

Personalized Research and Assessment Glossary

Student Name

Institutional Affiliation

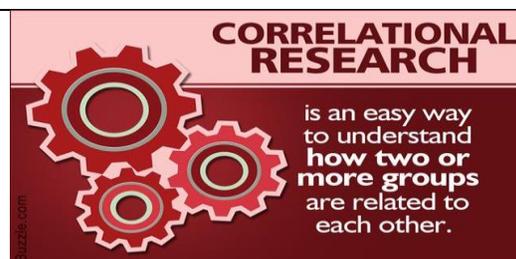
Course Name and Number

Professor's Name

Assignment Due Date

Personalized Research and Assessment Glossary

Key Term: Correlational Research	Category: Research
Part 1: Definitions	
Personnel Definition:	Definition:
Correlational research deals with the measurement of two variables within a study without partiality. This leads to the equal measuring of variables and the development of a relationship between the research items.	It is a type of non-experimental research method whereby researchers measure two or more variables. This allows them to understand and assess the statistical relationships between these variables without influence during analysis from extraneous variables. The data collected is used in determining a connection existing amongst two or more variables (Noori, 2021).
Word Count: 32 /50	Word Count 50 /50
Part 2: Explore with Words	
Antonym:	Opposite:
Independent	Dependent
Words associated with:	Sentence:
Mutual Interdependent Correspondent Interrelation	The correlational research method used by the authors in this article highlights the connection between unhealthy foods and morbidity rates.
Examples:	Non-Examples:
Unhealthy foods, Morbidity rates	Authors, article
Why did I choose this word?	Where did I encounter this term?
It was a new vocabulary term for me this semester.	Throughout the semester readings
Part 3: Visual, Graphic Organizer, or Concept Map	



Part 4: Analysis and Interpretation

In this section, build an advanced understanding / expanded definition of the term.

Correlational research is a non-experimental research practical design in research work to infer possible connections between two or more variables (Bednárová-Gibová & Majherová, 2021). This prevents a researcher from concluding the causes and effects of an event. Therefore, whenever one variable changes, a researcher can think of the possible change the other variable will experience (Krause, 2018). There are three major types of correlational research: positive, negative, and no correlation. A positive correlation depicts the positive interaction of variables where an increase or decrease in a variable will influence the other variable to surge or decrease. The negative correlation depicts the opposite of the positive correlation. This includes an increase of one variable leading to a decrease in the other variable. The no correlation type indicates the lack of interaction between two or more variables (Noori, 2021). Thus one variable changing does not automate a change in the other variable. The major correlational research characteristics indicate that the design is non-experimental, it is backward-looking, and is dynamic. Further, correlational research is done through naturalistic observation, survey applications, and documentary researching (Archival data).

Word Count 182 /200

How can I remember?

Analyzing various variables in everyday life and their relation to each other. This can be at school, home and work. I can engage in group discussions for further analysis and understanding of correlational research. This will allow for increased asking of questions and discussing the term in-depth.

Word Count 50 /50

Where can I go for additional information:

Online platforms

Professor/lecturer

E-books

Classmates

Peer-reviewed articles

APA References

Bednárová-Gibová, K., & Majherová, M. (2021). Academic literary translators: a happy 'elite' or not? Some insights from correlational research. *The Translator*, 1-23.

<https://doi.org/10.1080/13556509.2021.1872921>

Krause, M. S. (2018). Associational versus correlational research study design and data analysis. *Quality & Quantity*, 52(6), 2691-2707. <https://doi.org/10.1007/s11135-018-0687-8>

Noori, A. (2021). *Glossary of Key Terms in Educational Research*. (ED611000). ERIC.

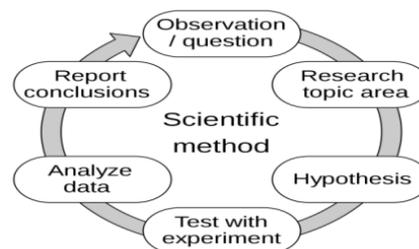
<https://files.eric.ed.gov/fulltext/ED611000.pdf>

Key Term: Scientifically Based Research	Category: Research
Part 1: Definitions	
Personnel Definition:	Definition:
Scientifically-based research defines the employment of analytical strategies in attaining information. This includes using systematic tools for achieving evidence and providing meaning to a study or event. This research follows strategic procedures in acquiring the necessary information. Such form the basis for educational programs through efficient research work.	Scientifically based research depicts research involving systematic, objective, and rigorous processes in attaining reliable and valid evidence. This allows researchers to access relevant knowledge for educational activities and programs. These pieces of evidence utilize empirical methods based on observations and experiments (Van Cleave, 2018).
Word Count <u>49</u> /50	Word Count <u>46</u> /50
Part 2: Explore with Words	
Antonym:	Opposite:
Pseudoscientific research	Biological research
Words associated with:	Sentence:
Biological Research Experimentation Investigative research	The healthcare researchers utilized scientifically based research in finding the Astra Zeneca-Oxford COVID-19 vaccine.
Examples:	Non-Examples:
Astra Zeneca-Oxford COVID-19 vaccine	Healthcare researchers
Why did I choose this word?	Where did I encounter this term?
I have learned a lot on the topic this semester. I can differentiate it from other research strategies and have gathered more evidence.	Throughout the course work this semester and during peer discussions with my classmates

Part 3: Visual, Graphic Organizer, or Concept Map

What evidence is critical in evaluating whether a body of research is scientifically based?

- Systematic and empirical methods
- Rigorous data analyses
- Reliable and valid data collection
- Strong research design
- Detailed results that allow for replication
- Results subjected to scrutiny



Part 4: Analysis and Interpretation

In this section, build an advanced understanding / expanded definition of the term.

Various studies from the past have indicated that scientifically based research is a significant foundation within the educational system. This is so as it provides efficient evidence regarding the classroom instructions in learning different concepts. It is restricted as the research aspect entails applying rigorous, objective, and systematic procedures in obtaining reliable and practical information. Such is essential to different educational activities and academic programs. The research employs the usage of systematic and empirical methodology in drawing on observation or experiment. Further, it includes efficient analyses of data which aids in testing the hypotheses or make justifications to the conclusions attained (Johnson, 2018). Scientific-based research relies on measurements and observational approaches as they are more reliable and valid. Researchers use either experimental or quasi-experimental research designs in evaluating the effects of the evidence attained. These are robust research designs that cause the evidence to be more detailed hence enhancing its replication. Besides, the research's outcome is subjective to scrutiny through peer-reviewing and approved afterward (Robinson, Brunnhuber, Ciliska, et al., 2020). These formulate the significant characteristics of a scientifically based research aspect within research methodology.

Word Count 184 /200

How can I remember?

By studying the different books available on research methodology, continuous studying opens the mind more in attaining knowledge on scientifically based research and its impacts on the research. Further, group discussions with peers and consulting the professor would facilitate remembrance of the critical term discussed.

Word Count 45 /50

Where can I go for additional information:

Peers

The online and physical library

Lectures

YouTube

APA References

Johnson, A. P. (2018). *SCIENTIFICALLY BASED RESEARCH*. <https://rss.com/podcasts/drandy/45548>

Robinson, K. A., Brunnhuber, K., Ciliska, D., Juhl, C. B., Christensen, R., & Lund, H. (2020). What Evidence-Based Research is and why is it important?. *Journal of Clinical Epidemiology*. <https://doi.org/10.1016/j.jclinepi.2020.07.020>

Van Cleave, J. (2018). Scientifically based research in a post-truth era. *education policy analysis archives*, 26, 150. <https://doi.org/10.14507/epaa.26.3392>

Key Term: Naturalistic Inquiry	Category: Assessment
Part 1: Definitions	
Personnel Definition: Naturalistic inquiry defines a common approach in determining what the surrounding is like without involving experiments and measurements. This includes observing what specific groups of people do and their experiences. This allows for collecting data on why certain behaviors or actions are seen among specified individuals and not all populations. Word Count <u>50</u> /50	Definition: This is an approach used in understanding the social sphere whereby the researchers make observations, descriptions, and interpretations of studies conducted. Such relates to experiences and actions for specific individuals and groups within the society and in one particular cultural context. Its design is valuable for exploratory research (Ninan, 2020). Word Count <u>50</u> /50
Part 2: Explore with Words	
Antonym:	Opposite:
Non-realistic inquiry	Natural Inquiry
Words associated with:	Sentence:
Realistic True	The researchers analyzed the causes of unhealthy lifestyles among men using a naturalistic inquiry.
Examples:	Non-Examples:
Causes of Unhealthy Lifestyles	Researchers, Men
Why did I choose this word?	Where did I encounter this term?
It is a new term for me this semester.	I read it in a research article and was intrigued to learn more about it.
Part 3: Visual, Graphic Organizer, or Concept Map	
Visual representation of the term showing term understanding.	
<div style="text-align: center; background-color: #006666; color: white; padding: 5px;">1. Naturalistic Inquiry</div> <ul style="list-style-type: none"> Studying real life situations as they unfold Non-manipulative, unobstrusive, and noncontrolling Openness to whatever emerges – lack of predetermined constraints on outcomes. <div style="text-align: right; background-color: #006666; color: white; padding: 5px; margin-top: 20px;"><i>themes</i></div>	

Part 4: Analysis and Interpretation

In this section, build an advanced understanding / expanded definition of the term.

Naturalistic inquiry entails the approach of studying real-life events as they unfold. This enhances understanding of the social world through a researcher's observation, description, and interpretation of the experiences and specific groups of people's actions. Such defines the people and society's cultural context without manipulation of the evidence observed. Besides, the naturalistic inquiry is discreet and has no control over the changes. Therefore, it is open to whatever change emerges. There is inadequate deciding of constraints concerning the expected outcomes. The qualitative research methods used include direct and participant observation, case study, ethnographic approach, field research methods, and grounded theory (McInnes, Peters, Bonney & Halcomb, 2017). Researchers utilize descriptive data sources to analyze people's actions and experiences to interpret the social phenomena.

Word Count 127 /200

How can I remember?

I am conducting more studies on Naturalistic inquiry. This will provide me an opportunity to do more analysis of different authors' perspectives on this term. Further, I would write brief notes in my notebook for review. I would use quizzes after studying to confirm my understanding and how much information I have gathered.

Word Count 50 /50

Where can I go for additional information:

Lecturer

Peers

School library – Online

APA References

McInnes, S., Peters, K., Bonney, A. D., & Halcomb, E. J. (2017). *An exemplar of naturalistic inquiry in general practice research*. <https://ro.uow.edu.au/smhpapers/4302>

Ninan, J. (2020). Online naturalistic inquiry in project management research: Directions for research. *Project Leadership and Society, 1*, 100002. <https://doi.org/10.1016/j.plas.2020.100002>

Key Term: Quasi-Experimental Research	Category: Research
Part 1: Definitions	
Personnel Definition:	Definition:
<p>It is a practical research design in defining the cause and effect relationship among variables, including independent and dependent variables. It includes non-random assignment of subjects to study groups, thus an ethical study design. This research design has no control over the variables utilized and is a practical research design.</p> <p>Word Count <u>50</u> /50</p>	<p>Quasi-experimental research depicts the empirical interventional form of study helpful in estimating the causal impacts of an interference. Such is based on specific populations with no random assigning of the subjects to treatments or control. This research design is a helpful tool in ensuring the data collected is practical and ethical (Gopalan, Rosinger, & Ahn, 2020).</p> <p>Word Count <u>50</u> /50</p>
Part 2: Explore with Words	
Antonym:	Opposite:
N/A	N/A
Words associated with:	Sentence:
<p>Non-experimental Single-case</p>	<p>The quasi-experimental research design was critical in analyzing the causal facets of malaria in remote areas across all populations.</p>
Examples:	Non-Examples:
Causes of Malaria, remote areas, all populations	Analyzing
Why did I choose this word?	Where did I encounter this term?
I had never heard the term before this class.	I read it in an article this semester and wrote the word down to further my understanding of this type of research.
Part 3: Visual, Graphic Organizer, or Concept Map	
<pre> graph TD ERD[experimental research designs] --> PED[pre-experimental research designs] ERD --> QERD[quasi-experimental research designs] ERD --> TERD[true-experimental research designs] PED --> OS[one-shot experimental study] PED --> OG[one group pre-test & post-test study] PED --> SG[static group comparison study] QERD --> NR[non-randomized control group pre-test & post-test study] QERD --> TS[time series based study] QERD --> CG[control group time series study] QERD --> ETS[equivalent time samples study] TERD --> PTP[pre-test & post-test control group study] TERD --> SF[Solomon four-group study] TERD --> PTO[post-test only control group study] </pre>	

Part 4: Analysis and Interpretation

In this section, build an advanced understanding / expanded definition of the term.

Quasi-experimental research depicts the empirical interventional form of study helpful in estimating the causal impacts of an interference. Such is based on specific populations with no random assigning of the subjects to treatments or control. This research design is a valuable tool in ensuring the data collected is practical and ethical (Gopalan, Rosinger, & Ahn, 2020). There are many types of quasi-experimental research design. However, three of the most basic methods include nonequivalent group design, natural experiment, and regression discontinuity. The nonequivalent group design allows the researcher to choose existing groups appearing similar, yet only one group will experience the treatment. The regression discontinuity design will enable researchers to use individual subjects below the threshold as a control group while those above are the treatment groups. Lastly, the natural experiment includes an external event resulting in randomly assigning subjects to treatment groups. They are naturally observational, and the researcher has no control over the independent variable (Maciejewski, 2020).

Word Count **160** /200

How can I remember?

Through continuously studying the research design using research methodology books. Further, group discussions will help facilitate remembrance of the term while striving to construct sentences with different variables. Besides, consulting the lecture notes and research methods' lecturer will increase my ability to remember what quasi-experimental research design entails.

Word Count **50** /50

Where can I go for additional information:

E-books

Lecturer- Consultation

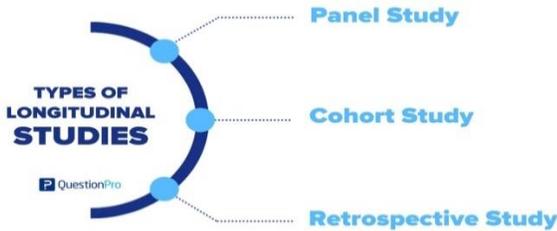
Research Methodology books

Discussion groups and platforms

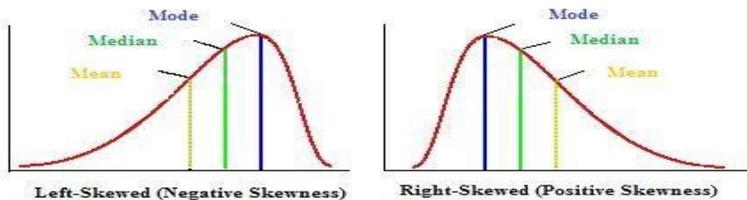
APA References

Gopalan, M., Rosinger, K., & Ahn, J. B. (2020). Use of quasi-experimental research designs in education research: growth, promise, and challenges. *Review of Research in Education*, 44(1), 218-243. <https://doi.org/10.3102%2F0091732X20903302>

Maciejewski, M. L. (2020). Quasi-experimental design. *Biostatistics & Epidemiology*, 4(1), 38-47. <https://doi.org/10.1080/24709360.2018.1477468>

Key Term: Longitudinal study	Category: Research
Part 1: Definitions	
Personnel Definition:	Definition:
This is a form of research design whereby the researcher examines a specific individual or group of people to detect any changes over time. It includes a repeated examination of the subject (s) without making any changes to their wellbeing. Such study can occur at one location or different places.	An efficient research design is utilized to make repeated observations on similar variables, including people over a specific period. The timing could be short or long-term. It is a form of observational study and primarily used in defining the social personality and individuals' clinical psychology contexts (Tuthill et al., 2020)
Word Count 50 /50	Word Count 48 /50
Part 2: Explore with Words	
Antonym:	Opposite:
Cross-sectional Study	Longitudinal Survey/Study
Words associated with:	Sentence:
Investigation Inquiry Exploration	A longitudinal study was conducted in 2018 on humanitarian migrants to Australia to build a new life.
Examples:	Non-Examples:
Building a new life, Migrants (cohort study), the year 2018	Australia
Why did I choose this word?	Where did I encounter this term?
It seems essential to understand.	I read this term in multiple times in the course.
Part 3: Visual, Graphic Organizer, or Concept Map	
 <p>TYPES OF LONGITUDINAL STUDIES</p> <ul style="list-style-type: none"> Panel Study Cohort Study Retrospective Study <p>QuestionPro</p>	

Part 4: Analysis and Interpretation	
In this section, build an advanced understanding / expanded definition of the term.	
<p>An efficient research design is utilized to make repeated observations on similar variables, including people over a specific period. The timing could be short or long-term. It is a form of observational study and is primarily used in defining the social personality and individuals' clinical psychology contexts (Tuthill et al., 2020). For this study, the data is collected through observation by the researcher without necessarily changing or influencing the variables involved. Primarily, this aspect is utilized within medical, economic, and epidemiology studies. Further, it can be utilized within social and scientific fields. There are no specific set timelines for a longitudinal study. The important aspect includes continuous observation of the participants, which can be done on short or long periods. Mostly, they last for at least one year. A longitudinal study can be performed by using data from other sources or using individually gathered data through retrospective and prospective studies. The longitudinal study is essential as it enables researchers to follow their study subjects in real-time, thus sequencing events. It allows for repeated observations for the same issues and eliminates any risk of recall biases. However, it can be very time-consuming and expensive to implement (Mergel & Schützwohl, 2021).</p>	
Word Count <u>200</u> /200	
How can I remember?	
<p>Through continuous studying of the research design using research methodology books. Further, group discussions will help facilitate remembrance of the term while striving to construct sentences with different variables. Besides, consulting the lecture notes and research methods' lecturer will increase my ability to remember what longitudinal study design entails.</p>	
Word Count <u>50</u> /50	
Where can I go for additional information:	
Library	Lecturer/Professor
Classmates	Online peer-reviewed articles
APA References	
<p>Mergel, E., & Schützwohl, M. (2021). A longitudinal study on the COVID-19 pandemic and its divergent effects on social participation and mental health across different study groups with and without mental disorders. <i>Social psychiatry and psychiatric epidemiology</i>, 1-10. https://doi.org/10.1007/s00127-021-02025-9</p> <p>Tuthill, E. L., Maltby, A. E., DiClemente, K., & Pellowski, J. A. (2020). Longitudinal qualitative methods in health behavior and nursing research: assumptions, design, analysis, and lessons learned. <i>International Journal of Qualitative Methods</i>, 19, 1609406920965799. https://doi.org/10.1177%2F1609406920965799</p>	

Key Term: Skewed Distribution	Category: Assessment
Part 1: Definitions	
Personnel Definition:	Definition:
Skewed distribution relates to the tails of distribution aspects in the statistical analysis of data collected. The negative and positive skewed distribution helps to indicate the mean and median of the data presented. Also, the no skew distribution indicates there is equal distribution of different data components. The skewed distribution shows the tail's direction. Word Count <u>50</u> /50	The skewed distribution is a form of descriptive statistics describing a tail being longer than the other. These include positive, negative, and no skews. A positive skew has a longer tail to the positive direction, while negative skew has a longer tail to the negative direction. The no skew is termed as symmetric (Martínez-Flórez et al., 2020) Word Count <u>50</u> /50
Part 2: Explore with Words	
Antonym:	Opposite:
Normal Distribution	Slanting distribution
Words associated with:	Sentence:
<ul style="list-style-type: none"> • Asymmetry. • Dissymmetry. • Imbalance 	The government utilizes skewed distribution in income dissemination among the citizens.
Examples:	Non-Examples:
Income dissemination	Citizens
Why did I choose this word?	Where did I encounter this term?
I need to understand the aspect of distribution within the statistical contexts.	While doing my further studies on descriptive statistics.
Part 3: Visual, Graphic Organizer, or Concept Map	
Visual representation of the term showing term understanding.	
 <p>The image contains two side-by-side graphs of probability density functions. The left graph is labeled 'Left-Skewed (Negative Skewness)' and shows a curve that rises to a peak and then has a long tail extending to the left. Three vertical lines mark the Mode (blue), Median (green), and Mean (yellow) from left to right. The right graph is labeled 'Right-Skewed (Positive Skewness)' and shows a curve that rises to a peak and then has a long tail extending to the right. Three vertical lines mark the Mode (blue), Median (green), and Mean (yellow) from left to right.</p>	

Part 4: Analysis and Interpretation	
In this section, build an advanced understanding / expanded definition of the term.	
<p>In descriptive statistics, positively skewed distribution is more common than negatively skewed distribution. A skewed distribution is a form of descriptive statistics describing a tail being longer than the other. These include positive, negative, and no skews. A positive skew has a longer tail to the positive direction, while negative skew has a longer tail to the negative direction. The no skew is termed as symmetric (Martínez-Flórez et al., 2020). The positive skew has its tail extending way longer, whereas the negative skew mostly halts at zero (Curran-Everett, 2018). A positive skew is often recorded depending on the time taken in measuring a response. The mean is often more significant than the median. Negative skews do occur in few instances where the median is larger than the mean. When the median and mean are equal, no skewness is recorded, thus becomes a symmetrical distribution.</p>	
Word Count_145_/200	
How can I remember?	
<p>Through continuous studying of the research design and assessments using research methodology books. Further, group discussions will help facilitate remembrance of the term while striving to construct sentences with different variables. Besides, consulting lecture notes and research methods' lecturer will increase my ability to remember what skewed distribution entails.</p>	
Word Count_ 50_/50	
Where can I go for additional information:	
Research methodology books	
Peer-reviewed articles on Descriptive statistics assessment	
Peers	
APA References	
Curran-Everett, D. (2018). Explorations in statistics: the log transformation. <i>Advances in physiology education</i> , 42(2), 343-347. https://doi.org/10.1152/advan.00018.2018	
Martínez-Flórez, G., Leiva, V., Gómez-Déniz, E., & Marchant, C. (2020). A family of skew-normal distributions for modeling proportions and rates with zeros/ones excess. <i>Symmetry</i> , 12(9), 1439. http://dx.doi.org/10.3390/sym12091439	

Key Term: Measurement error	Category: Assessment
Part 1: Definitions	
Personnel Definition: This is a depiction of the differences between data sets measured, whereby the difference occurs between the quantity measured and the actual value of the data sets. Measurement error can either be random or systematic depending on the research design utilized in collecting the data analyzed. Word Count _46_ /50	Definition: Measurement error is also termed as the observational error is assessing various variables measured. This indicates the differences between the actual and true value and the measured quantity. The error can occur naturally (random) or can be caused by a mis-calibration (systematic) following the instruments used in attaining the measurements (Dvir, 2018). Word Count _50_ /50
Part 2: Explore with Words	
Antonym:	Opposite:
Exact measurement	Inaccurate measurement
Words associated with:	Sentence:
Erroneousness, Fallacy	The doctor indicated a measurement error while analyzing the weights and heights of the athletes on Tuesday morning.
Examples:	Non-Examples:
Weights, Heights	Tuesday morning, athletes
Why did I choose this word?	Where did I encounter this term?
The word kept cropping up during my classwork, and I did not clearly understand what it meant. I decided to write it down to ensure I research it.	I encountered a measurement error term while reading through a research methodology book throughout the semester.
Part 3: Visual, Graphic Organizer, or Concept Map	
<div style="background-color: #0070C0; color: white; padding: 5px;">Measurement Errors</div> <div style="background-color: #ADD8E6; padding: 5px;"> <p>Random errors can be reduced by repeating readings. As the error is random, some measurements will be high, others low but on average they should be more precise.</p> <p>Systematic errors can be reduced by calibrating equipment. By checking zero readings and scale calibration, systematic errors can be calculated and compensated for.</p> </div>	

Part 4: Analysis and Interpretation
In this section, build an advanced understanding / expanded definition of the term.
<p>A measurement error depicts the differences between the real value and the measured quantity. This includes two major types of errors; random error and systematic error. The random error occurs naturally and is expected in an experiment, while systematic errors are due to mis-calibrations following the instruments utilized for measurements (Hamada & Weaver, 2019). There are different types of measures of errors in research work. These include; absolute error, which defines the amount of error encountered in measurement. Secondly, it is the most significant possible error illustrating one-half of the measuring unit. The third is the instrument error which results from using inaccurate instruments. Other measures of errors include a margin of error, measurement location, operator, relative, and percent errors. There are various strategies to help reduce measurement errors. Such includes the double-checking of all measurements for accuracy and whether the formulas are correct. Further, the researcher must ensure the observers' and takers' measurements are effectively trained while the measurement tools have the highest precisions. Lastly, the measurements should be taken under controlled situations, and a pilot test should be done for the instruments. Three major statistical procedures to assess the measurement errors include standard error of measurement, coefficient of variation, and limits of agreement (Agogo,2016).</p> <p>Word Count <u>200</u> /200</p>
How can I remember?
<p>Through continuous studying of the research design and assessments using research methodology books. Group discussions will help in facilitating remembrance while striving to construct sentences with different variables to depict the types of measurement errors. Reading lecture notes and consulting my lecturer will increase my ability to recall measurement error.</p> <p>Word Count <u>50</u> /50</p>
Where can I go for additional information:
<p>Physical and online libraries</p> <p>Peer-reviewed journal articles</p> <p>Professor</p>
APA References
<p>Agogo, G. O. (2016). <i>Statistical modeling for exposure measurement error with application to epidemiological data</i> (Doctoral dissertation, Wageningen University).</p> <p>Dvir Z. (2018). Measurement, error, information, and interpretation. <i>Journal of exercise rehabilitation</i>, 14(6), 900–901. https://doi.org/10.12965/jer.1836596.298</p> <p>Hamada, M. S., & Weaver, B. P. (2019). Accounting for measurement error in analyzing Data. <i>Quality Engineering</i>, 31(2), 349-353. https://doi.org/10.1080/08982112.2018.1518530</p>

Key Term: Kurtosis	Category: Assessment
Part 1: Definitions	
Personnel Definition:	Definition:
<p>Based on my previous research studies, I think kurtosis depicts the measurement of variables in distribution. This allows for assessing score levels for the cluster based on tails or peaks of the distributions. The outcome seeks to estimate the normal and abnormal frequency of distribution for the data presented.</p> <p>Word Count <u>50</u> /50</p>	<p>Kurtosis measures the combined weights of distributions' tails compared to the gauge normal or symmetric distribution. It is a statistical assessment of measures to define the degree of distribution by analyzing the distribution frequency. Such can be based on the tail or peak of distribution (Bali, Hu & Murray, 2019).</p> <p>Word Count <u>50</u> /50</p>
Part 2: Explore with Words	
Antonym:	Opposite:
N/A	N/A
Words associated with:	Sentence:
Probability distribution	The kurtosis study helped me understand the distribution of wealth across all populations in our country.
Examples:	Non-Examples:
Wealth distribution, populations	Country
Why did I choose this word?	Where did I encounter this term?
It was a new term to me during my study and group discussions	In class, during a study on descriptive statistics under the distribution context.
Part 3: Visual, Graphic Organizer, or Concept Map	
Visual representation of the term showing term understanding.	

Part 4: Analysis and Interpretation

In this section, build an advanced understanding / expanded definition of the term.

Kurtosis is the measuring of combined weights of distributions' tails compared to the normal or symmetric distribution. It is a statistical assessment of measures to define the degree of distribution by analyzing the distribution frequency. Such can be based on the tail or peak of distribution (Bali, Hu & Murray, 2019). There are three significant types of kurtosis, namely: mesokurtic, platykurtic, and leptokurtic. The mesokurtic type defines the normal aspects of data distribution as moderation in breadth and curving. It is often a medium-peaked height. The leptokurtic type includes the thin distribution where more values are recorded on the distribution tails, and additional values are close to the mean of the data presented. Therefore, it is sharply peaked with heavy tails (Orcan, 2020). The platykurtic type includes fewer values on the tails, and fewer values close to the data mean as presented. Therefore, the curve tends to have a flat peak and increased dispersion of scores with lighter tails. When the kurtosis is equated to zero (0), it is termed normal distribution, thus being mesokurtic (medium peak). This forms a baseline for platykurtic and leptokurtic as it is neither low nor high. The platykurtic distribution indicates the negative distribution aspect, while the leptokurtic distribution indicates a positive kurtosis.

Word Count 200 /200

How can I remember?

Through continuous studying of the research design and assessments using research methodology books. Group discussions will help in facilitating remembrance while striving to construct sentences with different variables to depict the types of kurtosis and their distribution values. Reading lecture notes and consulting my lecturer will also increase my ability to recall.

Word Count 50 /50

Where can I go for additional information:

Lecture notes

You Tube

School library

Peer-reviewed journals

Peers

APA References

Bali, T. G., Hu, J., & Murray, S. (2019). Option implied volatility, skewness, and kurtosis and the cross-section of expected stock returns. *Georgetown McDonough School of Business Research Paper*. <https://dx.doi.org/10.2139/ssrn.2322945>

Orcan, F. (2020). Parametric or non-parametric: Skewness to test normality for mean comparison. *International Journal of Assessment Tools in Education*, 7(2), 255-265. <https://doi.org/10.21449/ijate.656077>

Key Term: Clinical trial study	Category: Research
Part 1: Definitions	
Personnel Definition:	Definition:
<p>Clinical trials study as a form of clinical research within the medical component exploration that involves people are the primary subjects. This leads to enhanced studying of the medical interventions to improve the wellbeing of a population. Besides, it allows healthcare institutions to define if the new treatment is efficient.</p> <p>Word Count <u>50</u> /50</p>	<p>A clinical trial is a form of a research study done among people aiming at assessing specific medical, behavioural, or surgical interventions. This helps in determining if a specific new treatment is functional, effective, and safe. Further, the trial study can shape how diseases can be detected early (World Health Organization, 2021).</p> <p>Word Count <u>50</u> /50</p>
Part 2: Explore with Words	
Antonym:	Opposite:
Basic research	Clinical investigation
Words associated with:	Sentence:
<p>Multidisciplinary Surgical Diagnostic Subjective</p>	The national hospitals continue to conduct clinical trials to determine a new treatment for cancer by 2027.
Examples:	Non-Examples:
New treatment for cancer	National hospitals, 2027
Why did I choose this word?	Where did I encounter this term?
It was a firsthand vocabulary term for me this semester.	Throughout the semester readings and during group discussions with peers.
Part 3: Visual, Graphic Organizer, or Concept Map	
Visual representation of the term showing term understanding.	
<p>PHASES of a CLINICAL TRIAL</p> <p>Preclinical LABORATORY STUDIES Duration: Several years ✓ Provide information on dosing and toxicity levels</p> <p>Phase 1 SAFETY Duration: Several months ✓ Evaluate safety ✓ Gather information about how a drug interacts with the human body</p> <p>Phase 2 SAFETY AND DOSING Duration: Several months ✓ Evaluate safety ✓ Monitor side effects ✓ Check which dose works best ✓ Check effectiveness</p> <p>Phase 3 SAFETY AND EFFICACY Duration: Several years ✓ Confirm effectiveness ✓ Monitor safety</p> <p>Phase 4 POST MARKETING SAFETY AND EFFICACY ✓ Gather information on the drug's effect in various populations and any side effects associated with long-term use</p> <p>FDA APPROVAL</p>	

Part 4: Analysis and Interpretation

In this section, build an advanced understanding / expanded definition of the term.

A clinical trial is a form of a research study done among people aiming at assessing specific medical, behavioural, or surgical interventions. This helps in determining if a specific new treatment is functional, effective, and safe. Further, the trial study can shape how diseases can be detected early (World Health Organization, 2021). In most cases, different people do volunteer to take part in a clinical trial study. They help test medical interventions such as drugs, surgical and radiological procedures, treatment devices, and preventive care. This study is carefully planned, designed, reviewed, and completed before being approved for use. Participants cut across every population for the trials, including children; thus, informed consent must be provided. There are four major phases of clinical trial studying. Phase I trial includes testing an experimental treatment of few healthy individuals (20-80) to determine the side effects and dosage of a specific medication. Phase II of the trial uses more persons (100-300) to determine the effectiveness of the new treatment for certain diseases. Phase III includes studying different populations and dosages' effectiveness and safety where the drugs are used in combination with other drugs. Phase IV includes the FDA's approval of drugs for use (Wong, Siah & Lo, 2019).

Word Count---200-- /200

How can I remember?

Through continuous studying of the research design and assessments using research methodology books. Group discussions will help in facilitating remembrance through analyzing various research resources and examples on previous clinical trials and their facilitation. Reading lecture notes and consulting my lecturer will also increase my ability to remember.

Word Count __48__ /50

Where can I go for additional information:

YouTube on Clinical trials success stories

Peer-reviewed articles online

Lecture notes and discussion

APA References

Wong, C. H., Siah, K. W., & Lo, A. W. (2019). Estimation of clinical trial success rates and related parameters. *Biostatistics (Oxford, England)*, 20(2), 273–286.

<https://doi.org/10.1093/biostatistics/kxx069>

World Health Organization (2021). Clinical Trials. https://www.who.int/health-topics/clinical-trials/#tab=tab_1

Key Term: Test of significance	Category: Assessment
Part 1: Definitions	
Personnel Definition:	Definition:
The test of significance is a form of assessment that seeks to determine if the research procedures are efficient. Besides, this helps in attaining the needed outcomes and testing the study claims. This enhances the assessment of the study's truth and if the attained outcome is the expected result.	Test of significance is the prescribed valuable procedure in comparison of the observed data with a hypothesis. This assists in defining the truth of the data being assessed and expressed as a probability. The hypothesis defines the claim within a statement regarding a specific parameter, including the population and its mean (Harrison et al., 2020).
Word Count __50__ /50	Word Count __50__ /50
Part 2: Explore with Words	
Antonym:	Opposite:
Marginal testing	Significance test
Words associated with:	Sentence:
Hypothesis testing	The test of significance was essential in determining if the hypothesis was null or an alternative.
Examples:	Non-Examples:
The null hypothesis, the alternative hypothesis	Essential in determining
Why did I choose this word?	Where did I encounter this term?
It was a new vocabulary term for me this semester.	Throughout the semester readings
Part 3: Visual, Graphic Organizer or Concept Map	
Visual representation of the term is showing term understanding.	
<p>Classification of tests of significance</p> <p>For Qualitative data:-</p> <ol style="list-style-type: none"> 1. Standard error of difference between 2 proportions ($SE_{p_1-p_2}$) 2. Chi-square test or χ^2 <p>For Quantitative data:-</p> <ol style="list-style-type: none"> 1. Unpaired (student) 't' test 2. Paired 't' test 3. ANOVA 	

Part 4: Analysis and Interpretation	
In this section, build an advanced understanding / expanded definition of the term.	
<p>Test of significance is the prescribed helpful procedure in comparison of the observed data with a hypothesis. This assists in defining the truth of the data being assessed and expressed as a probability. Such is critical in evaluating if the data collected and analyzed helps support the hypothesis formulated (Moore, Notz & Fligner, 2015). The hypothesis defines the claim within a statement regarding a specific parameter, including the population and its mean (Harrison et al., 2020). Testing the significance is essential in determining if two figures are different significantly, thus providing evidence. This is so as researchers require more evidence than subjective interpretations in studying. Besides, the test of significance helps in collecting statistical evidence critical in making claims. Such is critical in knowing how small P-values need to be for a researcher to reject a null hypothesis.</p>	
Word Count <u>142</u> /200	
How can I remember?	
<p>Through continuous studying of the research design and assessments using research methodology books. Group discussions will help facilitate remembrance by analyzing various research resources, and examples tested hypothesis to define the significant tests made. Reading lecture notes and consulting my lecturer will also increase my ability to remember.</p>	
Word Count <u>50</u> /50	
Where can I go for additional information:	
Online and physical school library	
Peer-reviewed articles/journals	
Lecture notes and references	
APA References	
<p>Harrison, A. J., McErlain-Naylor, S. A., Bradshaw, E. J., Dai, B., Nunome, H., Hughes, G. T., ... & Fong, D. T. (2020). Recommendations for statistical analysis involving null hypothesis significance testing. https://doi.org/10.1080/14763141.2020.1782555</p>	
<p>Moore, D. S., Notz, W. I., & Fligner, M. A. (2015). <i>The essential practice of statistics</i>. Macmillan Higher Education.</p>	