/ Angry (27%)
Relaxed (23%)

So, the greatest number of male middle school students thought that black made them feel sad, cold, and depressed; and green made most of them feel secure and safe, and so on. The numbers in parentheses by the feeling show the percentage of boys that felt that way. The reason these percentages are so low is that there were many different responses, and for most feeling categories there were only one or two boys who felt that way.

Color does affect one's mood, but it can affect boys and girls differently. For example, while most female middle school students found green neutral and balancing, most male middle school students found it secure and safe. However, there are also some similarities between the female and male middle school students. For example, most female middle school students thought that brown made them feel bored, and so did the male middle school students! Also, both found that pink made them feel love and affection. However, some results in this study were different from the research cited. For example, the research stated that brown would make girls and boys feel secure and safe, but instead it made them feel bored. Furthermore, the research said that yellow would make boys and girls feel irritated, but most boys and girls reported that it made them feel happy and cheery. Overall, most of the results were different from the research sources consulted. In any case, it is obvious that colors have a great effect on one's mood.

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Answer Key

What I Can Do		Title: Acid Rain, Killer Rain	
Assessment		Introduction: Every time you turn the television on to take a ride in a car, you could be contributing to a problem called acid rain. In this text, you'll learn how acid rain is created, the effects of acid rain and more importantly, what we all can do to prevent it. Acid forms clouds in the air given off by burning fuels, such as coal and gasoline, mix with rain, when the gases heat up and turn into acids. When rain mixes with these gases, harmful substances called acids form. This is acid rain.	
1. C	11. A	1. C	1. C
2. A	12. B	2. A	2. A
3. E	13. A	3. E	3. E
4. D	14. C	4. D	4. D
5. C	15. A	5. C	5. C
6. D	16. D	6. D	6. D
7. B	17. B	7. B	7. B
8. A	18. B	8. A	8. A
9. D	19. A	9. D	9. D
10. C	20. C	10. C	10. C

What's I Have Learned 1. a. QUALITATIVE b. QUANTITATIVE 2. a. TITLE b. ABSTRACT c. INTRODUCTION d. METHODS e. RESULTS f. DISCUSSION/ CONCLUSIONS g. REFERENCES 3. & 4. Depends on the answer of the student	What's More 1. TRUE 2. FALSE 3. TRUE 4. TRUE 5. FALSE 6. TRUE 7. TRUE 8. TRUE 9. FALSE 10. FALSE	LESSON 3 1. RESULTS 2. TITLE 3. METHODS 4. REFERENCES 5. DISCUSSION 6. INTRODUCTION 7. INTRODUCTION 8. METHODS 9. DISCUSSION/ CONCLUSIONS 10. RESULTS
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LESSON 1

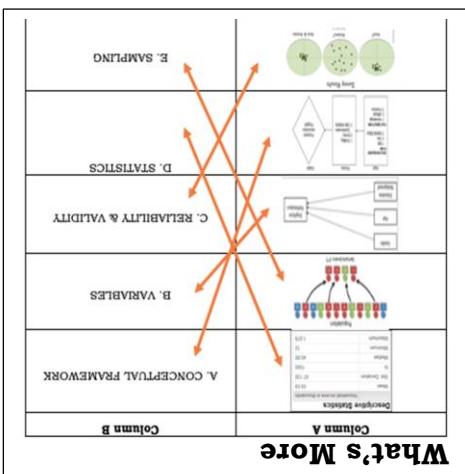
What I know

- 1. C
- 2. A
- 3. E
- 4. D
- 5. C
- 6. D
- 7. B
- 8. A
- 9. D
- 10. C
- 11. A
- 12. B
- 13. A
- 14. C
- 15. A
- 16. D
- 17. B
- 18. B
- 19. A
- 20. C

What I have learned

- E. 10
- D. 3
- C. 1
- B. 4
- A. 2
- J. 9
- G. 5
- H. 7
- I. 11
- J. 8
- K. 6

What I can Do



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