

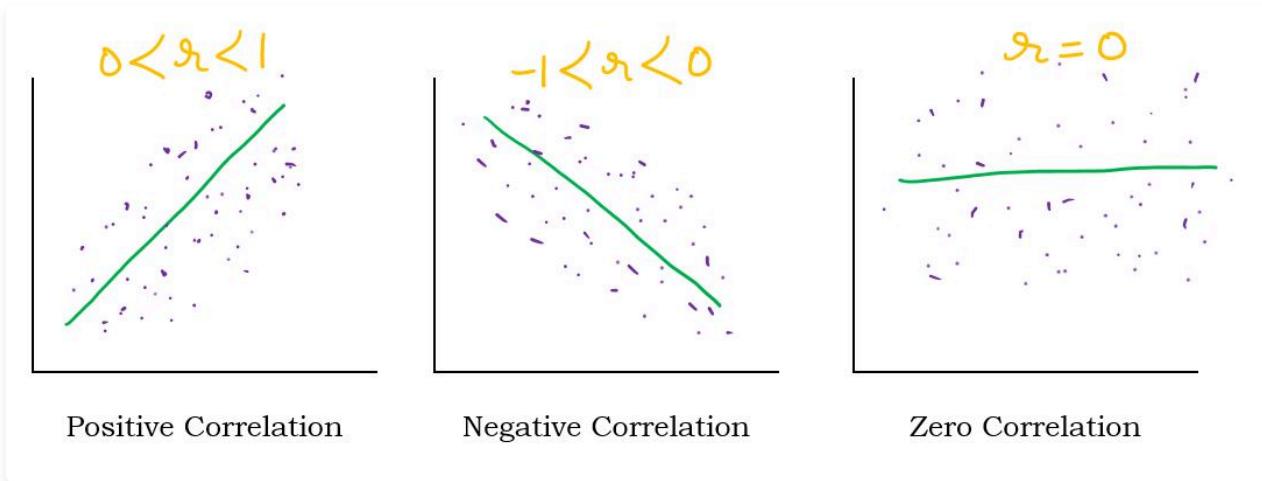
Auditing Course Material

Part 60 of 61 (Chapters 5901-6000)

1. Correlation Analysis

Correlation analysis is a valuable statistical tool employed to assess the relationship between two or more variables within a dataset. The correlation coefficient, often symbolized as "r," quantifies the strength and direction of this relationship. It ranges from -1 to +1, with various implications:

1. **Positive Correlation ($0 < r < +1$):** A positive correlation indicates that as one variable increases, the other tends to increase as well. For instance, in economics, there's typically a positive correlation between a person's income and their spending habits. As income rises, expenditure on goods and services also tends to increase.
2. **Negative Correlation ($-1 < r < 0$):** Conversely, a negative correlation implies that as one variable increases, the other tends to decrease. An example might be the relationship between temperature and winter coat sales. As temperatures rise, sales of winter coats typically decline.
3. **No Correlation ($r = 0$):** When the correlation coefficient is zero ($r = 0$), it signifies no linear relationship between the variables. For instance, there might be no significant correlation between shoe size and IQ; these two variables are unrelated in a linear sense.



However, it's crucial to recognize that correlation does not establish causation. Even if two variables have a strong correlation, it does not mean that one variable causes the other. For example, there may be a positive correlation between ice cream sales and the number of drownings during the summer. This does not mean that buying ice cream causes drownings but rather that both are influenced by the hot weather.

Canonical Correlational Analysis

Canonical Correlational Analysis (CCA) is a statistical technique used to explore the relationship between two sets of variables simultaneously. It is an extension of regular correlation analysis that deals with multiple sets of variables.

1. The major characteristic of correlation analysis is to seek out: **(UGC NET 26th June 2019 Morning Paper)**

- Variations among variables
- Association among variables
- Differences among variables
- Regression among variables

Check

Question: 1 of 1 questions

2. Factor Analysis

Factor analysis is a statistical technique used to simplify data and uncover the underlying structure of a set of variables. It identifies common factors that explain correlations among observed variables. The goal is to reduce complexity by identifying a smaller set of factors that account for most of the variance in the data. Thus it is a multivariate statistical test used for data reduction. Researchers interpret these factors based on their correlations with the original variables. It helps reveal hidden relationships and provides insights into underlying constructs.

Consider a market research study with numerous customer feedback variables, including product quality, price satisfaction, and customer service experience. Factor analysis can unveil key factors like "customer satisfaction" that summarize these variables, enabling businesses to focus on enhancing these core areas rather than analyzing each variable individually. By reducing data complexity, factor analysis provides valuable insights into the fundamental constructs and relationships within the dataset, aiding decision-making in a wide range of fields.

Another example, in psychology, a researcher may use factor analysis to understand the underlying traits that contribute to personality by analyzing correlations among various personality indicators like extroversion, agreeableness, and conscientiousness. This simplifies the understanding of personality by revealing the core factors driving these traits.

1. With which one of the following techniques communality is associated? (**UGC NET Sep 2013**)

- Case studies
- Factor analysis
- Univariate analysis
- SWOT analysis

Check

Question: 1 of 1 questions

3. Meta Analysis

Meta-analysis is a statistical method that combines results from multiple independent studies. By synthesizing data, it provides more robust conclusions. Researchers identify relevant studies, extract data, compute effect sizes, and weight them based on factors like sample size or study quality.

Imagine a pharmaceutical company develops a new drug to treat a specific medical condition. Several clinical trials conducted by different research groups evaluate the drug's efficacy, each with varying sample sizes and methodologies. A meta-analysis is employed to combine the results of these independent studies. By synthesizing the data, the meta-analysis can provide a more comprehensive and statistically robust assessment of the drug's effectiveness, taking into account a larger sample size and potential variations in study outcomes. This aggregated analysis helps regulatory agencies and healthcare professionals make informed decisions about the drug's approval and use.

File Drawer Problem

The File Drawer Problem is closely related to meta-analysis and refers to the issue of publication bias in the scientific literature. It arises when studies with statistically non-significant or inconclusive results (i.e., "negative" results) are less likely to be published or are "filed away" by researchers, while studies with statistically significant results (i.e., "positive" results) are more likely to be published and made available to the public.

1. The term "File drawer problem" is related to: **(UGC NET 29 Nov 2021 Evening)**

- Case history
- Meta analysis
- Ethnography
- Experimentation

Check

Question: 1 of 1 questions

4. Critical Discourse Analysis

Critical Discourse Analysis (CDA) is a research method for studying language in relation to its social context. It aims to understand how language is used in real-life situations, focusing on purposes, effects, cultural rules, and values conveyed. Language use is analyzed concerning its social, political, and historical context. CDA is a common qualitative research method in linguistics, sociology, anthropology, psychology, and cultural studies. It examines how language functions and creates meaning in various social contexts, including written and oral language, as well as non-verbal communication like tone and gestures.

CDA can be applied to political discourse to understand how language is used by politicians and political parties to convey their ideologies and persuade the public. Researchers may analyze speeches, campaign materials, or policy documents to uncover the underlying discursive strategies, persuasive techniques, and framing devices employed by political actors. By examining the social and political context surrounding these texts, CDA helps shed light on how language shapes public opinion, influences political decisions, and reflects broader societal power dynamics.

The concept of CDA was introduced by Norman Fairclough, a British linguist, in the 1980s. Foucault's ideas on discourse also influenced the development of CDA.

5. Content analysis

Content analysis is a research method used to systematically analyze and interpret the content of textual, visual, or audio materials. It involves unitizing the data, breaking it down into meaningful units for analysis. The method is transparent, allowing researchers to clearly see and understand how data is categorized and analyzed. It is also non-reactive, meaning it does not interfere with the subject's behavior since data is pre-existing and unobtrusive. Content analysis is highly flexible, accommodating various types of data and research objectives.

For example, researchers may use content analysis to examine news articles on climate change. They would unitize the articles into discrete elements, such as paragraphs or sentences, and categorize the content based on themes related to climate change (e.g., causes, impacts, policy responses). Through this analysis, researchers can identify prevalent narratives and patterns in media coverage of climate change

6. Cohort analysis

Cohort analysis is a research method used to study a specific group of individuals (cohort) who share a common characteristic or experience within a defined time frame. The cohort is followed and observed over time to track changes, behaviors, or outcomes related to the shared characteristic. This method is widely used in various fields, including epidemiology, social sciences, marketing, and business analytics.

For example, a marketing team may use cohort analysis to study the behavior of customers who joined the company's loyalty program in different years. By comparing the spending patterns and customer retention rates of these cohorts over time, the marketing team can identify trends and make informed decisions to improve customer engagement and loyalty program effectiveness.

7. Cultivation analysis

Cultivation analysis is a research approach used to study the impact of media on people's perceptions of the social world. It explores how prolonged exposure to certain media content, particularly television, influences individuals' beliefs, attitudes, and understanding of the real world. The theory behind cultivation analysis suggests that heavy exposure to media content, especially television programming, can shape viewers' perceptions and views of reality, leading them to adopt the social norms, values, and ideologies presented in the media.

For example, researchers might use cultivation analysis to examine how continuous exposure to crime-related television shows affects viewers' perceptions of crime rates and their feelings of personal safety.

8. Thematic analysis

Thematic analysis is a qualitative research method developed by psychologists Virginia Braun and Victoria Clarke. It is widely used for analyzing textual data, such as interviews, focus group discussions, surveys, and other written or transcribed materials. Thematic analysis aims to identify and analyze patterns (themes) within the data to gain a deeper understanding of the participants' experiences, beliefs, or perspectives.

For example, researchers might use thematic analysis to explore the experiences of cancer survivors. Through interviews with survivors, the data is transcribed and systematically analyzed. Themes such as "coping strategies," "support networks," and "positive life changes" may emerge, offering valuable insights into the challenges and growth experienced by cancer survivors.

1. The domain of application in thematic analysis is: **(UGC NET 10 Oct 2022 Morning)**

- Discourse revision
- Text integration
- Group comparison
- Visual aesthetics

Check

Question: 1 of 1 questions

9. Ethnographic content analysis

Ethnographic content analysis, introduced by sociologist David L. Altheide, is a research method that combines elements of ethnography and content analysis. It is used to study the cultural and social meanings embedded in textual or visual materials. Ethnographic content analysis goes beyond surface-level content analysis by taking into account the social and cultural context in which the data was produced and consumed.

For example, a researcher using ethnographic content analysis may study how a specific social media platform is used by a particular community. They would examine the textual and visual content shared on the platform while considering the users' cultural background, social norms, and communication patterns.

10. Path analysis

Path analysis is a statistical technique used to examine the relationships between multiple variables in a complex causal model. It is a form of structural equation modeling (SEM) that allows researchers to assess both direct and indirect effects of variables on each other. The relationships between variables are represented by structured linear regression equations, which show the paths or direct connections between the variables.

For example, in a study on academic achievement, a researcher may hypothesize that parental involvement, study habits, and motivation directly impact students' grades. Additionally, the researcher might propose that parental involvement influences motivation, which in turn affects study habits, indirectly impacting academic achievement. Using path analysis, the researcher can evaluate these relationships simultaneously and determine the strength and significance of the direct and indirect effects within the model, providing valuable insights into the factors that influence students' academic performance.

11. Simulation analysis

Simulation analysis is a computational method used to model and analyze complex systems or processes by constructing an artificial environment that mimics the real-world situation. In this approach, a simulation model is created, and relevant data and information are generated within this model to observe and analyze the behavior of the system over time. It allows researchers to experiment with different scenarios and understand how various variables and factors interact within the simulated environment.

Healthcare organizations utilize simulation analysis to improve patient care and resource allocation. In this context, a simulated environment represents a hospital or healthcare facility, with variables including patient arrivals, staff schedules, and resource availability. By running simulations, healthcare administrators can identify bottlenecks, optimize staff assignments, and test different scheduling policies to enhance patient flow and reduce waiting times. This approach aids in the efficient allocation of resources and the delivery of quality healthcare services.

Simulation analysis plays a crucial role in optimizing supply chain operations for businesses. Companies use simulation models to replicate their supply chain processes, including production, inventory management, and distribution. By adjusting parameters like order quantities, lead times, and production schedules, they can assess the impact of various strategies on cost, efficiency, and customer service. This enables businesses to make data-driven decisions to improve supply chain performance and adapt to changing market conditions.

12. Focus Group

The focus group technique is a qualitative research method used to gather insights and opinions from a small group of participants about a specific topic, product, service, or issue. In a focus group, a trained moderator facilitates a structured discussion among participants, encouraging them to express their thoughts, experiences, and perceptions in a group setting.



Here are the key characteristics and steps of the focus group technique:

1. **Participant Selection:** Researchers carefully select a small, diverse group of participants who have relevant experiences or perspectives related to the research topic. Typically, a focus group consists of 6 to 12 participants.
2. **Moderator:** A skilled moderator guides the discussion and ensures that it remains focused on the research objectives. The moderator follows a predefined set of questions or topics but also allows for spontaneous conversations and follow-up questions.
3. **Structured Discussion:** The moderator poses open-ended questions or topics to the group and encourages participants to share their thoughts, feelings, and experiences. These questions are designed to elicit rich, qualitative data.
4. **Group Interaction:** Participants interact with each other, responding to each other's comments and insights. This group dynamic can lead to the exploration of diverse viewpoints and the emergence of new ideas.
5. **Audio or Video Recording:** The focus group session is typically recorded, either through audio or video, to capture the entire discussion accurately. This recording helps researchers analyze the data later.
6. **Data Analysis:** After the focus group session, researchers transcribe and analyze the data. This analysis involves identifying common themes, patterns, and insights from participants' responses.
7. **Reporting and Findings:** The results of the focus group are summarized and reported, often with direct quotes from participants. These findings provide valuable qualitative data that can inform decision-making, product development, marketing strategies, or further research.

The focus group technique is particularly useful for exploring complex issues, understanding consumer perceptions, evaluating prototypes, testing ideas, and gaining insights into human behavior and attitudes. It is commonly employed in fields such as marketing, product development, social sciences, and healthcare to gather qualitative data and inform decision-making processes.

13. Triangulation

Triangulation is a research approach that involves using multiple methods, data sources, study groups, or theoretical perspectives to study a phenomenon. The idea is to enhance the credibility and reliability of research findings by cross-verifying and validating the results from different angles. Triangulation provides a more comprehensive and robust understanding of the research topic and helps researchers address potential biases and limitations in their study.

1. In research, the combination of different methods, study groups, local and temporal settings, and different theoretical perspectives in dealing with a phenomenon is called: (**UGC NET 28 Nov Evening 2021**)

- Triangulation
- Corpus
- Content analysis
- Mediation

Check

Question: 1 of 1 questions

14. Symbolic Interactionism

Symbolic interactionism is a sociological perspective that focuses on how individuals interpret and give meaning to the world through their interactions with others. This theory emphasizes the significance of symbols, language, and shared understandings in shaping human behavior and social interactions.

For example, in a classroom setting, symbolic interactionism would examine how students and teachers interpret and give meaning to various classroom activities, gestures, and verbal interactions. The shared symbols and understandings within the classroom community shape how students engage with the learning environment and how teachers respond to student behavior.

1. Symbolic interactionism is a (**UGC NET 06th Mar 2023 Evening**)

- Hypothesis
- Research question
- Review
- Theory

Check

Question: 1 of 1 questions

15. Phenomenology

Phenomenology is a philosophical approach to studying human experiences, emphasizing the subjective nature of human perception and the influence of the surrounding context. Researchers using phenomenology seek to understand how individuals' behavior is shaped by their relationship with the physical environment, objects, people, and situations. The focus is on describing, reflecting upon, and interpreting these lived experiences.

Phenomenology can be employed to investigate the lived experiences of individuals dealing with chronic illnesses such as diabetes or multiple sclerosis. Researchers would conduct in-depth interviews with patients, asking open-ended questions to uncover their personal perceptions, emotions, and coping strategies related to their condition. Through phenomenological analysis, the study aims to reveal the subjective nature of living with a chronic illness, shedding light on how individuals navigate their daily lives and interact with healthcare systems, medications, and support networks.

Hermeneutics plays a significant role in phenomenology, as it involves analyzing texts where individuals narrate their own experiences. Researchers draw meaning by connecting different passages within the narrative or relating them to broader themes expressed outside the story.

For example, in a phenomenological study on the experience of grief, the researcher may interview individuals who have recently lost a loved one. Through in-depth interviews, the participants share their personal narratives of the grieving process. The researcher then analyzes these narratives using hermeneutic interpretation, identifying common themes and connections within the stories. The study aims to gain a deeper understanding of how grief is experienced, interpreted, and lived by individuals, recognizing the unique and subjective aspects of their grief journeys.

1. An analysis of the subjects life for meaning has the focus of: (**UGC NET 10 Oct 2022 Evening**)

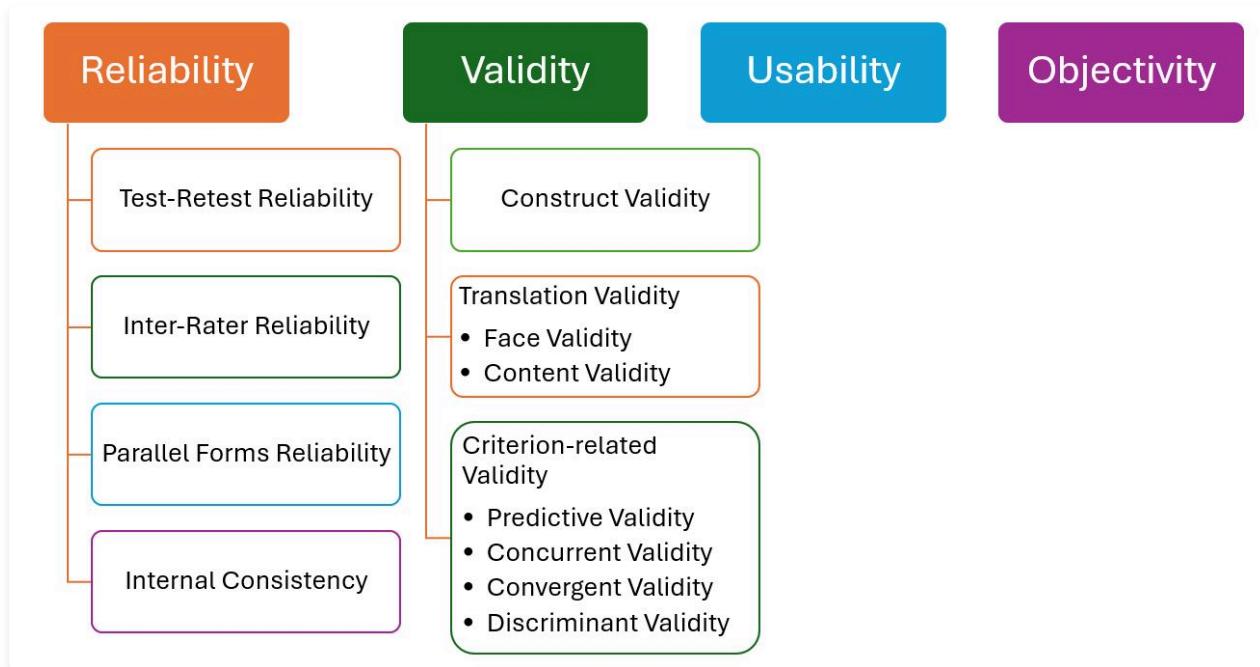
- Sociology
- Structuralism
- Pragmatism
- Phenomenology

Check

Question: 1 of 1 questions

1. Introduction

In the process of research, the characteristics of measurement play a pivotal role in ensuring the credibility and accuracy of collected data. Measurement, the process of assigning numbers to observations or events, must possess certain qualities to be considered reliable and valid.



Reliability stands as a cornerstone, reflecting the consistency and stability of measurement tools over time and across different conditions.

Validity, another critical characteristic, is concerned with the degree to which a measurement tool truly measures what it claims to measure. This multifaceted concept can be dissected into external and internal validity. Both dimensions are crucial in establishing the trustworthiness and applicability of research outcomes.

As researchers navigate the intricacies of measurement characteristics, considerations of usability and objectivity also emerge as essential components in the research process.

These elements contribute to the practicality and impartiality of measurement tools, ensuring that data collection methods are not only effective but also ethically sound and free from bias.

Let us discuss them one by one.

2. Reliability

Reliability is the consistency and stability of a measurement tool or procedure. A measurement is considered reliable if it produces consistent results when applied multiple times to the same subjects under similar conditions. In other words, if the same measurement is repeated, it should yield similar outcomes. A reliable measurement helps ensure that the results are not affected by random errors or fluctuations. For example, if a bathroom scale consistently gives the same weight measurement for an individual over multiple uses, it is considered reliable.

Types of Reliability

There are 4 different types of reliability:

1. Test-Retest Reliability

This type of reliability assesses the consistency of a measurement by administering the same test to the same individuals at two different time points. The scores obtained on both occasions should be highly correlated if the measure is reliable. For example, to test the test-retest reliability of a personality questionnaire, researchers administer the same questionnaire to a group of participants twice, with a time gap in between, and then correlate the scores obtained on both occasions.

2. Inter-rater Reliability

Interrater reliability measures the level of agreement between different raters or observers when assessing the same individuals or objects. It is important when the measurement involves subjective judgments or evaluations. For example, in a research study where multiple researchers are scoring the responses to open-ended survey questions, interrater reliability would be assessed by comparing the ratings given by different researchers to ensure consistency.

3. Parallel Forms Reliability

Parallel forms reliability assesses the consistency of a measurement by administering two different but equivalent versions of the same test to the same individuals. The scores obtained from both versions should show high correlation if the measure is reliable. For example, to test the parallel forms reliability of a knowledge test, researchers create two different versions of the test with the same difficulty level and content and administer them to the same group of participants. They then correlate the scores obtained from both versions.

4. Internal Consistency

Internal consistency reliability evaluates the degree of consistency among the items within a single measurement tool, such as a questionnaire or a scale. It is commonly assessed using measures like Cronbach's alpha. For example, in a customer satisfaction survey, the internal consistency of the survey's items can be measured by calculating Cronbach's alpha, which assesses how well the items within the survey measure the same underlying construct of customer satisfaction.

1. When the consistency of data collected is measured at different points of time, it is identified as. (**UGC NET 01 Evening**)

- Inter- rater reliability
- Internal reliability
- Split half reliability
- Test- retest reliability

Check

Question: 1 of 2 questions

3. Validity

Validity refers to the extent to which a measurement tool accurately measures what it is intended to measure. In other words, it measures the concept or construct it claims to assess. A valid measurement ensures that the results are meaningful and relevant to the research or study at hand. For example if a reading comprehension test accurately assesses a student's reading comprehension skills and not just their general knowledge, it is considered valid.

External and Internal Validity

Validity can be classified into external and internal validity.

Internal Validity

Internal validity is a measure of the accuracy of an experiment. It focuses on whether the manipulation of the independent variables (or treatments) actually caused the observed effects on the dependent variable(s). In other words, it assesses whether the observed effects are genuinely attributed to the treatment being studied and not influenced by other extraneous variables. Ensuring internal validity is crucial for drawing valid inferences about the causal relationship between the independent and dependent variables.

Consider an experiment that investigates whether a certain odor improves productivity among service workers. To enhance internal validity, the researcher conducts the experiment in a tightly controlled lab environment. The researcher controls factors like airflow, temperature, lighting, and sound to ensure that the specific odor exists in the desired amount and intensity. By doing so, the researcher can minimize the influence of outside forces on the results and increase the likelihood of drawing accurate conclusions about the odor's impact on productivity.

External Validity

External validity refers to the extent to which the results obtained in a research study can be generalized beyond the specific sample and context of the study. It addresses the question of whether the findings can be applied to a larger population or different settings. Higher external validity means that the results are more likely to be representative of the "real world" and applicable to various situations.

Suppose a research study examines consumer behavior in a controlled shopping environment (e.g., a simulated retail store). The external validity of the study would be higher if the sample used in the study accurately represents the broader population of consumers and if the findings can be extended to real-world retail stores in different locations and types of malls.

Types of Validity

Validity can also be classified into following 6 types:

1. Construct Validity

Construct validity gauges how well a measurement accurately represents the intended theoretical concept. It involves deriving hypotheses from relevant theories associated with the concept. For instance, a researcher studying intelligence might use a test measuring problem-solving abilities, memory, and reasoning to ensure it effectively captures the broader construct of intelligence. Construct validity ensures that conclusions drawn from a study align with underlying theories and is categorized into the "land of theory" (internal concepts) and the "land of observation" (external, observable phenomena).

Example: In examining the effectiveness of an educational program, the "land of theory" encompasses the conceptualization of how the program should function, while the "land of observation" involves real-world implementation and the measures used.

2. Translation Validity

Translation validity ensures that what is being measured accurately reflects the intended construct and includes face validity and content validity.

2.1 Face Validity

Face validity assesses whether an instrument or test appears, on the surface, to measure its intended construct. It involves a subjective judgment of adequacy.

Example: A math test with math-related questions and no unrelated content demonstrates good face validity for assessing mathematical skills.

2.2 Content Validity

Content validity ensures that the measurement aligns with the relevant content domain for the construct. This approach

assumes a detailed description of the content domain, making it suitable for constructs with well-defined criteria.

Example: Defining criteria for a "customer satisfaction survey" and evaluating the survey based on whether it includes questions relevant to customer experience and expectations.

3. Criterion-Related Validity

Criterion-related validity evaluates how well a measurement aligns with a standard or criterion. It includes sub-types like predictive, concurrent, convergent, and discriminant validity.

3.1 Predictive Validity

Definition: Predictive validity gauges how well a measurement can predict future outcomes or behaviors. It involves using a future criterion to see how accurately the current measurement anticipates results.

Example: If a high school placement test effectively predicts a student's performance in their first year of college, it demonstrates strong predictive validity.

3.2 Concurrent Validity

Definition: Concurrent validity compares a new measurement to an established one, known to differentiate between individuals based on the studied concept. It's about seeing if the new measurement aligns with what's already accepted.

Example: To assess a measure of stress, you might compare it with an existing stress assessment tool to ensure it aligns with established criteria.

3.3 Convergent Validity

Definition: Convergent validity checks how well a measure correlates with other measures theoretically linked to the same concept, even if they come from different methods.

Example: Proving the convergent validity of a happiness scale by showing strong correlations with other established happiness measures.

3.4 Discriminant Validity

Definition: Discriminant validity assesses how different a measurement is from others it should theoretically not resemble.

Example: Confirming the discriminant validity of a test of problem-solving skills by demonstrating low correlations with tests assessing creativity.

1. The appropriateness, meaningfulness and usefulness of the specific inferences made from the measures, is called
NET 03 Mar 2023 Morning)

Parallel Test Reliability

Test-Retest Reliability

Interrater Reliability

Validity

Check

Question: 1 of 2 questions

4. Usability

Practicability or usability refers to the feasibility and ease of using a particular research tool. It considers factors such as the time, resources, and effort required to implement the measurement. A practical and user-friendly measurement tool is essential for researchers to conduct their studies efficiently. For example, if a survey questionnaire is easy to understand, takes a reasonable amount of time to complete, and can be administered to a large group of participants without much effort, it is considered practical and usable.

1. In choosing a research tool which of the following are important considerations? (**UGC NET 13 Nov 2020 Even**)

- a. The validity of the research tool
- b. The reliability of the research tool
- c. Cost involved in terms of time and resources for use of research tool.
- d. Face validity of the research tool
- e. Opinion of the research supervisor

Only a, b and c

Only b, d and e

Only a, c and e

Only c, d and e

Check

Question: 1 of 1 questions

5. Objectivity

Objectivity refers to the degree to which a measurement is free from the influence of the researcher's biases or interpretations. It ensures that the measurement process is objective and unbiased, leading to more reliable and credible results. For example, if multiple researchers independently conduct a measurement and consistently arrive at the same results, the measurement is considered objective.

1. A common test in research demands much priority on

Objectivity

Reliability

All of the above

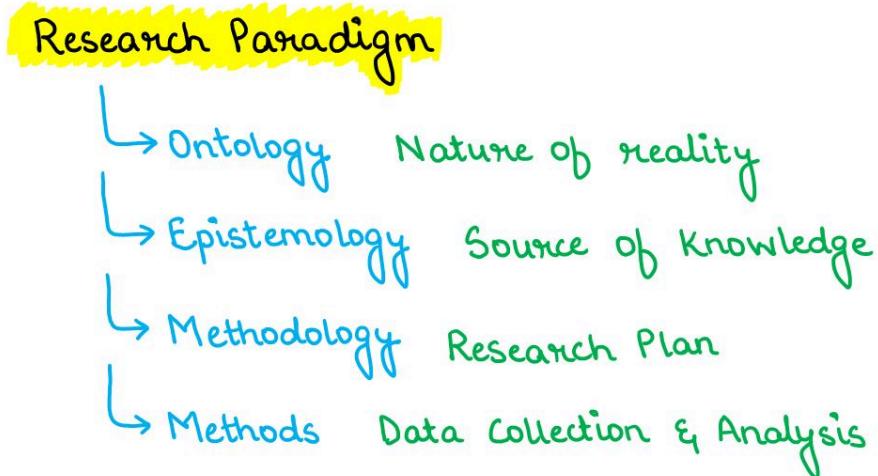
Usability

Check

Question: 1 of 1 questions

1. Research Paradigm

According to Thomas Kuhn (1962), a *research paradigm* refers to a shared set of beliefs and agreements among scientists that guide how problems are understood and addressed. It is a comprehensive belief system or framework that shapes research and practices.



There are 4 essential elements of a research paradigm:

1. **Ontology** - Ontology deals with the nature of our beliefs about reality. Researchers hold assumptions about the existence of reality and what can be known about it. This question leads researchers to inquire about the kind of reality that exists, such as whether it is singular, socially constructed, or multiple. For example, a researcher exploring the concept of happiness might question whether happiness is an objective state or a socially constructed perception.
2. **Epistemology** - Epistemology is concerned with how knowledge is acquired and validated. It studies the nature and forms of knowledge and how it can be acquired and communicated to others. This question leads researchers to debate the possibility and desirability of objectivity, subjectivity, causality, validity, and generalizability. For example: A researcher investigating the effects of a new educational program might consider whether they can obtain objective and generalizable knowledge about its impact on students' performance.
3. **Methodology** - Methodology refers to the strategy, plan of action, or design that guides a researcher's choice of research methods. It involves decisions about data collection tools and techniques. Methodology helps researchers determine how the world should be studied. For example, a researcher interested in studying consumer behavior might choose to use surveys as the primary data collection method to gather quantitative data.
4. **Methods** - Methods refer to the specific means of collecting and analyzing data, such as questionnaires and interviews. The choice of methods depends on the research project's design and the researcher's theoretical mindset. It is essential to note that the use of specific methods does not imply specific ontological and epistemological assumptions. For example, a researcher studying the impact of climate change on agricultural practices might use satellite imagery and statistical analysis to analyze large-scale data.

In *Positivism*, there is a belief in absolute truths that can be discovered through objective and scientific research. Generalizability and replicability are essential in this paradigm. On the other hand, *Interpretivism* sees truth as context-dependent and socially constructed. Understanding the context and experiences of individuals is crucial in this paradigm. These two are extreme ends of the research paradigm spectrum, and there are many types of paradigms between these two extremes.

1. In the context of Research Methodology, what does the word Ontology refer to? (**UGC NET 11 July 2022 Even**)

- Research papers and journals and their citation.
- Cancers, diseases and their treatments.
- A word indexing method.
- Concepts and categories, their properties and relationships.

Check

Question: 1 of 2 questions

Few most common paradigms are explained next.

2. Positivism

Positivism assumes that reality exists independently of humans (outside of us) and absolute. The ontological position of positivists is that of *naive realism* i.e. positivists strive to understand the social world like the natural world. Like in nature, there is a cause-effect relationship between phenomena which can be predicted with certainty in the future, same can be applied to the social world. Because reality is context free, different researchers working in different times and places will converge to the same conclusions about a given phenomenon.

The epistemological position of positivists is that of *objectivism*. Researchers come in as objective observers to study phenomena that exist independently of them and they do not affect or disturb what is being observed. They will use language and symbols to describe phenomena in their real form, as they exist, without any interference whatsoever. Positivists believe that there are laws governing social phenomena, and by applying scientific methods, it is possible to formulate these laws and present them through factual statements.

Positivist methodology relies heavily on *experimentation*. Research located in this paradigm relies on deductive logic, formulation of hypotheses, testing those hypotheses, offering operational definitions and mathematical equations, calculations, extrapolations and expressions, to derive conclusions. The approach to analysing data is deductive. Data collected is mostly numerical or quantitative. Sometimes it is also referred as *Hypothetico-deductive paradigm*.

According to the positivist approach, research is deemed to be of good quality if it has a) internal validity b) external validity c) reliability d) objectivity.

1. Scientists should put aside, their personal beliefs and biases and see the world as it "really" is. Which one of the philosophical positions supports the above statement? (**UGC NET 27 Nov Evening 2021**)

- Positivism
- Constructivism
- Inductivism
- Post-positivism

Check

Question: 1 of 1 questions

3. Interpretivism or Constructivist Paradigm

Interpretivism rejects the notion that a single, verifiable reality existing independent of our senses. Interpretive ontology is *anti-foundationalist/relativist*. It refuses to adopt any permanent, unvarying (or foundational) standards by which truth can be universally known. Instead, interpretivists believe in socially constructed multiple realities, hence also known as *Constructivist Paradigm*. Truth and reality are created, not discovered. It is not possible to know reality as it is because it is always mediated by our senses.

Interpretive epistemology is *subjective*. Individuals interact with other individuals and society and ascribe meaning and names to different social phenomena. The existence of multiple knowledges is accepted with the acknowledgement that different researchers bring different perspectives to the same issue. The goal of interpretive research is not to discover universal, context and value free knowledge and truth but to try to understand the interpretations of individuals about the social phenomena they interact with.

Methodology applied is *naturalist* which requires that social phenomena be understood through the eyes of the participants rather than the researcher. The researcher utilises data gathered through interviews, discourses, text messages and reflective sessions, with the researcher acting as a participant observer. Interpretivists collect mostly *qualitative (verbal) data* from participants over an extended period of time, as in ethnography and case studies. The approach to analysing data is *inductive*, i.e. the researcher tries to discover patterns in the data which are collapsed under broad themes to understand a phenomenon and generate theory. This is the polar opposite of the deductive approach, in which researchers start off by identifying patterns and themes before starting the data collection process; once data is collected, researchers would search through the data for words, statements and events which are instances of the pre-identified patterns and themes. Sometimes it is also referred as *Emperico-inductive paradigm*.

4. Post-positivism or Pragmatic Paradigm

According to educational researchers, the social world cannot be studied in the same way as the natural world, that the social world is not value free and that it is not possible to provide explanations of a causal nature, modifications were made to relax some of the assumptions. This led to a paradigm, known as the *Postpositivist paradigm*.

So, these theorists looked for approaches to research that could be more practical and pluralistic approaches that could allow a combination of methods that could shed light on the actual behaviour of participants, the beliefs that stand behind those behaviours and the consequences that are likely to follow from different behaviours. This gave rise to a paradigm that advocates the use of mixed methods as a pragmatic way to understand human behaviour, hence known as *Pragmatic paradigm*.

This paradigm accepts that reality is imperfect, and that truth is not absolute but probable. It allows for observations without experimentation or formulation of hypotheses to be tested. According to Guba (1990), whereas the Positivist paradigm maintains the belief that reality is out there to be studied, captured and understood, the Postpositivist accepts that reality can never be fully understood; but at best, only approximated.

Post-positivism started as a reaction of educational researchers to the limitations of positivism as a paradigm. According to them, positivism cannot fulfil the requirements for social sciences' research as it bases itself on observable and empirical analytic facts. The researchers of social sciences and education came with the idea of mixed paradigm combining positivism and interpretivism (pluralist approach). Hence the research methodology used phenomenological research, ethnographic research, action research etc.

1. Which one of the following research procedures will figure under post positivistic approach? (**UGC NET 24th Sem Morning paper**)

- Experiment Study
- Ex post facto Study
- Normative Survey
- Ethnographic Study

Check

Question: 1 of 1 questions

5. Critical Theory

Critical theory originates from the works of a group of twentieth century authors who were affiliated with the Institute of Social Research at the University of Frankfurt, hence the name '*the Frankfurt School*'. They include Herbert Marcuse, Theodor Adorno, Max Horkheimer, Erich Fromm and later Jürgen Habermas. The ontological position of critical theorists is that of *historical realism*. It is assumed that a reality exists, but it has been shaped by cultural, political, ethnic, gender and religious factors which interact with each other to create a social system.

Epistemologically, critical theory is *transactional* in that it is assumed that no object can be researched without being affected by the researcher i.e. there is an interaction between the researcher and the participant. The aim of critical educational research is not merely to explain or understand society but to change it. The task of critical educational researchers is to confront those in positions of power and expose the oppressive structures that subjugate people and create inequality.

Critical methodology is *dialogic and dialectical*; it requires the investigator to engage the subjects in dialogue with the aim of bringing about a change in their outlook on social systems that keep them deprived of intellectual and social needs. To prevent the possibility of the participants being marginalized, researchers use a *collaborative approach* and engage the subjects in formulating questions, data collection, and analysis etc. The methodologies employed by critical educational researchers: critical ethnography, critical discourse analysis, action research, ideology critique, etc. In critical research, mostly qualitative data is generated, although quantitative data could also be used.

6. A Comparison

A comparison of various approaches is given below:

| | Positivism | Postpositivism | Interpretivism | Critical |
|--------------|--|--|---|---|
| Ontology | Reality is 'out there'. It is an absolute that can be discovered and measured with work. | Reality is 'out there', but there may be limits to our ability to accurately capture it. | Reality is made by people in social ways – it is product of mutual understanding. | Reality is a product of power relations. It is produced through these tensions. |
| Epistemology | The knower is distinct from the objective known. We measure and analyze. | A researcher builds an approximation of the object of research. | Knowledge is co-constructed. We know by engaging in building, sharing etc. | Knowledge is political and value laden. We know through values and stand point. |
| Examples | Biology, Mathematics | Psychology, Medicine | Education, Psychoanalysis | Sociology, Politics |

1. Types of Research Grouping

An array of educational and professional gatherings serves as valuable platforms for knowledge sharing and skill development. Workshops, seminars, conferences, and symposiums are distinct events, each tailored to meet specific goals and expectations. In this discussion, we will explore the unique characteristics and purposes of these gatherings, shedding light on how they facilitate learning, exchange of ideas, and collaboration. Whether you're seeking hands-on training, academic discourse, or broad-ranging discussions, these diverse forums offer rich opportunities for growth and interaction.

Workshops

Hands-on, skill-focused group training

Seminars

Lectures, discussions, and debates

Conferences

Diverse, multi-topic gatherings

Symposiums

Expert opinions on specific topics

2. Workshop

A workshop is a brief, intensive course for a small group, emphasizing the development of a skill or technique for solving a specific problem. Workshops provide a larger scope for hands-on experience and active participation. Participants engage in practical exercises, group activities, and hands-on training to gain practical knowledge. Workshops are target-oriented and encourage group-based reflection on the skills being taught. The largest portion of a workshop is focused on "hands-on practice" or laboratory work, reinforcing and implementing the concepts or techniques taught in the lecture and demonstration process.

Few examples of Workshops are listed below:

- *Photography Workshop:* A workshop where aspiring photographers learn about camera settings, composition, and post-processing techniques through hands-on practice and guidance from an experienced photographer.
- *Culinary Skills Workshop:* A workshop where individuals interested in cooking can enhance their culinary skills by preparing dishes under the supervision of a professional chef.

1. Which one of the following has larger scope for the possibility of hands on experience? **(UGC NET 18 Dec 201**

Conference

Workshop

Symposium

Seminar

Check

Question: 1 of 2 questions

3. Seminar

Seminars involve academicians or subject matter experts delivering lectures or presentations to an audience on specific educational topics or themes. They are a form of academic instruction that encourages reflective deliberations based on the subject matter. Seminars often involve questioning, discussion, and debates, fostering active engagement among the participants. The instructor prepares concepts and techniques to be presented using visual materials, interactive tools, demonstrations, and take-home material related to the lecture.

Few examples of Seminars are listed below:

- *Medical Research Seminar*: A seminar where medical experts and researchers present their latest findings and engage in discussions on cutting-edge topics in healthcare.
- *Financial Planning Seminar*: A seminar conducted by financial experts to educate attendees about investment strategies, retirement planning, and financial management.

1. When academicians are called to deliver lecture or presentation to an audience on certain topics or a set of top educational nature, it is called (**UGC NET Dec 2014**)

Training Program

Seminar

Workshop

Symposium

Check

Question: 1 of 2 questions

4. Conference

Conferences are events meant for multiple target groups, offering a wider spectrum of ideas and issues. They bring together diverse professionals, researchers, and practitioners to participate in group discussions and showcase new research. Conferences typically include various sessions, such as keynote speeches, parallel tracks, poster presentations, and workshops. Conferences are formal meetings where participants exchange views on various topics and can take place in different fields, not necessarily academic. They involve consultation and discussion on multiple topics by delegates from various backgrounds.

Few examples of Conferences are listed below:

- *Technology Conference*: An industry conference that brings together tech professionals, startups, and innovators to discuss emerging technologies, share insights, and showcase new products.
- *Environmental Sustainability Conference*: A conference where experts from various fields gather to address environmental issues, exchange ideas on sustainability, and propose solutions for a greener future.

1. In which of the following activities, potential for nurturing creative and critical thinking is relatively greater? (**UGC 2018**)

- Preparing research summary
- Presenting a seminar paper
- Participation in a workshop
- Participation in research conference

Check

Question: 1 of 2 questions

5. Symposium

A symposium is a formal gathering in an academic setting where participants are experts in their fields. Experts present their opinions or viewpoints on a chosen topic of discussion. It can be considered a smaller scale conference with a smaller number of delegates, covering a single topic or subject. Symposia are similar to conferences in that speakers come together to give their opinions on a chosen subject, but symposia are usually completed in a single day.

Few examples of Symposia are listed below:

- *Literary Symposium*: A one-day symposium where renowned authors and scholars share their perspectives on a specific literary genre, exploring its evolution and impact on culture.
 - *Art History Symposium*: An academic symposium focusing on a particular era or artistic movement, with art historians presenting research and interpretations of relevant artworks.
-

6. Other Groupings

Congress

A Congress is an annual event within a specific discipline, showcasing notable achievements and breakthroughs in that field. These gatherings are typically attended by leading experts in the respective discipline and feature a series of invited talks.

Examples of Congresses:

- *Medical Congress*: An annual gathering of healthcare professionals, researchers, and practitioners to discuss the latest advancements in medical science and patient care.
- *Space Exploration Congress*: A congress that assembles scientists, engineers, and astronauts to share discoveries and innovations in space exploration and technology.

Convention

A Convention, on the other hand, is a more substantial gathering, often involving thousands of participants, characterized by a formal agenda and program. Its primary objective is to formulate policies or strategies on various matters.

Examples of Conventions:

- *Political Convention*: A large-scale event where political parties nominate candidates for elections and establish their party platforms.
- *International Trade Convention*: A global gathering of trade professionals and policymakers aiming to negotiate trade agreements and discuss international economic policies.

Colloquium

In a Colloquium, distinguished experts or eminent academicians deliver lectures on a specific subject, followed by a question and answer session. These events are purely academic in nature.

Examples of Colloquia:

- *Physics Colloquium*: A gathering where leading physicists present their research findings and engage in discussions about cutting-edge developments in the field.
 - *Literary Colloquium*: An academic colloquium where renowned authors and literary scholars deliver lectures and analyze specific works of literature, fostering intellectual discourse in the literary community.
-

1. Thesis

A Thesis is a hypothesis or conjecture. The word "thesis" is coined from the Greek derivative of the word meaning "position", and refers to an intellectual proposition. A thesis may be an unproved statement, a hypothetical proposition, put forward as a premise.

A thesis is a formal and comprehensive research document that presents the findings of original research conducted by a student or researcher to fulfill academic requirements for a higher degree, such as a Master's or Ph.D. It is a significant piece of scholarly work that demonstrates the author's understanding of the subject, research skills, and ability to contribute new knowledge to their field of study.

A well-written thesis should follow a prescribed format and style of referencing, usually specified by the academic institution or department. It typically involves the following key elements:

- *Title Page*: The title page includes the title of the thesis, the author's name, the name of the academic institution, the degree for which the thesis is submitted, and the date of submission.
- *Abstract*: The abstract is a concise summary of the thesis, providing an overview of the research problem, objectives, methods, key findings, and conclusions. It allows readers to quickly understand the scope and significance of the study.
- *Table of Contents*: The table of contents lists all the chapters and sections of the thesis, along with their corresponding page numbers, facilitating easy navigation through the document.
- *List of Figures and Tables*: If the thesis contains figures, graphs, charts, or tables, this section lists them along with their respective page numbers.
- *Acknowledgments*: In this section, the author expresses gratitude to individuals, organizations, or institutions that have provided support, guidance, or resources during the research process.
- *Introduction*: The introduction sets the context for the research, presents the research problem or question, outlines the objectives, and provides a rationale for the study.
- *Literature Review*: The literature review critically analyzes existing scholarly work related to the research topic, highlighting key theories, concepts, and gaps in knowledge.
- *Methodology*: The methodology chapter explains the research design, data collection methods, sampling techniques, and data analysis procedures used in the study.
- *Results*: In this chapter, the research findings are presented, often using tables, graphs, or figures to illustrate the data.
- *Discussion*: The discussion chapter interprets the results in light of the research objectives, relates them to existing literature, and discusses their implications.
- *Conclusion*: The conclusion summarizes the main findings of the research, restates the research problem and objectives, and offers final insights and recommendations.
- *Recommendations*: In some theses, a separate chapter is dedicated to providing practical recommendations based on the research findings.
- *Future Research*: Similarly, some theses may include a section on potential areas for future research and study.
- *References*: The references section lists all the sources cited in the thesis using a specified citation style (e.g., APA, MLA, Harvard).
- *Bibliography*: The bibliography includes a comprehensive list of all the sources consulted during the research, even if they were not directly cited in the thesis. It helps those interested in further research.
- *Appendices*: The appendices contain additional materials that support or complement the main text, such as questionnaires, interview transcripts, or supplementary data.

It's important to note that the above chapterization is a general guideline, and the actual structure may vary based on the specific requirements and guidelines provided by the academic institution or research advisor.

1. If you wanted to understand the theoretical reasons that led the researchers to conduct a project, you would read section of their research article? (**UGC NET 05 Mar 2023 Evening**)

- References
- Introduction
- Discussion
- Abstract

Check

Question: 1 of 2 questions

2. Dissertation

A dissertation is a lengthy, formal document that argues in defense of a particular thesis.

The term "Dissertation" is derived from the Latin word *dissertatiō*, meaning "discourse" and is a document that presents the author's research and findings and, in most cases, is submitted in support of candidature for a degree or professional qualification. The research performed to support a thesis must be original and substantial. The dissertation must illustrate this aspect and highlight original contributions.

Your dissertation is your research, which demonstrates your understanding of the subject in a clear manner..

A dissertation report may comprise the following main chapters:

1. *Introduction*- An overview of the problem; summary of extant work and, the thesis statement.
2. *Literature Review*-the chapter that summarizes another work related to your topic.
3. *Methodology*- procedures utilized for the research study and the conceptual model.
4. *Data Presentation, Evaluation, Analysis and Interpretation* -
5. *Conclusion*-the complete summary of the research findings.

You must include suitable pages for definitions, illustrations and graphs, footnotes and references, bibliography, abstract, summary, acknowledgement, certificates, contents and title pages.

1. A detailed description of methodology of research is required in (**UGC NET Aug 2016**)

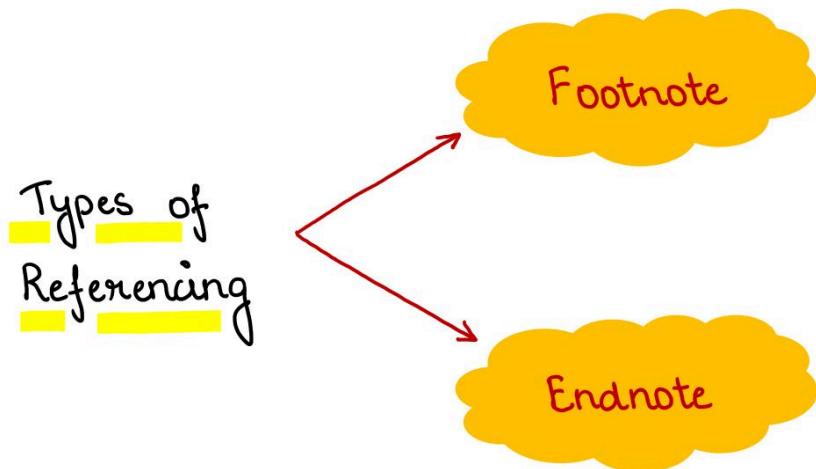
- Conference and Seminar Papers
- Seminar paper/Articles
- Thesis/Dissertation
- Symposium/Workshop

Check

Question: 1 of 2 questions

1. What is Referencing

Referencing is the practice of acknowledging and citing the sources of information used in research or academic work. It involves providing proper attribution to the authors and creators of original works, ensuring intellectual honesty, and allowing readers to trace the origin of information. Referencing is a critical component of scholarly writing as it adds credibility and validity to the research and supports the ideas presented.



Different Types of Referencing are given below:

1. *Footnote Referencing*: In this system, citations are placed as footnotes at the bottom of the page where the information is referenced. The corresponding number or symbol in the text directs readers to the relevant footnote. Footnote referencing is often used in humanities and social sciences.
2. *Endnote Referencing or Citation-Sequence System*: In this system, citations are listed chronologically at the end of the text or each chapter. The in-text citation is a superscripted number or bracketed number that corresponds to the numbered list of references. Endnote referencing is commonly used in scientific and technical disciplines.

Citations serve inter alia the following purposes:

- Establish the credibility of the research.
- Enable assessment of the quality and timeliness of the research.
- Acknowledge the contributions of others and sources of information in your dissertation work.
- Provide identification of material used in your research or quoted in your dissertation report.
- Facilitate inclusion of material of supplemental value.
- Intellectual Honesty.

The citation should provide the following bibliographic information:

1. Author(s) surname(s), first name(s) or initials
2. Name of the article, book or journal
3. Editors (if applicable)
4. Publishers Name and Location
5. Volume and Issue Number or month of publication (in case of a journal)
6. Year published
7. ISBN (if applicable)
8. The exact page numbers if your reference is a direct quotation, a paraphrase, an idea, or is otherwise directly drawn from the source. [p – page, pp – pages]

To make the reference list and bibliography consistent and easy to read across different papers there are predefined styles stating how to set them out - these are called *citation styles*.

1. In a thesis 'Format and styles of referencing' have been inappropriately followed, this is an example of (**UGC N 2019 Morning Paper**)

- Inability of the researcher to write a thesis
- Unethical practice of the researcher
- Technical lapse on the part of researcher
- Lack of commitment on the part of researcher to write a thesis

Check

Question: 1 of 1 questions

2. Harvard Style

Harvard referencing is the most well used referencing style in the UK and Australia, and is encouraged for use with the humanities. It emphasizes the author's name and date for in-text citations. It includes a reference list at the end of the document.

Generally, Harvard Reference List citations follow this format:

Last name, First Initial. (Year published). *Title*. Edition. (Only include the edition if it is not the first edition). City: Publisher, Page(s).

(Please note that *Title* has to be written in Italic)

Citations are listed in alphabetical order by the author's last name. If there are multiple sources by the same author, then citations are listed in order by the date of publication.

Reference examples

Books with One Author, and first edition

Patterson, J. (2005). *Maximum ride*. New York: Little, Brown.

Books with One Author, and NOT the first edition

Dahl, R. (2004). *Charlie and the chocolate factory*. 6th ed. New York: Knopf.

Books with Two or More Authors

Desikan, S. and Ramesh, G. (2006). *Software testing*. Bangalore, India: Dorling Kindersley, p.156.

Vermaat, M., Sebok, S., Freund, S., Campbell, J. and Frydenberg, M. (2014). *Discovering computers*. Boston: Cengage Learning, pp.446-448.

Daniels, K., Patterson, G. and Dunston, Y. (2014). *The ultimate student teaching guide*. 2nd ed. Los Angeles: SAGE Publications, pp.145-151.

Chapters in Edited Books

Bressler, L. (2010). My girl, Kylie. In: L. Matheson, ed., *The Dogs That We Love*, 1st ed. Boston: Jacobson Ltd., pp. 78-92.

* When citing a chapter in an edited book, the edition is displayed, even when it is the first edition.

Multiple Works by the Same Author (If there are multiple sources by the same author, then citations are listed in order by the date of publication)

Brown, D. (1998). *Digital fortress*. New York: St. Martin's Press.

Brown, D. (2003). *Deception point*. New York: Atria Books.

Brown, D. (2003). *The Da Vinci code*. New York: Doubleday.

Print Journal Articles

The standard structure of a print journal citation includes the following components:

Last name, First initial. (Year published). Article title. *Journal*, Volume (Issue), Page(s).

Ross, N. (2015). On Truth Content and False Consciousness in Adorno's Aesthetic Theory. *Philosophy Today*, 59(2), pp. 269-290.

Dismuke, C. and Egede, L. (2015). The Impact of Cognitive, Social and Physical Limitations on Income in Community Dwelling Adults With Chronic Medical and Mental Disorders. *Global Journal of Health Science*, 7(5), pp. 183-195.

Journal Articles Found on a Database or on a Website

When citing journal articles found on a database or through a website, include all of the components found in a citation of a print journal, but also include the medium ([online]), the website URL, and the date that the article was accessed.

Raina, S. (2015). Establishing Correlation Between Genetics and Nonresponse. *Journal of Postgraduate Medicine*, [online] Volume 61(2), p. 148. Available at: <http://www.proquest.com/products-services/ProQuest-Research-Library.html> [Accessed 8 Apr. 2015].

Print Newspaper Articles

Weisman, J. (2015). Deal Reached on Fast-Track Authority for Obama on Trade Accord. *The New York Times*, p.A1.

Newspaper Articles Found on a Database or a Website

Harris, E. (2015). For Special-Needs Students, Custom Furniture Out of Schoolhouse Scraps. *New York Times*, [online] p.A20. Available at: <http://go.galegroup.com> [Accessed 17 Apr. 2015].

Print Magazines

Davidson, J. (2008). Speak her language. *Men's Health*, (23), pp.104-106.

Websites

When citing a website, use the following structure:

Last name, First initial (Year published). Page title. [online] Website name. Available at: URL [Accessed Day Mo. Year].

When no author is listed, use the following structure:

Website name, (Year published). Page title. [online] Available at: URL [Accessed Day Mo. Year].

Messer, L. (2015). 'Fancy Nancy' Optioned by Disney Junior. [online] ABC News. Available at: <http://abcnews.go.com/Entertainment/fancy-nancy-optioned-disney-junior-2017/story?id=29942496#.VRWbWJwmbs0.twitter> [Accessed 31 Mar. 2015].

Mms.com, (2015). M&M'S Official Website. [online] Available at: <http://www.mms.com/> [Accessed 20 Apr. 2015].

Blogs

Last name, First initial. (Year published). Post title. [Blog] Blog name. Available at: URL [Accessed Day Mo. Year].

Cohen, M. (2013). *Re-election Is Likely for McConnell, but Not Guaranteed.* [Blog] FiveThirtyEight. Available at: <http://fivethirtyeight.blogs.nytimes.com/2013/07/01/re-election-is-likely-for-mcconnell-but-not-guaranteed/> [Accessed 4 Apr. 2015].

3. American Psychological Association (APA) style

APA is an author/date based style. This means emphasis is placed on the author and the date of a piece of work to uniquely identify it. It is widely used in social sciences, psychology, and education. It emphasizes the author's name and publication date for in-text citations. Further it provides a comprehensive reference list at the end of the document.

Few In-text citation examples are given below:

Page specified, author mentioned in text

Lutz & Huitt (2010, p. 4) argue that "the statistical significance of ..."

Page specified, author not mentioned in text

The results were consistent throughout the study (Fernández-Manzanal, Rodríguez-Barreiro, & Carrasquer, 2007).

Six authors

The study found that ... (Sania et al., 2011)

No author

The data presented ("How sleep enhances memory retention", 2015).

Reference examples

Book with one author

Author's last name, First and Second Initial. (Year). *Title italic*. Publication location: Publishing company.

Townsend, R. M. (1993). *The medieval village economy*. Princeton, NJ: Princeton University Press.

Book with an editor

Editor's last name, First and Second Initial. (Ed.). (Year). *Title italic*. Publication location: Publishing company.

McRae, M. W. (Ed.). (1993). *The literature of science: Perspectives on popular science writing*. Athens: University of Georgia Press.

Journal article - one author

Author's last name, First and Second Initial. (Year). Article title. *Journal title*, volume number(issue number*), page numbers.

Yeh, M. (1996). "The cult of poetry" in contemporary China. *Journal of Asian Studies*, 55(2), 51-80.

Journal article - 3 authors

Author's last name, First and Second Initial., Author's last name, First and Second Initial., & Author's last name, First and Second Initial. (Year). Article title. *Journal title*, volume number(issue number*), page numbers.

White, S., Winzelberg, A., & Norlin, J. (1992). Laughter and stress. *Humor*, 5, 43-355.

Newspaper article

Author's last name, First and Second Initial. (Year, Month Date). Article title. *Newspaper title, volume and/or issue number (if applicable)*, pp. page numbers.

Taylor, P. (1993, December 27). Keyboard grief: Coping with computer caused injuries. *Globe and Mail*, pp. A1, A4.

Online journal article

Author's last name, First and Second Initial. (Year). Article title. *Journal title, volume(issue number, if not continuously paginated)*, page numbers.

Borsari, B., & Carey, K. B. (2000). Effects of a brief motivational intervention with college student drinkers. *Journal of Consulting and Clinical Psychology*, 68, 728-733.

Web Sites

Organization or Author's Last Name, First Initial. Middle Initial. (Publication Year, Month Day) *Title of document*. Print Publication Information. Retrieved Month Day, Year, from URL

1. If the source does not have a date of publication, use (n.d.).

2. If the publication has no author, begin with the title and then the date.

American Psychological Association Task Force on the Sexualization of Girls. (2007). *Report of the Task Force on the Sexualization of Girls*. Washington, DC: Author. Retrieved April 12, 2008, from <http://www.apa.org/pi/wpo/sexualizationrep.pdf>

1. In relation to code of conduct in research, what does APA stand for?

- Association of Psychological Assessments
- Australian Psychological Association
- Advanced Psychological Authority
- American Psychological Association

 Check

Question: 1 of 1 questions

4. Other Styles

Chicago and Turabian style

These are two separate styles but are very similar, just like Harvard and APA. These are widely used for history and economics.

Here are some examples of the Chicago style:

In-text citation

Place this part right after the quote or reference to the source in your assignment.

(Author Surname Year Published)

They Felt they were developing ground-breaking technology and didn't want their project to get shelved (Lakin 1976)

Books

Author Surname, Author Forename. Year Published. *Title*. City: Publisher.

Lakin, Patricia. *Steve Jobs*.

Chapter of an edited book

Author Surname, Author Forename. Year Published. 'Chapter Title'. In *Title*, Pages Used. City: Publisher. <http://Website URL>.

Walwicz, Ania. 2008. 'Australia'. In *True Blue*, 1st ed., 205. Crows Nest: Allen & Unwin.

Magazine

Author Surname, Author Forename. Year Published. 'Title'. *Publication Title*. <http://Website URL>.

Kumuyi, and William. 2007. 'Axioms Of Effective Leadership'.

Journal

Author Surname, Author Forename. Year Published. 'Title'. *Publication Title* Volume number (Issue number): Pages Used. doi:DOI Number.

Davidian, M., and T. A. Louis. 2012. 'Why Statistics?'. *Science* 336 (6077): 12-12. doi:10.1126/science.1218685.

Website

Author Surname, Author Forename. Year Published. 'Title'. <http://Website URL>

Wiliam, Sydney Australia. 2014. 'The Fear Of Communism In Australia, The Spread Of Communism After World War II, Australia After 1945, SOSE: History Year 9, TAS | Online Education Home Schooling Skwirk Australia'. *Skwirk.Com*. http://www.skwirk.com/p-c_s-56_u-490_t-1333_c-5124/the-fear-of-communism-in-australia/tas/the-fear-of-communism-in-australia/australia-after-1945/the-spread-of-communism-after-world-war-ii.

Vancouver style

The Vancouver system is mainly used in medical and scientific papers.

1. Nominal Scale

Nominal Scale, also called the categorical variable scale, is defined as a scale used for labeling variables into distinct classifications and doesn't involve a quantitative value or order. This scale is the simplest of the four variable measurement scales. Calculations done on these variables will be futile as there is no numerical value of the options.

For example, a customer survey asking "Which brand of smartphone do you prefer?"

Options: Apple – 1, Samsung – 2, OnePlus – 3.

1. Coding research participants into qualitative variables as male and female represents (**UGC NET 15 Mar 2023**)

- The Thurstone scale
- The differential scale
- The Likert scale
- The nominal scale

Check

Question: 1 of 1 questions

2. Ordinal Scale

Ordinal Scale is defined as a variable measurement scale used to simply depicting the order of variables and not the difference between each of the variables. These scales are generally used to depict non-mathematical ideas such as frequency, satisfaction, happiness, a degree of pain, etc. It is quite straightforward to remember the implementation of this scale as 'Ordinal' sounds similar to 'Order', which is exactly the purpose of this scale.

For example, a customer survey asking "How satisfied are you with our services?"

Options: Very Unsatisfied – 1, Unsatisfied – 2, Neutral – 3, Satisfied – 4, Very Satisfied – 5

1. In which of the scales of measurement, the properties of classification and order, both are present? (**UGC NET 2020 Morning paper**)

- Ratio
- Interval
- Ordinal
- Nominal

Check

Question: 1 of 1 questions

3. Interval Scale

The scale of measurement for a variable is an *interval scale* if the data have all the properties of ordinal data and the interval between values is expressed in terms of a fixed unit of measurement. Interval data are always numeric. Scholastic Aptitude Test (SAT) scores are an example of interval-scaled data.

For example, three students with SAT scores of 620, 550, and 470 can be ranked or ordered in terms of best performance to poorest performance. In addition, the differences between the scores are meaningful. For instance, student 1 scored $620 - 550 = 70$ points more than student 2, while student 2 scored $550 - 470 = 80$ points more than student 3.

1. In which scale of measurement, classification, order and equality of units are ensured? (**UGC NET 17 Oct 2020 paper**)

- Ratio
- Nominal
- Interval
- Ordinal

Check

Question: 1 of 1 questions

4. Ratio Scale

The scale of measurement for a variable is a *ratio scale* if the data have all the properties of interval data and the ratio of two values is meaningful. Variables such as distance, height, weight, and time use the ratio scale of measurement. This scale requires that a zero value be included to indicate that nothing exists for the variable at the zero point.

For example, a customer survey asking "What is your weight in kilograms?"

Options: Less than 50 kilograms, 51 – 70 kilograms, 71 – 90 kilograms, 91 – 110 kilograms, More than 110 kilograms.

1. A true zero point is the feature of: (**UGC NET 08 Oct 2022 Evening**)

- Ordinal scale
- Ratio scale
- Interval scale
- Nominal scale

Check

Question: 1 of 1 questions

1. Background

The process of making inferences about a large group of elements by studying only a portion of it is known as **sampling**. We encounter sampling in our daily lives, such as when we buy groceries. For instance, we might select a few grains of rice or wheat to assess the overall quality of an entire bag.

Population encompasses all the elements for which we want to draw conclusions. For instance, if we're discussing fluorescent tubes, the population would consist of all the tubes manufactured by a company.

Sample is a subset of the population that we choose to analyze to make inferences about the entire population. To illustrate, if we're studying fluorescent tubes, our sample might include 15 randomly selected tubes.

A **parameter** is any characteristic or feature of a population. For instance, the average lifespan of all the fluorescent tubes manufactured by a company is a population parameter.

A **statistic**, on the other hand, is any characteristic of a sample. For example, the mean lifespan of the 15 tubes in our sample is a sample statistic.

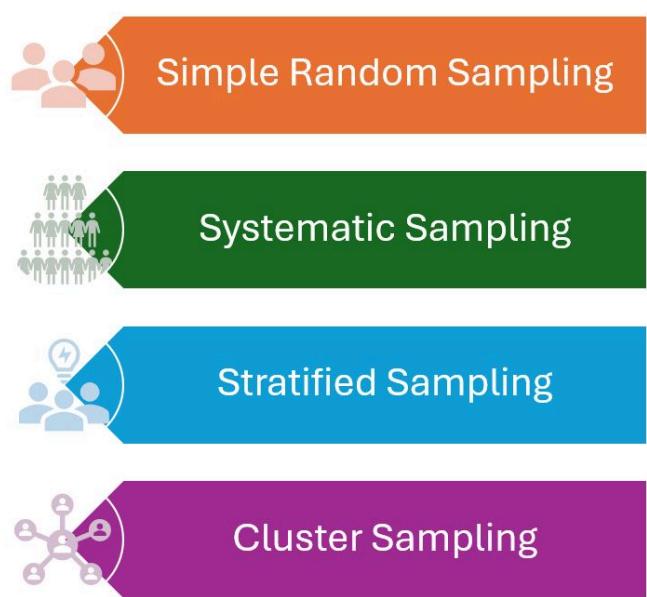
Traditionally, population parameters are represented using Greek or capital letters, while sample statistics are denoted using lowercase Roman letters.

The process of examining each individual in the population instead of making inferences from a sample is known as a **census**.

There are two methods of sampling depending on who or what is allowed to govern the selection of the sample. (a) Probability sampling and (b) Non-probability sampling.

2. Probability Sampling

Types of Probability Sampling



Various types of probability sampling methods involve random selection, where each element in the population has a known and non-zero chance of being included in the sample. These methods aim to provide unbiased representations of the population.

Let's explain and provide an example for each type:

1. Simple Random Sampling

Simple random sampling is a method where every individual in the population has an equal probability of being chosen for the sample. This is achieved by selecting participants purely by chance, without any bias or specific criteria.

Example: A researcher interested in the opinions of college students about a new campus policy could assign each student in the college a unique number and use a random number generator to select a fixed number of students to participate in the survey.

2. Systematic Sampling

Systematic sampling involves selecting every k th element from the population, where k is a constant interval known as the sampling ratio. The starting point is randomly chosen, and then every k th element is included in the sample until the desired sample size is reached.

Example: In a population of 1000 students, a researcher wants a sample of 100. The sampling ratio is $1000/100 = 10$. The researcher could randomly select a number between 1 and 10 as the starting point and then include every 10th student in the sample.

3. Stratified Sampling

Stratified sampling divides the population into distinct subgroups or strata based on certain characteristics. Then, a random sampling method, like simple random sampling, is applied independently within each stratum. This ensures representation from different strata in the final sample.

Example: A company wants to assess employee satisfaction in different departments (e.g., IT, HR, Marketing). They divide all employees into strata based on their department and then randomly select a sample from each department to ensure representation from all areas.

4. Cluster Sampling

Cluster sampling involves dividing the population into clusters or groups, and then randomly selecting entire clusters as the sampling units. Unlike stratified sampling, where individual members are selected, cluster sampling focuses on selecting entire groups. The Clusters from which, the sample is drawn randomly are heterogenous in nature.

Example: A health researcher wants to study the prevalence of a disease in a large city. They divide the city into several neighborhoods, randomly select a few neighborhoods, and then include all individuals within the selected neighborhoods in the study.

1. When a researcher divides the entire population in sections, it is called as (**UGC NET 03 Mar 2023 Evening**)

- Systematic sampling
- Cluster sampling
- Convenience sampling
- Stratified sampling

Check

Question: 1 of 3 questions

3. Non- Probability Sampling

Types of Non - Probability Sampling



Various types of non-probability sampling methods are used when it is not feasible to ensure a non-zero probability of inclusion for each element in the population. These methods may introduce bias in the study as the samples are selected based on judgment, convenience, or specific needs.

Let's explain each type and provide an example for better understanding:

1. Convenience Sampling

Convenience sampling involves selecting the sample based on what is most convenient for the researcher or interviewer. The researcher might choose participants who are easily accessible or readily available. This method is quick and easy to implement but can lead to a biased sample.

Example: A researcher studying the demand for non-aerated beverages might conduct interviews with shoppers in a few retail shops located nearby for convenience.

2. Purposive Sampling

Purposive sampling is used when the researcher has a specific purpose or target group in mind. The selection of participants is done intentionally to serve that particular need. It is non-representative and focuses on a specialized subset of the population.

Example: A researcher interested in studying the behavior of high-level business executives might specifically target and interview CEOs and top-level managers from various companies.

3. Snowball (Opportunity) Sampling

Snowball sampling is a method used when it is difficult to identify and reach members of a certain population. The researcher starts with a small number of participants and then asks them to refer others who fit the criteria. This process continues, like a snowball accumulating more snow, until the desired sample size is achieved.

Example: A researcher investigating drug users in a community might identify one willing participant who can refer other drug users in the same community, forming a snowball sample.

4. Judgment Sampling

In judgment sampling, the sample is selected based on the judgment or opinion of experts or experienced individuals. These experts identify participants they believe are representative of the population or possess the desired characteristics.

Example: A TV researcher seeking quick opinions about a political announcement might approach a diverse group of people on the street, based on their judgment, to get a cross-section of views.

5. Quota Sampling

Quota sampling involves dividing the population into subgroups based on specific characteristics and then setting a quota for each subgroup. The researcher then selects participants from each subgroup until the quota is filled. This method ensures representation of different subgroups but may not be fully representative of the entire population.

Example: A researcher interested in studying attitudes towards the death penalty in a city might set a quota to include a specific percentage of people from different religious backgrounds.

6. Dimensional Sampling

Dimensional sampling is an extension of quota sampling, where the researcher considers multiple characteristics such as gender, age, income, residence, and education. The aim is to ensure representation from each category or dimension of interest.

Example: A researcher conducting a survey about consumer preferences might ensure that they interview a specific number of participants from different age groups, income levels, and educational backgrounds to capture a diverse perspective.

1. A major advantage of snowball sampling method is that it helps the research to focus only on **(UGC NET 13 Morning)**

- people of particular interest
- long standing residents
- people in an area
- migrants

Check

Question: 1 of 2 questions

1. Background

Hypothesis testing is a crucial and foundational concept in the realm of statistics and scientific research. It serves as a systematic method for evaluating the validity of various claims or hypotheses that researchers put forth. Whether in the fields of medicine, social sciences, business, or countless others, hypothesis testing provides a structured framework for drawing meaningful conclusions based on empirical evidence.

At the heart of hypothesis testing lies the quest for evidence. Researchers formulate hypotheses that reflect their beliefs, questions, or proposed explanations about a particular phenomenon or relationship. These hypotheses are subjected to rigorous scrutiny through statistical analysis.

Hypothesis testing helps answer critical questions:

- Does a new drug outperform an existing treatment?
- Is a new teaching method more effective in improving student performance compared to the traditional method?
- Does a change in website design lead to a higher conversion rate for online sales?
- Is there a difference in customer satisfaction scores between two customer service teams?
- Has a training program led to a statistically significant improvement in employee productivity?
- Is there evidence to suggest that a new manufacturing process reduces defects in a production line?
- Has a marketing strategy led to increased sales?

By providing a structured approach to assess the strength of evidence, hypothesis testing guides researchers in making objective and data-driven decisions.

When an estimate from a **sample** is used to test some belief or claim or assertion, theory, or **hypothesis** about the **population**, the process is known as **hypothesis testing** (Significance Testing).

1. A hypothesis is a (**UGC NET Jun 2016**)

law

canon

postulate

supposition

Check

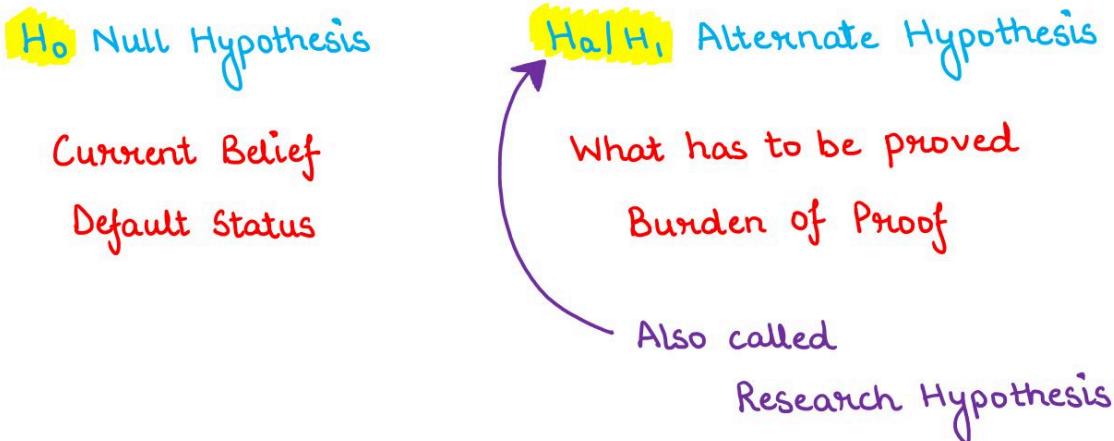
Question: 1 of 1 questions

2. Null and Alternate Hypothesis

In hypothesis testing, we begin by making a tentative assumption about a population parameter. This tentative assumption is called the **null hypothesis** and is denoted by (H_0). We then define another hypothesis, called the **alternative hypothesis**, which is the opposite of what is stated in the null hypothesis. The alternative hypothesis is denoted by (H_a) or (H_1).

Thus, the Hypothesis testing uses sample data to determine whether a statement about the value of a population parameter (a) should be rejected or (b) should not be rejected.

In some situations, it is easier to identify the alternative hypothesis first and then develop the null hypothesis. In other situations, it is easier to identify the null hypothesis first and then develop the alternative hypothesis.



Use Alternative Hypothesis as a Research Hypothesis

Sometimes, the research hypothesis is stated as the alternative hypothesis. For example, a new teaching method is developed that is believed to be better than the current method. The alternative hypothesis is that the new method is better. The null hypothesis is that the new method is no better than the old method.

A new sales force bonus plan is developed in an attempt to increase sales. The alternative hypothesis is that the new bonus plan increases sales. The null hypothesis is that the new bonus plan does not increase sales.

A new drug is developed with the goal of lowering blood pressure more than an existing drug. The alternative hypothesis is that the new drug lowers blood pressure more than the existing drug. The null hypothesis is that the new drug does not provide lower blood pressure than the existing drug.

Null Hypothesis as an Assumption to be Challenged

Not all hypothesis tests involve research hypotheses. Sometimes, we use a hypothesis test to challenge the assumption and determine if there is statistical evidence to conclude that the assumption is incorrect. In these situations, it is helpful to develop the null hypothesis first. The null hypothesis expresses the belief or assumption about the value of the population parameter. The alternative hypothesis is that the belief or assumption is incorrect.

1. Hypothesis, that is alternative to null hypothesis, is represented as: (UGC NET 29 Oct 2022 Morning)

H₀

H

H₁

H_{alt}

Check

Question: 1 of 1 questions

3. Steps of Hypothesis Testing

Hypothesis testing is a statistical method used in research to make inferences or draw conclusions about a population based on a sample of data. It involves the following key steps:

1. **Formulate Hypotheses:** First we formulate research and null hypothesis.

- *Null Hypothesis (H₀)*: This is the default or status quo hypothesis. It typically states that there is no effect, no difference, or no relationship in the population.
- *Alternative Hypothesis (H_a)*: This is the hypothesis that researchers aim to support. It asserts a specific effect, difference, or relationship in the population.

2. **Collect Data:** Gather data through experiments, surveys, observations, or other methods.

3. **Select a Significance Level (α):** This is the predetermined threshold that defines how unlikely the observed results must be for the null hypothesis to be rejected. Common significance levels include 0.05 (5%) and 0.01 (1%).

4. **Conduct a Statistical Test:** Choose an appropriate statistical test based on the type of data and research question. The choice of test (e.g., t-test, chi-square test, ANOVA, etc.) depends on factors such as data distribution, sample size, and the type of comparison being made.

5. **Calculate a Test Statistic:** Compute a test statistic that summarizes the relationship between the sample data and the null hypothesis.

6. **Determine the P-Value:** The p-value is the probability of obtaining results as extreme as, or more extreme than, the observed results, assuming the null hypothesis is true. A smaller p-value suggests stronger evidence against the null hypothesis.

7. **Compare P-Value to Significance Level:** If the p-value is less than or equal to the chosen significance level (α), you reject the null hypothesis. If the p-value is greater than α , you fail to reject the null hypothesis.

8. **Draw a Conclusion:** Based on the comparison, you either conclude that there is enough evidence to reject the null hypothesis in favor of the alternative hypothesis or that there is insufficient evidence to do so.

9. **Interpret the Results:** Explain the practical implications of your findings and whether they support or refute your research hypothesis.

4. Type I and Type II Errors

Ideally the hypothesis testing procedure should lead to the acceptance of H_0 when H_0 is true and the rejection of H_0 when H_a is true. Unfortunately, the correct conclusions are not always possible.

The diagram is a 2x2 grid. The columns are labeled "What actually is" with "H₀ True" and "H₀ False". The rows are labeled "What I did" with "Accept H₀" and "Reject H₀". Handwritten annotations include:

- Type I = False Alarm** (next to "Accept H₀")
- Type II = Missed opportunity** (next to "Reject H₀")
- What actually is** (written above the grid)
- Accept H₀** (written above the first row)
- Reject H₀** (written below the second row)
- What I did** (written to the left of the first column)
- 1 - α = confidence coefficient** (in the top-left cell)
- X Type II** (in the top-right cell)
- β** (in the bottom-right cell)
- 1 - β = power of test** (in the bottom-left cell)
- X Type I** (in the bottom-left cell)
- α = Level of significance** (in the bottom-left cell)

The first row of the figure shows what can happen if the conclusion is to accept Null Hypothesis.

If H_0 is true, this conclusion is correct. However, if H_a is true, we make a **Type II error**; that is, we accept H_0 when it is false.

The second row of the figure shows what can happen if the conclusion is to reject H_0 . If H_0 is true, we make a **Type I error**; that is, we reject H_0 when it is true. However, if H_a is true, rejecting H_0 is correct.

The probability of making a Type I error, when the null hypothesis is true as an equality is called the **level of significance**. The Greek symbol α (alpha) is used to denote the level of significance, and common choices for α are 0.05 and 0.01. In practice, the person responsible for the hypothesis test specifies the level of significance. By selecting α , that person is controlling the probability of making a Type I error. If the cost of making a Type I error is high, small values of α are preferred. If the cost of making a Type I error is not too high, larger values of α are typically used. Applications of hypothesis testing that only control for the Type I error are called **significance tests**.

The probability of making a Type II error is denoted by beta, β .

Thus, we conclude that:

- A Type I error (α) is the probability of rejecting a true null hypothesis.
- A Type II error (β) is the probability of failing to reject a false null hypothesis.

Or simply:

- A Type I error (α) is the probability of telling you things are wrong, given that things are correct.
- A Type II error (β) is the probability of telling you things are correct, given that things are wrong.

Although most applications of hypothesis testing control for the probability of making a Type I error, they do not always control for the probability of making a Type II error. Hence, if we decide to *accept H₀*, we cannot determine how confident we can be with that decision. Because of the uncertainty associated with making a Type II error when conducting significance tests, statisticians usually recommend that we use the statement "*do not reject H₀*" instead of "*accept H₀*".

If you wish to reduce the level of Type I error, then reduce the significance level to a very low level, perhaps to $\alpha = 0.01$, or even to $\alpha = 0.001$. Remember though that, this implies a higher level of Type II error. Since the negative consequences of Type I error are not so negative, then it is preferable to provide a better balance of Types I and II error by adopting a significance level such as 0.05 or 0.10.

Power of test = $1 - \beta$

Type I errors are also called:

- Producer's risk
- False alarm
- False negative
- α error

Type II errors are also called:

- Consumer's risk
- Mis-detection
- False positive
- β error

1. Given below are two statements: **(UGC NET 22 Mar 2023 Morning)**

Statement I: If we accept a hypothesis when it should be rejected, we say type I error has been made.

Statement II: If we reject a hypothesis when it should be accepted, we say type II error has been made.

Both Statement I and Statement II are true.

Both Statement I and Statement II are false.

Statement I is true but Statement II is false.

Statement I is false but Statement II is true.

Check

Question: 1 of 1 questions

1. Teaching Concept

The term "teaching" finds its roots in the ancient English word "tæcan," which denoted the actions of "displaying" or "indicating." At its core, teaching involves the vital process of imparting knowledge and delivering guidance on how to execute specific tasks. However, the essence of teaching surpasses mere information transmission, as it encompasses a broad spectrum of elements like values, manners, competencies, behaviors, traditions, and narratives.



In essence, teaching can be defined as the art of skillfully communicating ideas, emotions, and skills to those in the process of learning, whether they are students or pupils. Teachers place great emphasis on the educational journeys of their learners and strive to create environments that foster effective learning experiences.

The act of teaching goes beyond the simple act of instructing or lecturing. Effective teaching involves understanding the unique needs and backgrounds of students and tailoring the learning process accordingly. It requires the ability to inspire and engage, making the educational journey an exciting and transformative experience.

Teachers serve as both guides and mentors, helping learners navigate the complex landscape of knowledge and values. They play a pivotal role in shaping the future of society by molding the minds of the next generation. In this way, teaching is not just a profession; it is a noble calling that impacts the world in profound ways.

Thus, teaching is an art of communication, requiring not only knowledge but also the ability to convey it effectively. It's about fostering a deep understanding of the subject matter and instilling a sense of curiosity and critical thinking in students. Great teachers can ignite a passion for learning that can last a lifetime.

1. Which of the following is the major objective of education? (**UGC NET 11 July 2022 Morning**)

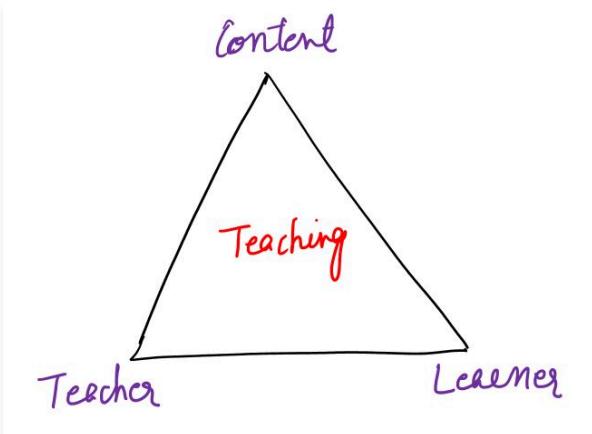
- Developing economy
- Making students disciplined
- Developing inherent abilities/ powers of students
- Making students followers of teachers

Check

Question: 1 of 2 questions

2. Characteristics of Teaching

Teaching is triadic as it involves three fundamental elements: the teacher, the learner, and the content being taught. It recognizes the dynamic interaction between these components. The teacher facilitates learning by guiding and presenting the content, the learner actively engages with and processes the information, and the content serves as the subject matter or material being conveyed. This triadic nature acknowledges the interconnected relationship and mutual influence among all three elements in the learning process.



Fill in the missing words

Teaching involves three fundamental elements; the teacher, the learner and _____.

Check

Following are some of the characteristic features of teaching:

1. Teaching is fundamentally about guiding and facilitating the learning process.
2. It involves organized and structured presentation of information and concepts.
3. Teaching is a form of communication, with the goal of transferring knowledge and skills from the teacher to the learner.
4. Effective teaching adapts to the needs and abilities of the learners, accommodating different learning styles and levels of understanding.
5. Teaching often includes the assessment of student learning to gauge progress and make necessary adjustments.
6. Teaching seeks to motivate and engage students in the learning process, sparking their interest and curiosity.
7. Different instructional strategies and methods are employed in teaching to cater to various learning objectives.
8. Teaching involves a feedback loop, where students receive feedback on their performance and use it to improve.
9. Teaching is usually contextual, taking into account the specific subject matter, grade level, and educational setting.
10. Teaching is driven by specific educational objectives and goals that students are expected to achieve.
11. Teaching is a process that educators continually refine and improve to enhance student learning outcomes.
12. *Formal teaching* occurs in classroom settings and is facilitated by licensed professionals. *Informal teaching* happens outside the confines of traditional classrooms and does not require licensing, such as home-based or extracurricular tutorials.
13. Teaching is both a science, with pedagogical theories and evidence-based practices, and an art, with room for creativity and personalization.
14. Teaching is dynamic, adapting to changes in education, technology, and the needs of learners over time.

Examine the given examples and distinguish whether they represent formal or informal teaching.



A certified teacher instructs a group of students in a school classroom, following a set curriculum and using textbooks.

I got it wrong

Answer

Next Question

Round 1

Cards left: 5

3. Objectives of Teaching

The objectives of teaching encompass a range of aims and purposes dedicated to facilitating effective and meaningful learning experiences for students. These objectives include:

- (i) cultivating a passion for learning among students.
- (ii) fostering students' creativity, independence, and critical thinking skills.
- (iii) utilizing various teaching tools and strategies to engage learners of all types, equipping them to become proficient students in the future.
- (iv) imparting knowledge and skills to learners, preparing them to adapt to the rapidly changing world.
- (v) instilling values, morals, punctuality, and discipline in students.
- (vi) nurturing students and boosting their confidence throughout their learning journey.
- (vii) fostering a sense of solidarity, brotherhood, communal unity, teamwork, leadership, etc., in learners through classroom activities.
- (viii) preparing students to become responsible and active citizens in the future.

In other words, the ultimate aim of teaching is the holistic development of students.

1. Teaching is a personal act to facilitate self-development.

True

False

Check

Question: 1 of 11 questions

4. Process of Teaching

The process of Teaching can be broken down into 3 distinct phases:



- > (i) The Planning Phase
- > (ii) The Execution Phase
- > (iii) The Reflection Phase

These phases are also commonly referred to as the pre-active, interactive, and post-active phases in the teaching process. Each phase is integral to effective teaching, ensuring that educators plan thoroughly, engage students dynamically, and continuously refine their methods to enhance the learning experience.

Identify the teaching phase for each given scenario.

1. A history teacher spends time researching and designing a lesson plan on World War II, outlining key events, p sources, and discussion questions.

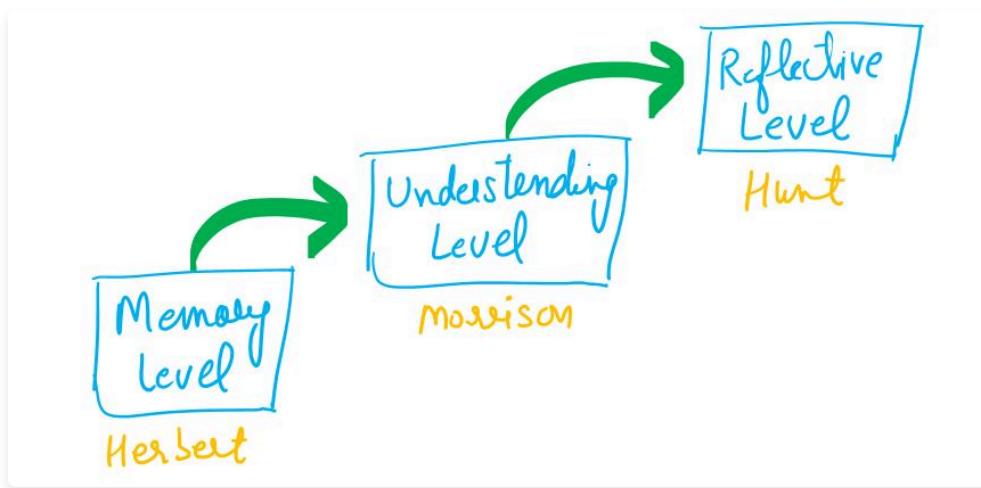
- Planning Phase
- Execution Phase
- Reflection Phase

Check

Question: 1 of 5 questions

5. Levels of Teaching

Teaching and learning can happen in different ways, from simple to complex. In teaching, there's a connection between an experienced teacher and a less experienced student. Teaching is when a teacher helps a student learn new things. Teaching and learning go hand in hand. The main goal of teaching and learning is to help the student develop in all aspects.



There are following 3 identifiable levels of teaching and learning activities.

1. Memory Level of Teaching (Herbert's Teaching Model)
2. Understanding Level of Teaching (Morrison's Teaching Model)
3. Reflective Level of Teaching (Hunt's Teaching Model)

Arrange the following levels of teaching in ascending order.

Reflective Level

Understanding Level

Memory Level

Check

Let us discuss them one by one.

5. Levels of Teaching

The first level of teaching is Memory Level of Teaching. It is also called thoughtless teaching. Johann F. Herbart, a German philosopher and founder of pedagogy as an academic discipline, was the exponent of Model of Memory-Level Teaching.

Herbart's method consists of 5 discrete steps: preparation, presentation, association, generalization, and application.

1. *Preparation:* To ready the students for new content.
2. *Presentation:* To introduce the new material in a clear and engaging manner.
3. *Association:* To connect new information with what students already know.
4. *Generalization:* To help students understand the broader principles and concepts derived from the specific content.
5. *Application:* To enable students to apply what they have learned to new situations.

At Memory Level of Teaching, the focus is on memorisation. It is usually used in lower classes. The instructional arrangement is such that the learner is helped in cramming the content presented to him. Here, the teaching-learning process is mainly a Stimulus-Response (S-R).

In this level, the teacher presents factual information before the learner. The learner tries to cram and mugg up these facts with the least involvement of his thinking and reasoning power without any care of the understanding of their meaning and application. The learners is supposed to retain the information as long as possible and to reproduce (recall or recognize) it when needed. The whole efforts in such teaching act then revolve around the acquisition of the factual information or knowledge through rote learning.

For example, in a history class, the teacher provides a list of important dates and events for students to memorize. The students are expected to recall and reproduce this factual information during exams without necessarily understanding the historical context or significance behind them.

1. In which level of teaching, the main focus is laid on capturing and systematic presentation of ideas and information? (NET 20 Nov Morning 2021)

- Memory level
- Understanding level
- Reflective level
- Autonomous development level

Check

Question: 1 of 5 questions

5. Levels of Teaching

The main proponent of Understanding Level of Teaching is H. C. Morrison. The teaching at the Understanding Level is of higher quality as compared to the teaching at Memory Level. It is more useful and thoughtful as it focuses on the mastery of the subject. Teaching at this level is done to develop intellectual behaviour. Learners become more capable to think and present the facts in good manners. They also analyse the facts properly and draw inferences.

Teaching-learning at the Understanding level emphasises seeing solitary facts in relation to general principles. It involves exploration, presentation, assimilation, organisation and recitation through oral presentation or in the form of written paper.

This type of teaching-learning can be carried out with the students in upper primary, middle and higher classes.

For example, in a science class, the teacher presents a complex scientific concept, such as the laws of motion, and engages students in activities and discussions to ensure their comprehension. The students explore real-life examples, conduct experiments, and explain the principles behind the laws of motion.

1. In which level of teaching, the learner gets an opportunity to discriminate at length between positive and negative exemplars of concepts? (**UGC NET 24 Sept 2020 Morning**)

- Memory Level
- Understanding Level
- Reflective Level
- Autonomous Development level

Check

Question: 1 of 4 questions

5. Levels of Teaching

Reflective Level of Teaching is also known as "introspective Level of Teaching" or "exploratory understanding". Hunt is the main proponent of Reflective Level of Teaching. It is the highest and the most practical level of teaching. This level basically involves the use of scientific methods to understand the problems.

The Reflective Level of Teaching is highly thoughtful and useful. A learner can achieve this level only after Memory Level and Understanding Level. Students at this level, develop curiosity, interest, inquiry and persistence which culminates in a scientifically determined conclusion or solution of a problem.

Teaching-learning at Reflective Level involves careful and critical examination of an idea or problem through the 'Problem-Solving Approach'. It is only possible at the high school level as older learners usually develop certain habits and abilities that were not strong in earlier years.

For example, in a philosophy class, the teacher presents a philosophical problem or dilemma and encourages students to critically analyze and reflect upon different perspectives. The students engage in discussions, research, and formulate their own arguments and conclusions about the issue, applying problem-solving and critical thinking skills.

1. Which level of teaching uses higher level of cognitive abilities as specified in Bloom's taxonomy? (**UGC NET 4 Evening**)

- Memory level
- Understanding level
- Reflective level
- Autonomous development level

Check

Question: 1 of 5 questions

5. Levels of Teaching

A comparison of levels of teaching is given in below table.

| | Memory Level | Understanding Level | Reflective Level |
|----------------------|--|---|--|
| Modes of Operation | Least Thoughtful | Moderate Thoughtful | Most Thoughtful |
| Objective | Acquire knowledge of the facts and information | Acquire knowledge with full understanding | Understanding of acquired knowledge with increased ability to reflect and discover new insights leading to independent problem solving |
| Role of Teacher | Dominant and authoritarian; telling without caring for understanding | Dominant and authoritarian; providing knowledge with full understanding | Democratic and cooperative; helping pupils in reflecting thinking and problem solving |
| Nature of Motivation | Extrinsic | Extrinsic | Intrinsic |
| Orientation | Teacher centered leading to rote learning | Teacher centered as well as subject centered leading to meaningful learning | Learner centered and problem centred |
| Evaluation Method | Oral and written, use of objective, specially recall and recognition type questions for testing memorization power | Oral, written and practical, use of objective and short answer type for testing knowledge and understanding objective | Oral, written and practical; essay type or open-ended questions for testing originality, creativity and problem-solving abilities |

1. Match List I with List II: (UGC NET 21 Nov Morning 2021)

List I (Levels of teaching and learning)

- a. Autonomous development level
- b. Memory level
- c. Understanding level
- d. Reflective level

List II (Main feature)

- i. It is problem-centred and requires on the part of learners more active participation. more imagination and creativity.
- ii. Lays stress on the importance of students' feelings and minimizes the value of hard thinking.
- iii. It is comparatively thoughtless.
- iv. It emphasizes on seeing of relationships between principles and solitary facts.

a- i, b- ii, c- iii, d- iv

a- iii, b- iv, c- i, d- ii

a- ii, b- iii, c- iv, d- i

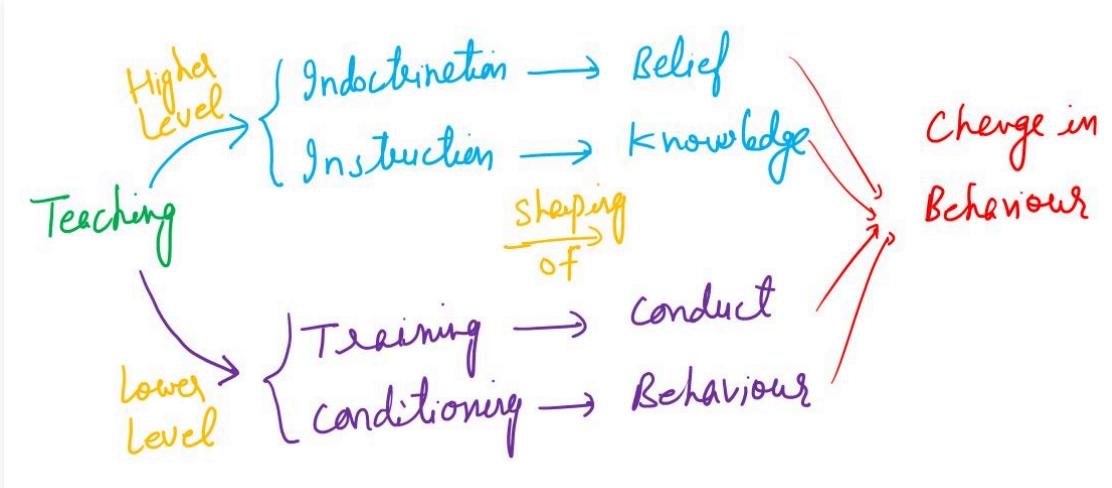
a- iv, b- i, c- ii, d- iii

Check

Question: 1 of 6 questions

6. Teaching and Related Concepts

Teaching has 4 modes of behaviour. It means that teaching is a continuum for developing behaviour to the formation of beliefs. Thus, teaching is a continuum from conditioning to indoctrination.



The 4 modalities of teaching are:

- > **Conditioning**
- > **Training**
- > **Instruction**
- > **Indoctrination**

Teaching is a larger concept and each of these terms is a part or aspect of this large concept.

1. Which of the following set of statements reflects the basic characteristics of teaching? (**UGC NET Aug 2016**)

- i. Teaching is the same as training.
- ii. There is no difference between instruction and conditioning when we teach.
- iii. Teaching is related to learning.
- iv. Teaching is a 'task' word while learning is an 'achievement' word.
- v. Teaching means giving information.
- vi. One may teach without learning taking place.

- i, ii and iii
- iii, iv and vi
- ii, iii and v
- i, iv and vi

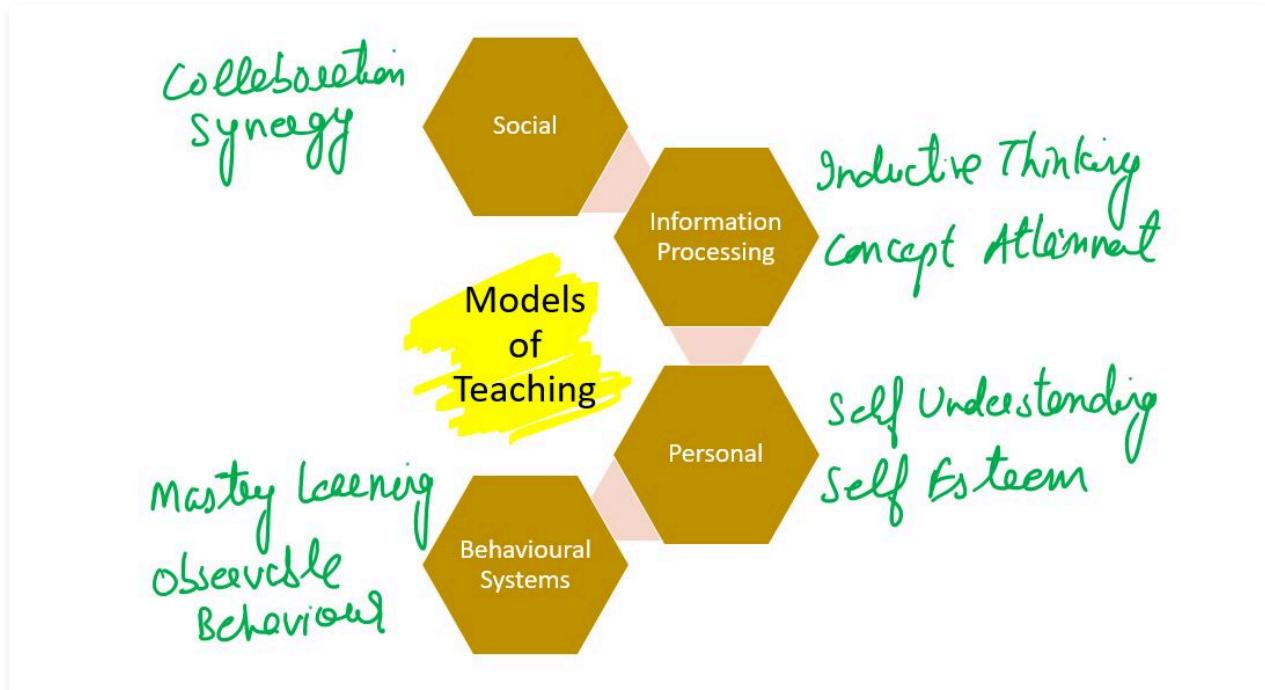
Check

Question: 1 of 5 questions

7. Models of Teaching

Models of teaching deal with a rich variety of approaches to the problem of teaching. They are intended to help teachers to provide meaningful effective learning situations. It provides guidelines what to teach, how to teach and what actions to take while teaching. A model of teaching contains steps and procedures to generate desired outcome in learning.

Good teaching models come from studying how students learn for a long time. There are four main groups of these models, and each focuses on different parts of learning. But they all aim to help students become better at teaching themselves and building their own knowledge.



Teaching models can be grouped into 4 categories:

- > **1. Social Models**
- > **2. Information processing Models**
- > **3. Personal Models**
- > **4. Behavioral Systems Models**

Let us discuss these models one by one.

Identify these statements which relate to the characteristics of a teaching act.

- (a) Teaching is a personal act to facilitate self-development.
- (b) The goal of all teaching is to cause learning.
- (c) Teaching invariably implies changing the opinion of others.
- (d) Teaching is triadic rather than dyadic in nature.
- (e) Teaching means selling ideas.
- (f) Teaching means reaching the mind of students.

(c), (d) and (e)

(a), (b) and (c)

(b), (d) and (f)

(f), (e) and (d)

Check

7. Models of Teaching

The social models of teaching, designed to create synergy through collective energy, focus on fostering social efficiency. Specifically, teaching models like the social family or those oriented toward social interaction aim to enhance social effectiveness among individuals.

| Social Models | |
|--|---|
| Models | Developers |
| Partners in learning <ul style="list-style-type: none">• Positive interdependence• Structured Inquiry | <ul style="list-style-type: none">• David Johnson• Roger Johnson• Margrita Calderon• Elizabeth Cohen• Robert Slavin |
| Group Investigation | <ul style="list-style-type: none">• John Dewey• Herbert Thelan |
| Role playing | <ul style="list-style-type: none">• Fannie Shafel |
| Jurisprudential Inquiry | <ul style="list-style-type: none">• Donald Oliver• James Shaver |

Social Models of Teaching are explained below.

- > **1. Partners in learning**
- > **2. Group Investigation**
- > **3. Role Playing**
- > **4. Jurisprudential Inquiry**

1. Match List I with List II: (UGC NET 05 Jan 2022 Evening)

List I (Model of Teaching)

- a. Positive Interdependence
- b. Structured inquiry
- c. Role playing
- d. Jurisprudential inquiry

List II (Developer)

- i. Fannie Shafel
- ii. David Johnson
- iii. Donald Oliver and James Shaver
- iv. Robert Slavin

- a- iii, b- ii, c- iv, d- i
- a- ii, b- iv, c- iii, d- i
- a- iv, b- i, c- iii, d- ii
- a- i, b- iii, c- ii, d- iv

Check

Question: 1 of 4 questions

7. Models of Teaching

Information processing models highlight methods that enhance an individual's natural inclination to comprehend the world. This involves acquiring and organizing data, identifying problems and devising solutions, and developing concepts and language to communicate effectively. Models within the information processing family are particularly useful for handling information. These models prioritize intellectual growth.

| Information Processing Models | |
|---|--|
| Models | Developers |
| Inductive thinking (classification-oriented) | <ul style="list-style-type: none">• Hilda Taba |
| Concept attainment | <ul style="list-style-type: none">• Jerome Bruner |
| Mnemonics (memory assists) | <ul style="list-style-type: none">• Michael Pressley• Joel Levin• Richard Anderson |
| Advance Organizers | <ul style="list-style-type: none">• David Ausubel |
| Scientific Inquiry | <ul style="list-style-type: none">• Joseph Schwab |
| Inquiry Training | <ul style="list-style-type: none">• Richard Suchman |
| Synectics | <ul style="list-style-type: none">• Bill Gordon |

Information Processing Models are explained below.

- > **1. Inductive Thinking**
- > **2. Concept Attainment**
- > **3. Mnemonics**
- > **4. Advanced Organizers**
- > **5. Scientific Inquiry**
- > **6. Inquiry Training**
- > **7. Synectics**

1. Given below are two statements: (UGC NET 29 Nov 2021)

Statement I: The advance organiser model is designed to strengthen students' cognitive structures - their knowledge of particular subject at any given time and how well organised, clear and stable that knowledge is.

Statement II: Cognitive structure has nothing to do with what kind of knowledge of a field is in our minds, how much there is, and how well it is organised.

- Both Statement I and Statement II are correct.
- Both Statement I and Statement II are incorrect.
- Statement I is correct but Statement II is incorrect.
- Statement I is incorrect but Statement II is correct

 Check

Question: 1 of 3 questions

7. Models of Teaching

Personal models of teaching start by focusing on an individual's sense of self. They aim to structure education in a way that fosters a deeper understanding of ourselves, encourages personal responsibility for our learning, and pushes us to surpass our current level of development.

| Personal Models | |
|------------------------|------------------|
| Models | Developers |
| Non-directive teaching | • Carl Rogers |
| Enhancing Self-esteem | • Abraham Maslow |

Personal Models of teaching are explained below.

1. Non-directive Teaching

Non-directive Teaching, is a teaching model where the teacher assumes a counselor-like role. This model emphasizes fostering a partnership between students and teachers. In this method, the teacher guides students in learning how to take control of their own education.

For example, in a literature class, students independently set goals for understanding a novel's themes, with the teacher providing guidance and feedback.

2. Enhancing self-esteem

The "Enhancing Self-esteem" model of teaching emphasis to create programs aimed at boosting individuals' self-perception and unlocking their full potential. This model underscores the harmony between personal, social, and academic goals in education, playing a pivotal role in meeting students' needs for self-esteem, self-awareness, and the encouragement and respect of their peers. Its significance lies in assisting students in developing a positive self-image.

For example, in a classroom with individual projects, students set personal goals, receive constructive feedback, and appreciate each other's contributions, contributing to a collaborative and affirming atmosphere that enhances overall self-esteem.

1. A teacher assumes a counselor-like role, guiding students to take control of their own education. How does the directive teaching model contribute to students' intellectual development?

- By enforcing strict academic rules
- By fostering a collaborative partnership
- By promoting rote memorization
- By minimizing student independence

Check

Question: 1 of 3 questions

7. Models of Teaching

Teaching models in this family focus on achieving self-control, reducing mental strain, developing leadership qualities, and effectively facing challenges. These models are rooted in a common theory known as social learning theory, alongside behavior modification, behavior therapy, and cybernetics. The underlying belief is that humans function as self-adjusting communication systems, modifying their behavior based on information about task accomplishment.

For example, consider a person climbing an unfamiliar staircase in the dark. Initially, their steps are cautious, adjusting as they receive feedback. If they miss a step, they adjust based on the feedback of encountering air. If a step is too low, they adjust upon hitting the riser. Over time, behavior adapts based on this feedback until climbing the stairs becomes more comfortable.

| Behavioral Models | |
|---|--|
| Models | Developers |
| Mastery Learning | <ul style="list-style-type: none">• Benjamin Bloom• James Block |
| Direct Instruction | <ul style="list-style-type: none">• Tom Good• Jere Brophy• Carl Gereiter• Ziggy Engleman• Wes Becker |
| Simulation | <ul style="list-style-type: none">• Carl Smith• Mary Smith |
| Social Learning | <ul style="list-style-type: none">• Albert Bandura• Carl Thoresen• Wes Becker |
| Programmed Schedule (task performance reinforcement) | <ul style="list-style-type: none">• B. F. Skinner |

Behavioral System Models are explained below.

- > **1. Mastery Learning**
- > **2. Direct Instruction**
- > **3. Simulation**
- > **4. Social Learning**
- > **5. Programmed Schedule**

1. Match List I with List II: (UGC NET 27 Nov Morning 2021)

List I (Behavioral Model)

- a. Mastery learning
- b. Direct Instruction
- c. Simulation
- d. Social learning

List II (Developer)

- i. Albert Bandura
- ii. Tom Good
- iii. Benjamin Bloom
- iv. Carl Smith

a- iii , b- ii , c- iv , d- i

a- ii , b- iv , c- i , d- iii

a- iv , b- i , c- iii , d- ii

a- i , b- iii , c- ii , d- iv

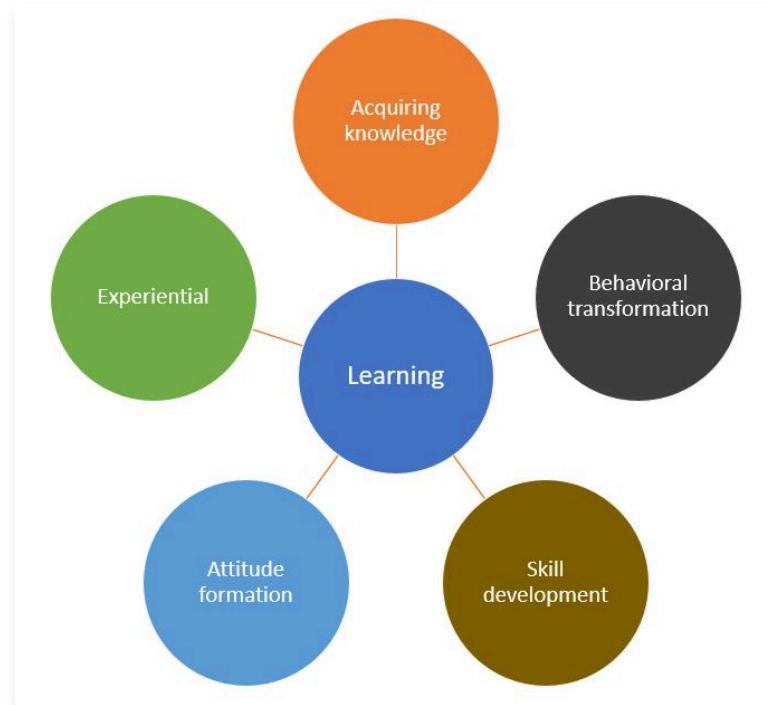
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Question: 1 of 4 questions

1. Learning Concept

The term "learning" finds its origins in the old English word "leornian," which meant "acquiring knowledge" or "contemplating." Learning involves the process of gaining new information or modifying existing knowledge, preferences, skills, values, or behaviors.

Learning is how individuals acquire the knowledge, attitudes, and skills necessary to navigate life's demands. For instance, a child who touches a burning candle and gets burnt quickly learns to withdraw their fingers to avoid harm. Over time, they extend this learning to avoid other hot objects. Experiences shape an individual's behavior, and this transformation due to experiences is commonly referred to as learning. Learning also takes place through direct experiences, like a child learning to write through practice. Parents, teachers, and the environment play essential roles in a child's learning process.



Almost all human behavior is learned, but not all changes stem from learning. Some changes, such as physical growth or brain development, are controlled by genetic factors and are called maturation. For instance, children learn to walk when their nervous systems, muscle strength, and balance abilities reach the necessary level for walking—an outcome of maturation, not the extent of practice in walking.

Learning can occur consciously through formal education, personal development, schooling, and training. It can also happen unconsciously through various experiences, like conversations or watching television programs.

1. In which of the following, the direction of influence is mainly one way: (**UGC NET 17 Oct 2020 Morning paper**)

- Counselling
- Guiding
- Teaching
- Learning

Check

Question: 1 of 6 questions

2. Characteristics of Learning

Characteristics of learning encompass lasting behavioral changes and the acquisition of knowledge, skills, and attitudes through various means and styles.

Characteristic features of Learning include the following:

- (i) Genuine learning results in enduring modifications in an individual's behaviour.
- (ii) Ideally, learning leads to positive changes, although not all changes necessarily result in improvements or positive development.
- (iii) Learning excludes behavioral changes due to factors like maturation, fatigue, illness, or drugs, indicating that not all changes in behavior are solely attributed to learning.
- (iv) Learning does not always require formal instruction and can occur through various means.
- (v) An individual's understanding of learning is influenced by their past experiences.
- (vi) Learning can take place in formal settings like schools or colleges, as well as informally through daily life experiences.
- (vii) Learning involves not only acquiring knowledge and facts but also developing skills and attitudes.
- (viii) People have different learning styles, including receivers (memorizers), detectives (investigators), and generators (self-directed learners).
- (ix) Learning can be superficial, involving memorization, or deep, involving the active application of knowledge.
- (x) Motivation plays a crucial role in the learning process.
- (xi) Learning is a lifelong journey, continuing throughout one's life.
- (xii) Learning is not an innate ability but a process of acquiring competence using inherent resources.
- (xiii) True learning often has a purpose behind it, motivating individuals to acquire knowledge or skills.
- (xiv) Attitudes, fears, gestures, motor skills, language skills etc. are outcomes of learning rather than learning itself.

1. Which of the following is not the characteristics of learning? (**UGC NET 16 Mar 2023 Morning**)

- Change in behaviour is relatively enduring.
- Learning does not necessarily imply improvement.
- Learning involves reconstruction of experiences.
- Learning necessarily implies development in right direction.

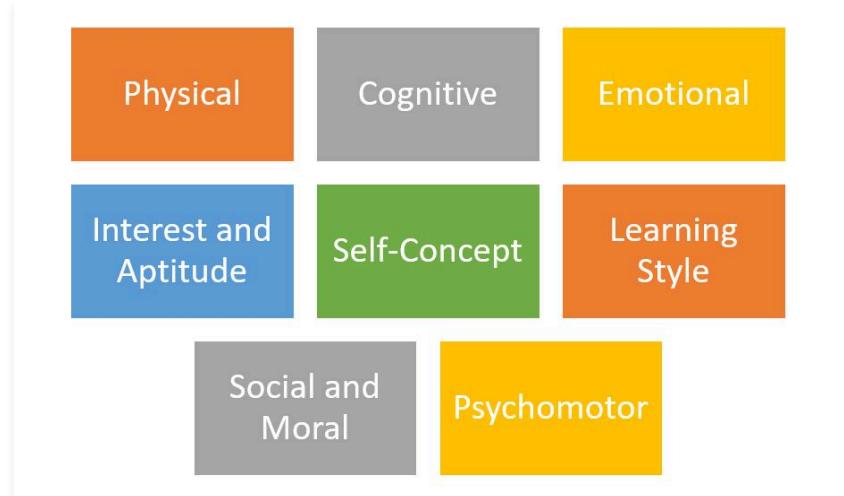
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Question: 1 of 5 questions

3. Recognizing Individual Differences

Learning is not a one-size-fits-all endeavor. Individuals have unique learning styles, preferences, and strengths that influence how they process and retain information.

Individual differences in psychology refer to the distinct characteristics that set individuals apart, encompassing elements like intelligence, personality, learning preferences, and needs. Conventional teaching methods often disregard these distinctions, yet recognizing them is essential for effective instruction. Students exhibit variations in prior knowledge, abilities, learning styles, interests, motivation, and socio-environmental factors. Embracing a "Student-Centric" teaching approach is the most effective way to accommodate these diversities.



Key dimensions of individual differences include:

- *Physical Variations*: These encompass factors such as chronological age, physical maturity, health status, physical fitness, and fatigue.
- *Cognitive Variations*: Intellectual abilities, reasoning skills, imagination, creative expression, and concentration abilities fall under this category.
- *Emotional Variations*: Positive emotions (e.g., love, affection, amusement) and negative emotions (e.g., anger, fear, sadness) are part of emotional differences.
- *Interest and Aptitude Variations*: Specific preferences and aptitudes, like mechanical, scholastic, musical, and artistic aptitude, fall into this group.
- *Variations in Self-Concept*: This includes self-perception, self-esteem, and judgements about one's abilities and limitations.
- *Learning Style Variations*: Learning styles can be categorized as Receiver (memorization), Detective (investigation and understanding), and Generator (self-directed learning).
- *Social and Moral Variations*: These cover aspects of social adjustment, social life, ethical sense, and moral values.
- *Psychomotor Variations*: Differences in the relationship between cognitive and physical abilities, coordination of limbs and digits, and proficiency in using machinery are part of psychomotor variations.

Inclusive Teaching

To address individual differences effectively, teachers should be attuned to the learners' levels of intelligence, abilities, and cultural backgrounds. Inclusive teaching strives to create a learning environment that allows all students, regardless of their backgrounds, to reach their full learning potential and support fellow students who may wish to learn from them. It recognizes the uniqueness of individuals and their differences as sources of enrichment for the broader learning community.

1. Which one of the following developmental areas of individual differences will be affected, if a child does not war with other children as he/she feels shy? (**UGC NET 10 Oct 2022 Morning**)

- Physical development
- Emotional development
- Social development
- Language development

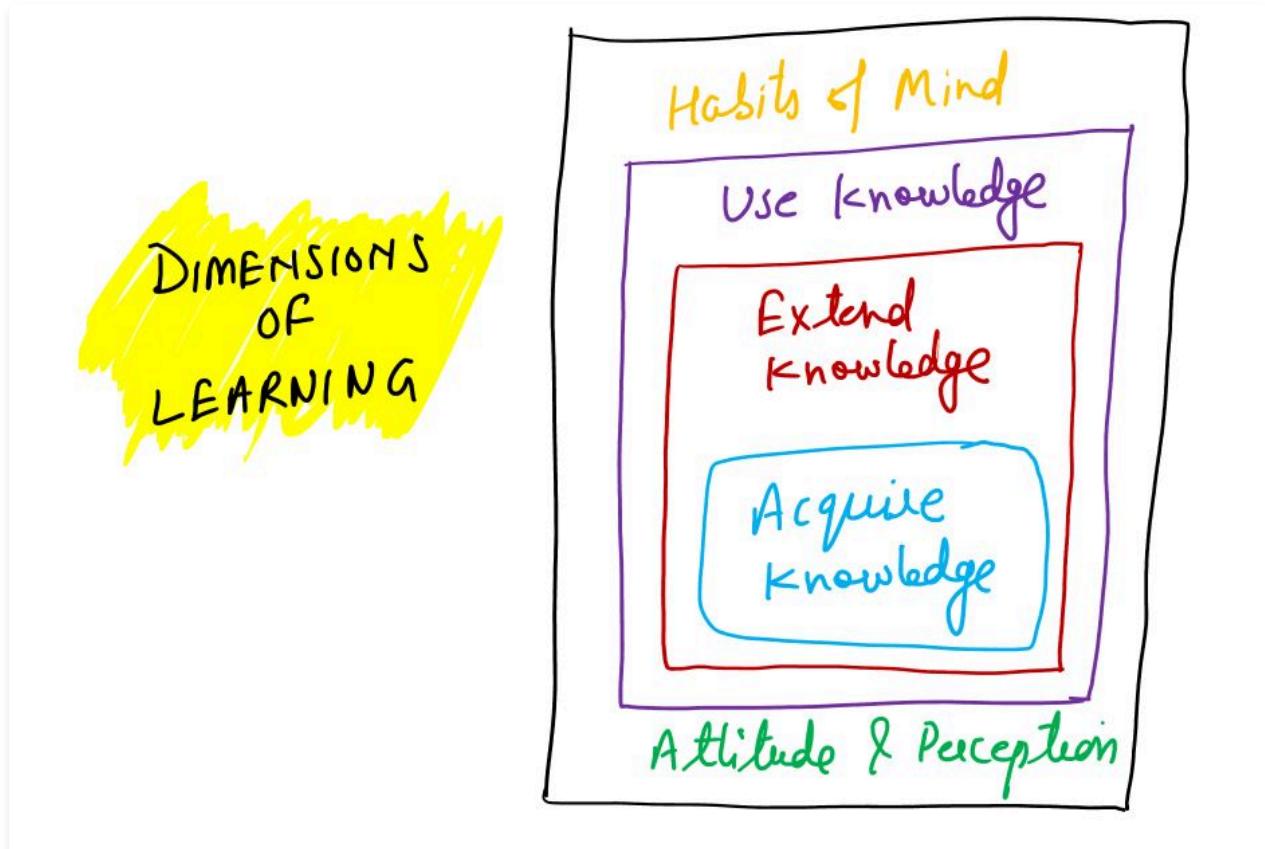
 Check

Question: 1 of 3 questions

4. Dimensions of Learning

The Dimensions of Learning was developed by Dr. Robert Marzano. It is a comprehensive model that uses what researchers and theorists know about learning to define the learning process. Its premise is that five types of thinking—what we call the five dimensions of learning—are essential to successful learning. The Dimensions framework will help to maintain a focus on learning, study the learning process and plan curriculum, instruction, and assessment that takes into account the five critical aspects of learning.

Five dimensions of learning are essential to successful learning. These 5 dimensions of learning are:



1. **Attitudes and Perceptions** - A key element of effective teaching is helping learners to establish positive attitudes and perceptions about the classroom and about learning because these affect learners' abilities to learn.
2. **Acquire and Integrate Knowledge** - Providing new knowledge by integrating the previous knowledge helps in learning through guiding students in relating the new knowledge to what they already know.
3. **Extend and Refine Knowledge** – Learners develop an in-depth understanding through the process of extending and refining their knowledge (e.g. by making new distinctions, clearing up misconceptions, and reaching conclusions).
4. **Use Knowledge Meaningfully** - The most effective learning occurs when we use knowledge to perform meaningful tasks (application of knowledge). So, making sure that learners have the opportunity to use knowledge meaningfully is one of the most important parts of planning a teaching activity.
5. **Habits of Mind** - Habits of Mind is habitual thinking by the learner. Students learn to regulate themselves and think critically and creatively.

Briefly, as the graphic in Figure illustrates, all learning takes place against the backdrop of learners' attitudes and perceptions (Dimension 1) and their use (or lack of use) of productive habits of mind (Dimension 5). If students have negative attitudes and perceptions about learning, then they will likely learn little. If they have positive attitudes and perceptions, they will learn more and learning will be easier. Similarly, when students use productive habits of mind these habits facilitate their learning. Dimensions 1 and 5, then, are always factors in the learning process. This is why they are part of the background of the graphic shown in Figure. When positive attitudes and perceptions are in place and productive habits of mind are being used, learners can more effectively do the thinking required in the other three dimensions, that is, acquiring and integrating knowledge (Dimension 2), extending and refining knowledge (Dimension 3), and using knowledge meaningfully (Dimension 4).

Notice the relative positions of the three circles of Dimensions 2, 3, and 4. (See Figure) The circle representing meaningful use of knowledge subsumes the other two, and the circle representing extending and refining knowledge subsumes the circle representing acquiring and integrating knowledge. This communicates that when learners extend and refine knowledge, they continue to acquire knowledge, and when they use knowledge meaningfully, they are still acquiring and extending knowledge. In other words, the relationships among these circles represent types of thinking that are neither discrete nor sequential. They represent types of thinking that interact and that, in fact, may be occurring simultaneously during learning.

Consider example of Sonia, who is keen to learn the Pythagorean Theorem.

1. *Attitudes and Perceptions*: Sonia enters her maths class with enthusiasm, viewing maths as valuable.
2. *Acquire and Integrate Knowledge*: The teacher builds on Sonia's prior understanding of right triangles, introducing the Pythagorean Theorem.
3. *Extend and Refine Knowledge*: Sonia engages in discussions, clears misconceptions, and explores practical applications of the theorem.
4. *Use Knowledge Meaningfully*: She applies the theorem to real-world problems, understanding its practical significance.
5. *Habits of Mind*: Sonia develops patience, creativity, and self-regulation, enhancing her overall maths skills.

Dimensions of Learning include:

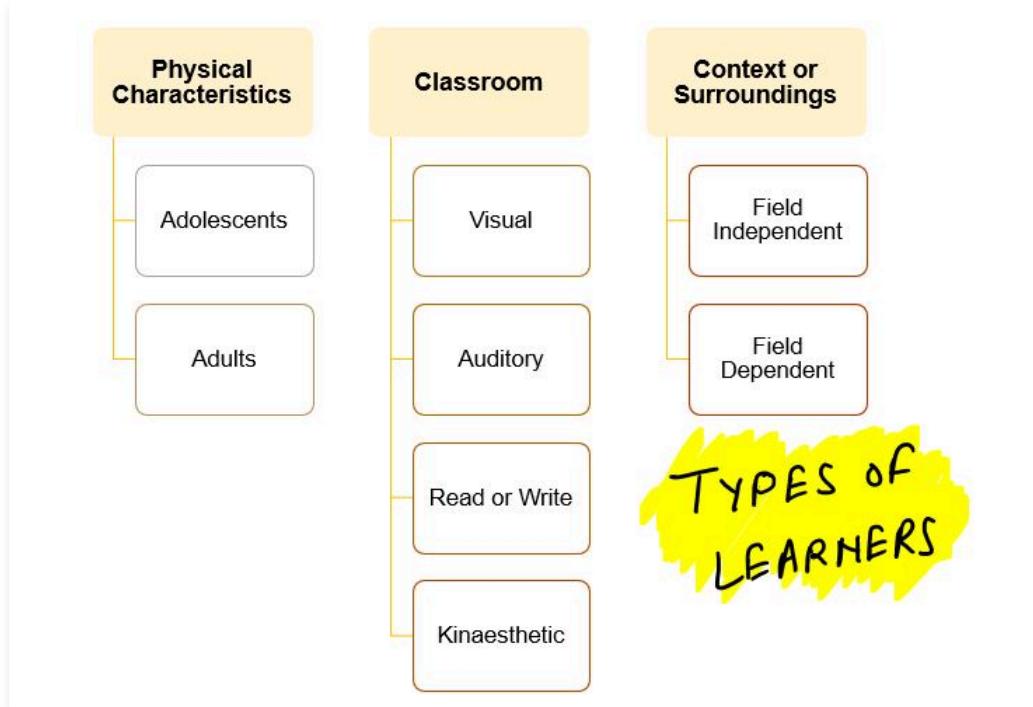
- (a) Attitudes and Perceptions.
- (b) Acquire and Integrate Knowledge.
- (c) Extend and Refine Knowledge.
- (d) Use Knowledge Meaningfully.
- (e) Habits of Mind.

- (a) and (b) only
- (b), (c) and (d)
- (a), (b), (c), (d)
- (a), (b), (c), (d) and (e)

Check

5. Types of Learners

The types of Learners can be categorized as follows on the basis of physical characteristics, classroom and context or surroundings.



- > 1. On the basis of Physical Characteristics
- > 2. On the basis of Classroom
- > 3. On the basis of Context or Surroundings

1. What are the learning styles according to Fleming's VARK model of learning? (**UGC NET 24 Mar 2023 Evening**)

- Verbal, Auxiliary, Kinesthetic, Rehearsal
- Visual, Auditory, Reading/writing, Kinesthetic
- Verbal, Augmentative, Retrospective, Kinetic
- Visual, Augmentary, Reading, Kinetic

Check

Question: 1 of 6 questions

6. Characteristics of Adolescent and Adult Learners

Adolescents navigate a phase marked by intense physical, emotional, and cognitive changes, requiring tailored attention across academic, social, emotional, and cognitive dimensions. On the other hand, adult learners, characterized by autonomy and diverse life experiences, exhibit unique traits such as self-direction, goal-setting, and a strong emphasis on the practical relevance of learning. Recognizing the individual needs and motivations of these learners is paramount for creating successful educational experiences.

Adolescent Learner

During adolescence, young individuals undergo significant changes in their physical, emotional, intellectual, moral, and social aspects. These changes can be intense and diverse, requiring careful attention from those responsible for guiding their learning.

The key characteristics of adolescent learners can be categorized as follows:

- *Academic dimension* refers to the educational background, level, and knowledge of the learners.
- *Social dimension* involves the process of establishing a sense of identity, finding one's role and purpose, and taking risks as a natural part of this journey.
- *Emotional dimension* focuses on how individuals think and feel about themselves and others. Adolescence is a time of rapid changes, during which developing and demonstrating emotional assets like resilience, self-esteem, and coping skills becomes particularly important.
- *Cognitive dimension* involves processes related to thought, reasoning, and perception. The brain undergoes physical changes during adolescence, following typical patterns of cognitive development. This period is characterized by heightened brain plasticity, making it a sensitive time for cognitive growth.

Adult Learner

Adult Learner is a mature student who is acquiring new knowledge and skills, developing new attitudes after having reached mature intellectual, physical and social development.

The key characteristics of the Adult Learner are as follows:

- Adult learners vary distinctly in their needs, problems, requirements, attitudes, and outlooks.
- They are autonomous, independent, and self-directed in their learning.
- Adult learners set clear goals for themselves and join the learning process voluntarily.
- They are highly result-oriented and have specific outcomes in mind.
- The relevance of the learning process is important to adult learners.
- They bring a wealth of experience and knowledge to their learning.
- They are motivated to be part of the learning process.
- Adult learners juggle multiple responsibilities, requiring flexible curriculum design.
- They value practicality and the usefulness of their learning activities.
- Adult learners can be resistant to change due to their maturity and experience.
- They take responsibility for their own success or failure in learning.

1. Which of the following are the intellectual development characteristics of Adolescents? (UGC NET 14 Mar 2023)

- A. Imagination
- B. Abstract emotions
- C. Thinking and reasoning
- D. Span of attention

B, C and D only

B and D only

A, C and D only

A, B and D only

 Check

Question: 1 of 7 questions

7. Bloom's Taxonomy of Learning

Bloom's Taxonomy was created in 1956 under the leadership of educational psychologist Dr. Benjamin Bloom in order to promote higher forms of thinking in education such as analyzing and evaluating concepts, process, procedures and principles, rather than just remembering facts (rote learning). It is most often used when designing educational, training and learning process. In simple words, Bloom's Taxonomy is a hierarchical ordering of cognitive skills that can, among countless other uses, help teachers teach and students learn.

The 3 domains of educational activities for learners are discussed below:



- > **1. Cognitive Objectives**
- > **2. Affective Objectives**
- > **3. Psychomotor Objectives**

1. According to Bloom's taxonomy of educational objectives, which of the following are the categories of cognitive (**UGC NET 13 Mar 2023 Morning**)

- A. Receiving
- B. Valuing
- C. Application
- D. Knowledge
- E. Organisation

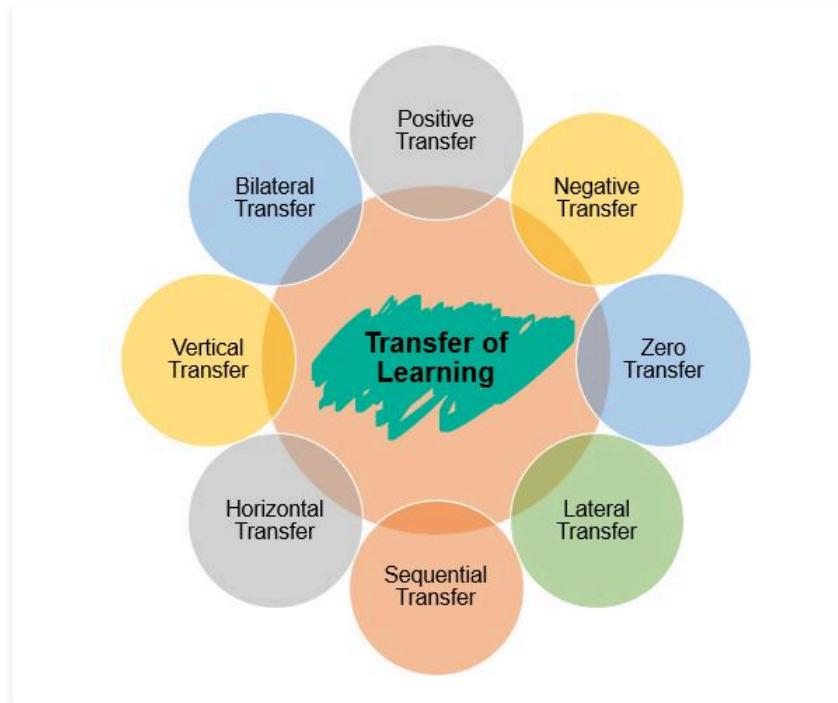
- C and D only
- A, B, D and E only
- C and E only
- A, B and C only

Check

Question: 1 of 5 questions

8. Transfer of Learning

Transfer of learning is the dependency of human conduct, learning, or performance on prior experience. The notion was originally introduced as transfer of practice by Edward Thorndike and Robert S. Woodworth. They explored how individuals would transfer learning in from one context to another similar context – or how "improvement in one mental function" could influence a related one.



Transfer is said to have 8 types namely:

- > **1. Positive transfer**
- > **2. Negative transfer**
- > **3. Zero transfer**
- > **4. Lateral transfer**
- > **5. Sequential transfer**
- > **6. Horizontal transfer**
- > **7. Vertical transfer**
- > **8. Bilateral transfer**

1. A learner learns to bake a cake in school. He/she applies the knowledge to bake the cake at home. It is a type of learning. (**UGC NET 13 Mar 2023 Evening**)

Horizontal transfer

Vertical transfer

Zero transfer

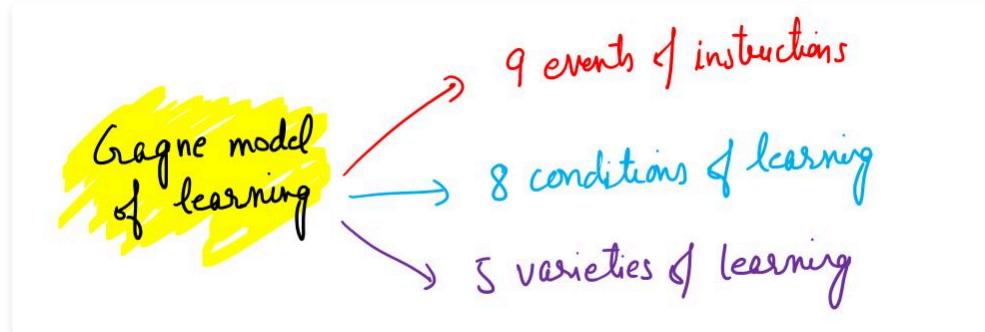
Negative transfer

Check

Question: 1 of 2 questions

9. Gagne's Levels of Learning

Robert Gagne, a prominent educational psychologist, made significant contributions to the field of instruction during the 1940s. His influential book, "The Conditions of Learning," was initially published in 1965. In this book, Gagne identified the essential mental conditions that support effective learning. Gagne believed that both cognitive and behavioral factors play important roles in effective learning.



His theory of instruction is commonly broken down into 3 areas: events of instruction, conditions of learning and varieties of learning.

I. Events of Instruction

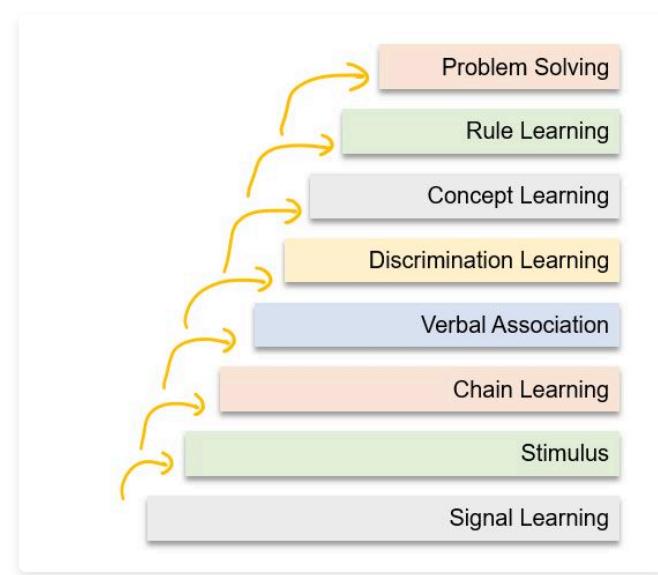
Gagne's Nine Levels of Learning model serves as a useful checklist for trainers and educators to guide their teaching and training activities. Each step focuses on a specific form of communication that supports the learning process.



- > 1. Gaining Attention (Reception)
- > 2. Informing Learners of the Objective (Expectancy)
- > 3. Stimulating Recall of Prior Learning (Retrieval)
- > 4. Presenting the Stimulus (Selective Perception)
- > 5. Providing Learning Guidance (Semantic Encoding)
- > 6. Eliciting Performance (Responding)
- > 7. Providing Feedback (Reinforcement)
- > 8. Assessing Performance (Retrieval)
- > 9. Enhancing Retention and Transfer (Generalization)

II. Conditions of Learning

Gagne's also identified 8 conditions of learning beginning from simple to complex.



- > 1. Signal learning
- > 2. Stimulus-response learning
- > 3. Chain learning
- > 4. Verbal association
- > 5. Discrimination learning
- > 6. Concept learning
- > 7. Rule learning
- > 8. Problem solving

III. Varieties of Learning

Gagne also identified 5 categories or varieties of learning which include:

- > **1. Intellectual Skills**
- > **2. Cognitive strategy**
- > **3. Verbal information**
- > **4. Motor skills**
- > **5. Attitude**

1. Arrange these instructional events for delivering the lesson to students in sequential order from the beginning to the end. (UGC NET 25 Nov 2021 Morning)

- a. Informing the learner of the objectives.
- b. Eliciting desired behaviour.
- c. Gaining attention.
- d. Presenting the content.
- e. Providing feedback.

a, d, b, c, e

d, c, b, a, e

c, a, d, b, e

b, c, a, e, d

Check

Question: 1 of 6 questions

10. Important concepts of Learning

Some of important concepts, related to learning, are discussed next.

10. Important concepts of Learning

Learning disorders are neurodevelopmental conditions that affect the acquisition and use of academic skills. These disorders significantly impact a person's ability to listen, think, speak, read, write, spell, or do mathematical calculations. Some common types of learning disorders are as follows.

Dyscalculia

Dyscalculia is a learning disorder characterized by a difficulty in understanding mathematics and numbers. Individuals with dyscalculia may struggle with grasping fundamental mathematical concepts, performing calculations, and comprehending numerical relationships.

Dysgraphia

Dysgraphia is a learning disorder primarily associated with writing difficulties. Individuals with dysgraphia often exhibit poor handwriting, inconsistent spacing between words, and frequent spelling errors. This condition affects the ability to translate thoughts into written form effectively.

Dyslexia

Dyslexia is a common learning disorder that manifests as difficulties in reading, recognizing letters and words, and achieving fluent reading. Individuals with dyslexia may face challenges in processing phonological information, impacting their ability to decode written language and comprehend text.

Dysphasia/Aphasia

Dysphasia or aphasia refers to a language disorder characterized by difficulties in understanding spoken language. Individuals with dysphasia may struggle to comprehend verbal communication or express themselves coherently through speech.

1. Due to which of the following disabilities, learners have difficulty in understanding concept of quantity and fraction?
NET 21 Oct 2022 Morning)

- Dyslexia
- Dyspraxia
- Dysgraphia
- Dyscalculia

Check

Question: 1 of 5 questions

10. Important concepts of Learning

The prefix 'meta' means 'about' the thing itself. So, metacognition is 'cognition about cognition', or 'thinking about one's thinking'.



It is often considered to have 2 dimensions: metacognitive knowledge and metacognitive regulation.

1. **Metacognitive knowledge** includes the learner's knowledge of their own cognitive abilities (e.g. I have trouble remembering dates), the learner's knowledge of the nature of particular tasks (e.g. the ideas in this article are complex), and the learner's knowledge of different strategies including when to use these strategies (e.g. if I break telephone numbers into chunks I will remember them).
2. **Metacognitive regulation** describes how learners monitor and control their cognitive processes. For example, realising that the strategy they are using to solve a mathematical problem is not working and trying another approach.

Learners with meta cognitive skills are:

- more self-aware as critical thinkers and problem solvers, enabling them to actively approach knowledge gaps and problems and to rely on themselves.
- able to monitor, plan, and control their mental processes.
- better able to assess the depth of their knowledge.
- able to transfer/apply their knowledge and skills to new situations.
- able to choose more effective learning strategies.
- more likely to perform better academically.

Instructors who teach meta cognitively / think about their teaching are:

- more self-aware of their instructional capacities, and know what teaching strategies they rely upon, when and why these use these strategies, and how to use them effectively and inclusively.
- better able to regulate their instruction before, during, and after conducting a class session (i.e., to plan what and how to teach, monitor how lessons are going and make adjustments, and evaluate how a lesson went afterwards).
- better able to communicate, helping students understand the what, why, and how of their learning, which can lead to better learning outcomes.
- able to use their knowledge of students' meta cognitive skills to plan instruction designed to improve students' meta cognition and to create inclusive course climates.

1. What higher - order knowledge can make the difference between how well and quickly one's students learn ma
(UGC NET 03 Mar 2023 Evening)

Declarative

Rote

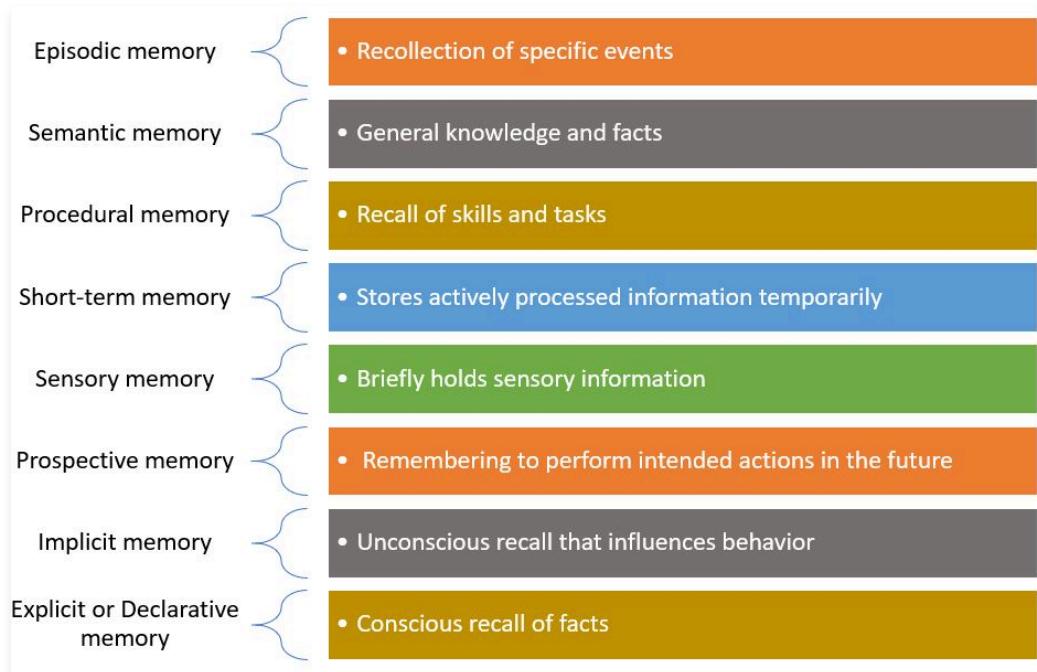
Meta cognition

Procedural

Check

10. Important concepts of Learning

Memory encompasses a diverse range of functions, each serving its purpose in encoding, storing, and retrieving information.



The types of memory are discussed below:

- > **Episodic Memory**
- > **Semantic Memory**
- > **Procedural Memory**
- > **Short-term Memory and Working Memory**
- > **Sensory Memory**
- > **Prospective Memory**
- > **Implicit and Explicit memory**

4 R's of Memory

There are 4 R's of Memory which are a set of principles designed to improve memory recall and retention.

1. *Remembering*: The process of encoding information into memory and retaining it over time.
2. *Retention*: The ability to store and maintain information in memory for future use.
3. *Recall*: The process of retrieving stored information from memory and bringing it into conscious awareness.
4. *Recognition*: The ability to identify or recognize previously encountered information or stimuli.

1. Given below are two statements: (UGC NET 27 Nov 2021 Evening)

Statement I: Working memory has a development trajectory- it increases throughout childhood, and it decreases

Statement II: Working memory does not get adversely affected by ongoing stresses.

- Both Statement I and Statement II are correct.
- Both Statement I and Statement II are incorrect.
- Statement I is correct but Statement II is incorrect.
- Statement I is incorrect but Statement II is correct.

 Check

Question: 1 of 4 questions

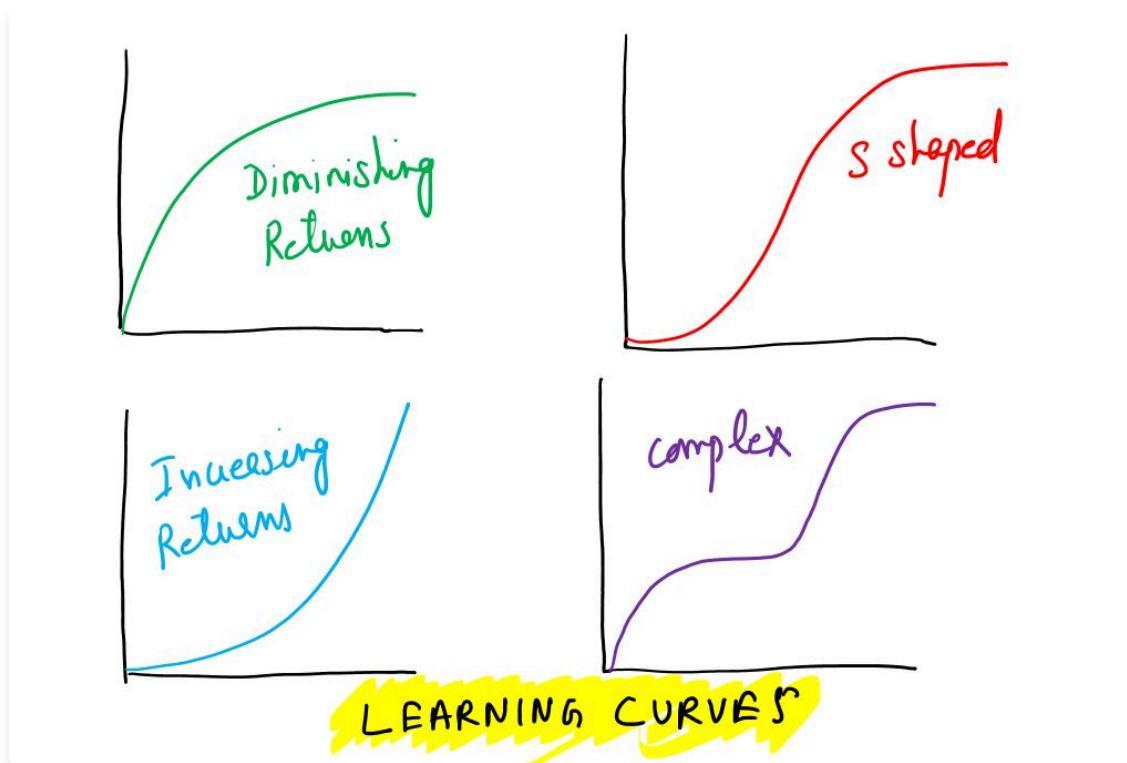
10. Important concepts of Learning

A learning curve is a graphical representation that depicts the rate at which a person or a group of people learn a new skill over time.

Features of Learning Curve

To comprehend any learning curve, several key concepts should be considered:

- **Spurts:** This denotes that once learners have overcome the initial challenges of acquiring new knowledge, their learning accelerates, characterized by sudden and rapid improvements in understanding.
- **Decline:** As individuals progress in their learning, the rate of improvement gradually slows down. This phase marks a diminishing pace in skill acquisition after the initial rapid learning, leading to a tapering off of the learning curve.
- **Plateaus:** Learning curves often exhibit plateaus, which occur after a certain period. These plateaus signify a phase of "No Learning," where there is neither progress nor regression; learning becomes stagnant. Factors contributing to plateaus may include fatigue, lack of interest, motivation, attention, or persistence in practice, insufficient monitoring and feedback from mentors, overly difficult learning materials, and so on.
- **Inconsistent Progress:** Almost all learning curves demonstrate irregular progress, indicating fluctuations in the learning process. This variability can be attributed to personal factors such as mood, mental state, or external influences that affect the learning journey.
- **Final Stage:** Learning curves reveal that there is a point where improvement is no longer possible, signifying an ultimate limit to skill or knowledge acquisition.



Shapes of Learning Curve

The learning curve can assume different shapes based on the nature of the learning process and the complexity of the task. Here are various shapes:

- > 1. Diminishing-Returns Learning Curve
- > 2. Increasing-Returns Learning Curve
- > 3. Increasing-Decreasing Return Learning Curve
- > 4. Complex Learning Curve

1. Which period of learning shows no improvement in learning curve? (**UGC NET 02 Mar 2023 Evening**)

Irregular progress

Spurts

Plateau

Initial Stage

Check

Question: 1 of 3 questions

1. Introduction

Teaching and learning are closely intertwined. A teacher's role is to facilitate learning in others. The effectiveness of a teacher's efforts is directly linked to the quality and value of the learning that occurs in their students. Teacher-student interactions typically fall into one of three categories: authoritarian, democratic, and laissez-faire. However, in real classrooms, these relationships often overlap. For instance, a teacher may switch between being authoritative, democratic, or laissez-faire depending on the situation. These different relationships can shape distinct personality traits in students.

- Students taught by an **authoritarian teacher** may develop apathy and dependency, lacking initiative and group collaboration, and showing disinterest in their work.
- In contrast, a **democratic teacher** respects the individuality of their students, fostering an environment where students freely engage with one another, resulting in high efficiency and independent work habits.
- A **laissez-faire teacher** takes an approach opposite to that of an authoritarian teacher by not providing strict guidance. In this setting, students tend to be more cooperative in their actions.

Relationships may overlap in actual classrooms and different relationships influence student personality characteristics.

1. By which of the following means can a teacher establish a good rapport with his/her students? (**UGC NET 20 C Evening**)

- Showing authority in class.
- Impressing students by his/her knowledge and skill.
- Playing the role of a guide/facilitator with a desire to help them.
- Becoming a friend to the students

 Check

Question: 1 of 4 questions

2. Comparison between Teaching and Learning

Teaching and learning are two fundamental aspects of education, intricately connected yet distinct in their roles and functions. While teaching involves the transmission of knowledge and skills, learning is the process through which individuals acquire, internalize, and apply this knowledge.

The Teaching and Learning have been compared in the following table:

| Basis of Comparison | Teaching | Learning |
|---------------------|---|---|
| Goal | Impart knowledge and monitor behavior change. | Understand and apply knowledge. |
| Authority | Teachers possess higher authority. | Learners have less authority compared to teachers. |
| Dependence | Requires students as recipients of knowledge. | Can occur through solitary experiences without teachers. |
| Feedback | Provides feedback for behavior improvement. | Involves understanding and applying feedback. |
| Directive | Can be assigned and verified through plans and curricula. | An internal process, cannot be mandated. |
| Population | Fewer teachers compared to learners. | More learners than teachers. |
| Autonomy | Infused with autonomy. | Students seek permission from teachers for certain behaviors. |
| Responsibility | Teachers facilitate lessons. | Learners are responsible for acquiring knowledge. |
| Consciousness | Mostly a conscious task. | Can be conscious or unconscious. |

1. Which of the following statements differentiate teaching from learning? (**UGC NET 4 Dec 2019 Morning**)

- (a) Teaching is a social act while learning is a personal act
- (b) Teaching implies learning
- (c) Teaching is like selling while learning is like buying
- (d) Teaching can occur without learning taking place
- (e) In teaching, influence is directed towards learning and learner, while in learning it is usually towards oneself.

- (a), (c) and (e)
- (a), (b) and (c)
- (b), (c) and (d)
- (c), (d) and (e)

Check

Question: 1 of 3 questions

3. Teaching and Learning Skills

Teaching Skills

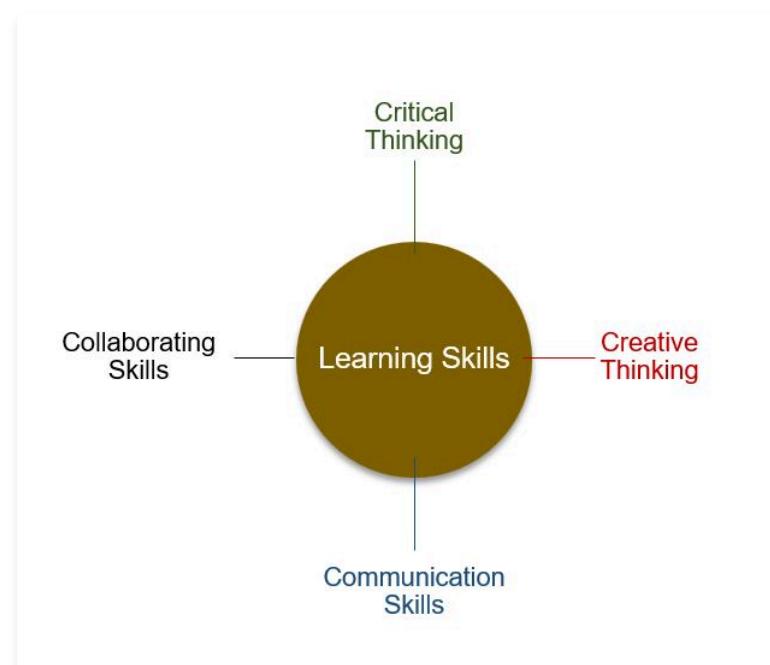
Teaching is a process that facilitates learning. Teaching is the specialized application of knowledge, skills and attributes designed to provide unique service to meet the educational needs of an individual and of the society. The effectiveness of the teaching learning process adheres to the teaching skills of the teacher and the learning skills of the learner.



Key teaching skills include:

- Interpersonal skills, effective speaking, and presentation skills for interactive teaching.
- Confidence in handling the subject matter and addressing student questions.
- Organizational skills to plan activities based on learner needs and interests.
- Teamwork abilities for collaboration with peers and groups.
- Conflict resolution skills to manage conflicts among students or peers.
- Motivation skills to inspire student interest and attitude toward the subject.
- Empathy towards students, building trust and working together towards goals.
- Proficiency in evaluation methods and unbiased feedback provision.

Learning Skills



The 4 Cs of learning skills are critical thinking, creative thinking, communication skills, and collaborating skills:

- *Critical thinking* involves analyzing something carefully to gain a deeper understanding.
- *Creative thinking* is a process of open-ended exploration and discovery of possibilities.
- *Communication skill* involve considering the subject, purpose, sender, receiver, medium, and context of a message.
- *Collaborating skill* is the ability to understand others' ideas, establish shared practices, build positive relationships, and resolve conflicts.

1. Akshay, an eight-year old boy, was emotionally stable and performed well in school. His parents have divorced. Due to this, he has become a very anxious child. What can Akshay's teacher do to help alleviate his anxiety in the ? (**UGC NET 6 Mar 2023 Morning**)

- His teacher could provide structure, organizational tools and choices.
- His teacher could respect Akshay's emotional state and leave him alone.
- His teacher could provide Akshay with counselling regarding his anxiety.
- His teacher could tell the other children that Akshay is anxious, and that they must be extra nice to him.

 Check

Question: 1 of 7 questions

4. Effective Teaching- Scientific Approach

Effective teaching aims to motivate and engage all students, recognizing that each student develops at a different pace with varying abilities. Instead of catering only to the average level, effective teachers accommodate the diverse needs of their students. They reject the notion that some students cannot be engaged and instead strive to ensure no student is left bored or struggling. Earlier definitions of effective teaching focused on being a role model, but later definitions shifted towards identifying the impact of teacher behaviour on students.

Gary Borich identified approximately 10 teacher behaviors that show promising relationships to desirable student performance, primarily as measured by classroom assessments and standardized tests.

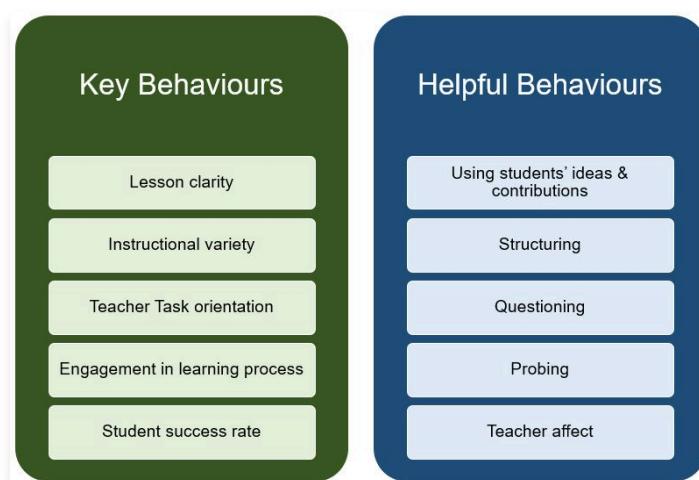
The first 5 are called **key behaviors**, because they are considered essential for effective teaching. The second 5 are called **helping behaviors**, because they can be used in combinations to implement the key behaviors.

These key and helping behaviours are discussed below.

5 key behaviours

Borich states that there are *5 key behaviours* that make effective teachers:

- > **1. Lesson clarity**
- > **2. Instructional variety**
- > **3. Teacher task orientation**
- > **4. Engagement in the learning process**
- > **5. Student success rate**



5 helpful behaviours

5 *Helpful Behaviours* that are closely related to the key Behaviours:

> 1. Using student ideas and contributions

> 2. Structuring

> 3. Questioning

> 4. Probing

> 5. Teacher affect

1. The key behavior of an effective teacher is marked by which of the following features? (**UGC NET 20 Nov Ever**

- a. Structuring
- b. Teacher task orientation
- c. Instructional Variety
- d. Lesson clarity
- e. Probing

a, b and c only

a, c and d only

b, c and d only

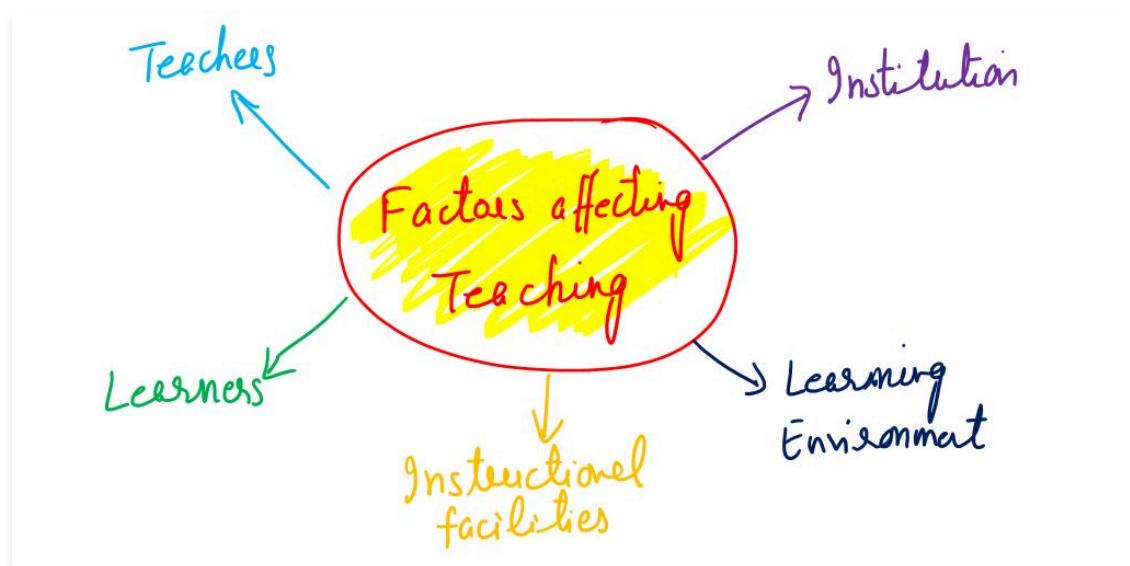
c, d and e only

Check

Question: 1 of 6 questions

5. Factors affecting Teaching

Effective teaching is influenced by a myriad of factors, and these elements can be categorized into five key areas: the teacher, the learner, the learning environment, the institutions, and the instructional facilities and support materials. These components play pivotal roles in shaping the educational experience and outcomes for both educators and students.



These factors are discussed below one by one.

- > **1. Teacher related factors**
- > **2. Learner related factors**
- > **3. Instructional facilities related factors**
- > **4. Learning environment related factors**
- > **5. Institution related factors**

1. In the context of curriculum, which of the following are correct? (**UGC NET 08 Oct 2022 Evening**)

- a. Curriculum should be Modified regularly.
- b. Curriculum should have theoretical concepts only.
- c. Curriculum should be derived from constitutional imperatives of the country.
- d. Curriculum should be made as per needs of industry & society.
- e. Curriculum should be teacher-centric.

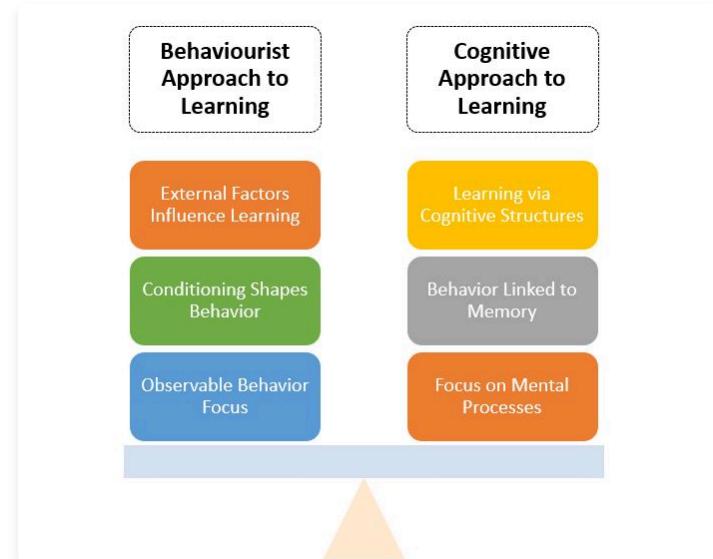
- a, d and e only
- c and d only
- a, c and d only
- a, b, c and d

Check

Question: 1 of 6 questions

1. Schools of Learning

There are two prominent schools of learning, Behaviourist Approach to Learning and Cognitive Approach to Learning.



- > **Behaviourist Approach to Learning**
- > **Cognitive Approach to Learning**
- > **Cybernetic Analogy**

Below are listed some learners' characteristics. Identify those that help in effective teaching. (**UGC NET 21 June : Evening**)

- (a) Learners' respect for teacher
- (b) Learners' level of mental ability
- (c) Learners' previous experience
- (d) Learners' level of interest to study
- (e) Learners' level of interpersonal relation
- (f) Learners' view about the society

(a), (b), (c) and (f)

(c), (d), (e) and (f)

(a), (b), (c) and (d)

(b), (c), (d) and (f)

Check

2. Trial and Error theory – Thorndike

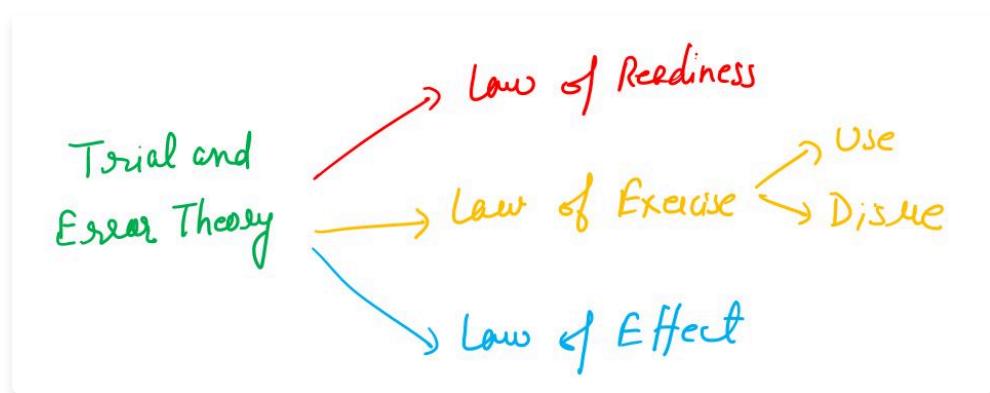
E.L. Thorndike, an American psychologist, developed the theory of learning through trial and error.



He believed that learning is a gradual process that occurs through repeated attempts. As the number of trials increases, the number of errors decreases due to the formation of associations between sense impressions and impulses to action.

Primary Laws of Learning

Thorndike explained 3 primary laws of learning. Let us understand them using example of "teaching a child to ride a bicycle".



> 1. Law of Readiness

> 2. Law of Exercise

> 3. Law of Effect

In conclusion, Thorndike's theory highlights the importance of repeated practice and reinforcement in the learning process. However, it also acknowledges that the process can be time-consuming and may involve a considerable amount of effort.

Secondary Laws of Learning

In addition, Thorndike explained following secondary laws of learning.

1. Law of Multiple Response or Varied Reactions

This law states that when faced with a new situation, a person will try different responses until they find the correct one. It involves trial and error.

For example, when someone is solving a jigsaw puzzle for the first time, they might try fitting many pieces together in various ways before finding the correct matches and completing the picture.

2. Law of Attitude

This law states that the learner's attitude toward a task influences how well they perform it. A positive and open attitude can lead to better learning and performance.

For example, a student who approaches studying with interest and curiosity is more likely to understand and remember the material compared to a student who views studying as a boring chore.

3. Law of Analogy

This law states that people use their past experiences in similar situations to respond to new situations. They draw comparisons between the new and the familiar.

For example, if someone knows Spanish and is learning Italian, they might use their knowledge of Spanish vocabulary and grammar to understand and learn Italian words and sentences, as the languages have many similarities.

4. Law of Associative Shifting

This law states that any response can be associated with any stimulus. It means that a learned response can be transferred to a new situation by associating it with a new stimulus.

For example, if a dog has learned to sit when hearing the word "sit," you can use associative shifting by pairing the word "sit" with a hand signal. Eventually, the dog will learn to sit with just the hand signal.

Some other Laws of Learning

1. Law of Primacy

The Law of Primacy suggests that the first experiences or impressions we have in any situation tend to be the most lasting and influential.

For example, a child's first day at school can greatly influence their attitude toward education. If the child is welcomed warmly by teachers, makes new friends, and finds the classroom environment engaging and supportive, they are more likely to have a positive outlook on school and learning in general.

2. Law of Intensity

The Law of Intensity states that experiences that are more vivid, emotional, or impactful are more likely to be remembered than less intense experiences.

For example, if someone attends a concert of their favorite band, the excitement, loud music, and vibrant atmosphere make the experience very intense. Years later, they can vividly recall the songs played, the feeling of the crowd, and specific moments from the concert.

3. Law of Recency

The Law of Recency states that information or experiences that are more recent are easier to remember than those that happened a long time ago.

For example, a student who studies a chapter right before an exam is more likely to remember the details of that chapter compared to a chapter studied weeks earlier.

4. Law of Partial Activity

This Law suggests that sometimes, only a part of a situation or stimulus is needed to evoke a response or reaction that is typically associated with the entire situation.

For example, many people wake up naturally a few minutes before their alarm clock rings. The anticipation of the alarm (partial stimulus) can be enough to wake them up fully, even if the actual sound of the alarm (whole stimulus) hasn't occurred yet.

5. Law of Freedom

The Law of Freedom states that individuals learn more effectively when they are able to learn at their own pace without undue pressure or constraints.

For example, allowing students the freedom to manage their own time reduces pressure and accommodates different learning styles, leading to better engagement and higher-quality work.

6. Law of Requirement

This law states that learners need a goal or purpose to motivate their learning. It could be a skill, ability, instrument, or anything that facilitates learning and acquiring something.

For example, a person planning to travel to a foreign country might start learning the local language.

7. Law of Contiguity

The Law of Contiguity states that when two events or stimuli occur close together in time or space, they are likely to become associated in our minds. This principle helps us understand how we form connections between different pieces of information or experiences. If two things consistently happen together, our brains link them, making it easier to remember or anticipate one when encountering the other.

For example, In language learning, a teacher might show a picture of an apple while saying the word "apple." If this happens repeatedly, students will begin to associate the image of the apple with the word "apple." Later, when they see an apple, they will recall the word, and vice versa.

1. Which of the following does not come under primary laws of learning ? (**UGC NET 22 Mar 2023 Evening**)

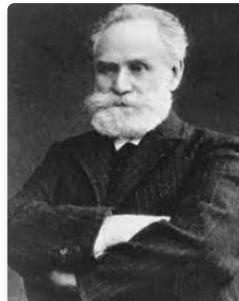
- Law of effect
- Law of Readiness
- Law of Multiple response
- Law of exercise

Check

Question: 1 of 3 questions

3. Classical Conditioning – Pavlov

Classical conditioning is a method of teaching behaviour through repetition. Ivan P Pavlov, a Russian physiologist who won a Nobel Prize in 1904, was the first person to describe this phenomenon and provide a general model.

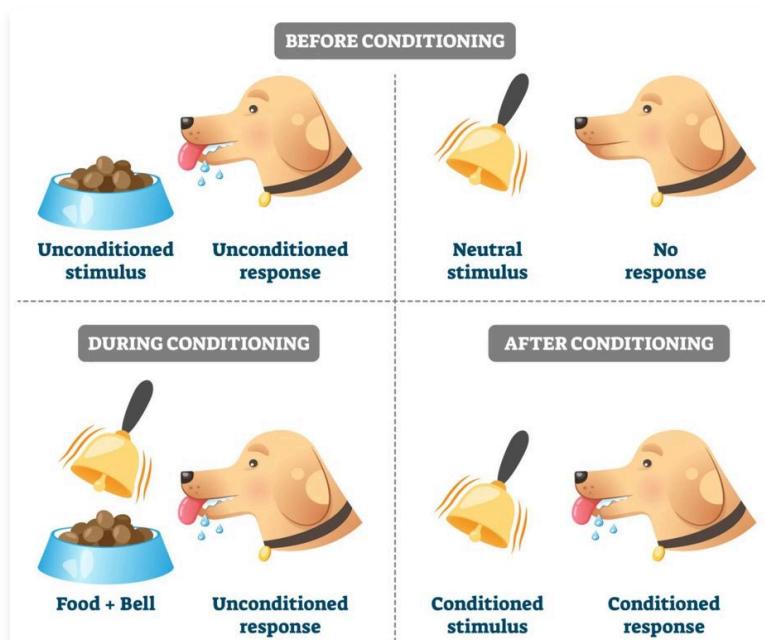


In Pavlov's experiment, he used a dog as a subject. The experiment was conducted in 3 stages.

In the first stage, Pavlov presented meat (designated as the Unconditional Stimulus, US) to the dog, resulting in a great deal of salivation (designated as the Unconditional Response, UR).

In the second stage, Pavlov only rang a bell (designated as the Neutral Stimulus, NS), and the dog did not salivate.

In the third stage, Pavlov rang the bell while also offering the meat to the dog.



After repeated trials, Pavlov rang the bell without offering the meat, and the dog still salivated (designated as the Conditional Response, CR). This shows that the dog became classically conditioned to salivate to the sound of the bell (designated as the Conditional Stimulus, CS). Classical conditioning takes place based on the Stimulus – Response (S-R) connections.

It is also called Pavlovian conditioning.

Persistence and Extinction of Conditioning

After Pavlov had demonstrated that learning could occur through association, Pavlov moved on to study the variables that influenced the strength and the persistence of conditioning.

- > **Extinction**
- > **Spontaneous Recovery**
- > **Generalization**
- > **Discrimination**
- > **Second-Order Conditioning**

1. The stimulus which does not require any conditioning for desired behaviour is called as (**UGC NET 28 Mar 202 Morning**)

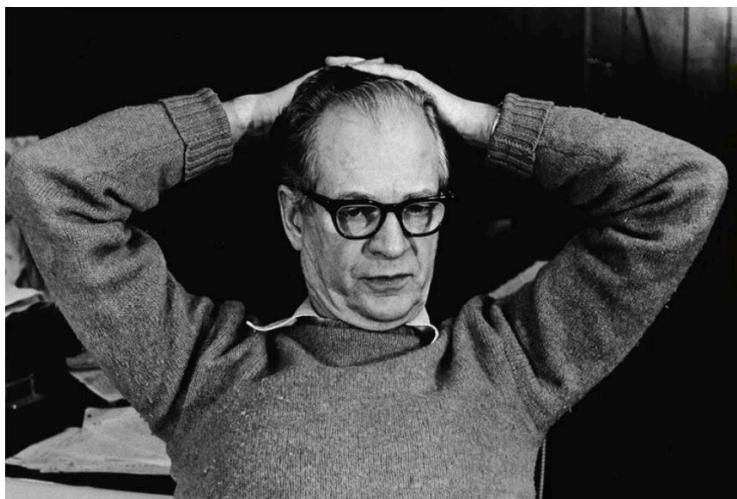
- Unconditional stimulus
- Conditioned stimulus
- Unconditioned response
- Conditioned response

Check

Question: 1 of 3 questions

4. Operant Conditioning - B. F. Skinner

Operant conditioning is a method developed by American psychologist B.F. Skinner, also known as Instrumental conditioning because organisms use certain operations or actions to find a solution.



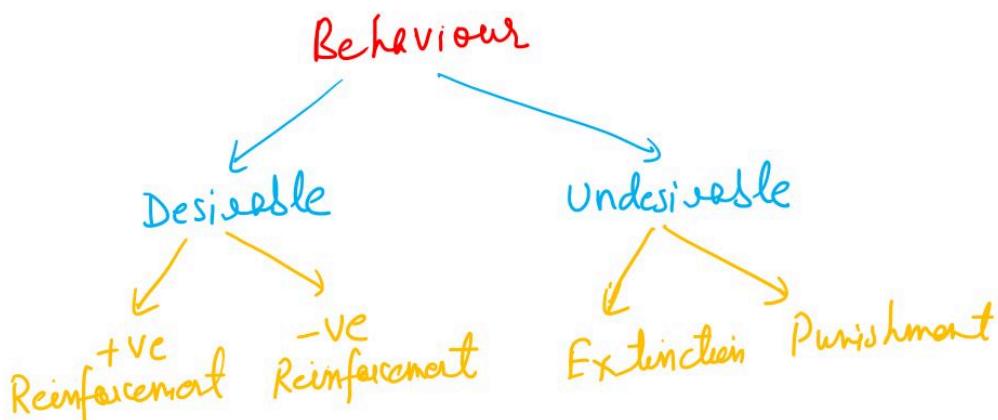
This method of conditioning focuses on the Response—Stimulus (R-S) connection. According to Skinner, organisms tend to repeat responses that are followed by favourable consequences, and avoid repeating responses that are followed by neutral or unfavourable consequences. For example, an individual might work hard (the response) because they know they will receive a promotion (the stimulus) (R-S connection).

According to the theory, behavior can be classified as *desirable* or *undesirable*.

- > Desirable behavior
- > Undesirable behavior

Avoidance is a type of behavior that occurs when an individual engages in an action to avoid a negative consequence. For example, an employee who is afraid of being fired might work extra hard to avoid being let go.

Behavior modification is the process of using reinforcement and punishment to change behavior. This may involve using positive reinforcement to encourage desirable behaviors or punishment to discourage undesirable behaviors. The goal of behavior modification is to improve performance and achieve specific objectives.



The schedules of reinforcement refer to the pattern in which reinforcement is delivered following a behavior. Here are brief explanations of the different types of schedules with examples:

1. *Continuous reinforcement*: In this schedule, every instance of the desired behavior is immediately followed by reinforcement. For example, if an employee receives a bonus every time they complete a task, this would be an example of continuous reinforcement.
2. *Fixed ratio*: In this schedule, reinforcement is given after a specific number of instances of the desired behavior. For example, an employee might receive a bonus for every 10 tasks they complete, representing a fixed ratio schedule of reinforcement.
3. *Variable ratio*: In this schedule, the number of instances of the desired behavior required for reinforcement is unpredictable. For example, a salesperson might receive a commission for every third sale they make, but the exact number of sales required for a commission is unpredictable, creating a variable ratio schedule of reinforcement.
4. *Fixed interval*: In this schedule, reinforcement is given at regular, predictable intervals of time. For example, an employee might receive a performance-based bonus every six months, representing a fixed interval schedule of reinforcement.
5. *Variable interval*: In this schedule, the intervals between reinforcement are unpredictable. For example, an employee might receive unexpected bonuses at random intervals, creating a variable interval schedule of reinforcement.

Teaching Machine

The teaching machine, which involves using machines to deliver educational content and provide feedback, has had a significant impact on education. It promotes student engagement by presenting individualized programs with questions, problems, and exercises. B. F. Skinner is often recognized as the inventor of the teaching machine.

Programmed instruction consists of a network of statements and tests, which direct the student to new statements depending on his pattern of errors. It is based on a particular tool which is called Teaching Machine.

1. _____ is a learning force which affects desired response more frequently by providing a reinforcing stimulus immediately following the response.

Operant Conditioning

Classical Conditioning

Stimulus Conditioning

None of the above

Check

Question: 1 of 4 questions

5. Cognitive Conditioning - Edward Tolman

Edward Tolman, a behaviorist, challenged the traditional Stimulus-Response theory and believed that behavior was mostly cognitive in nature.



He defined cognition as the thoughts, feelings, ideas, knowledge, and understanding that individuals have about themselves and their environment. Tolman believed that individuals develop a mental image, known as a cognitive map, through experiences and cues encountered in the environment.

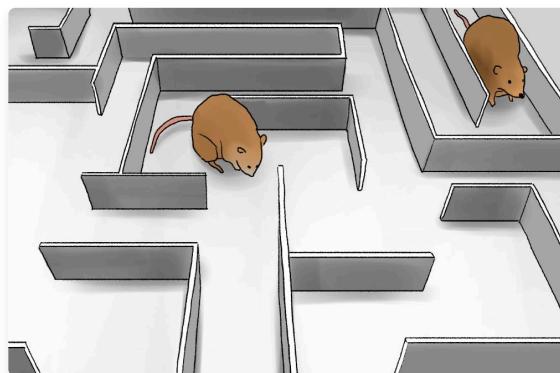
Edward Tolman studied the behaviour of three groups of rats that were learning to navigate through mazes.

The first group always received a reward of food at the end of the maze. The second group never received any reward, and the third group received a reward, but only beginning on the 11th day of the experimental period.



As you might expect when considering the principles of conditioning, the rats in the first group quickly learned to negotiate the maze, while the rats of the second group seemed to wander aimlessly through it. The rats in the third group, however, although they wandered aimlessly for the first 10 days, quickly learned to navigate to the end of the maze as soon as they received food on day 11. By the next day, the rats in the third group had caught up in their learning to the rats that had been rewarded from the beginning.

It was clear to Tolman that the rats that had been allowed to experience the maze, even without any reinforcement, had nevertheless learned something, and Tolman called this latent learning. **Latent learning** refers to learning that is not reinforced and not demonstrated until there is motivation to do so. Tolman argued that the rats had formed a "cognitive map" of the maze but did not demonstrate this knowledge until they received reinforcement.



Based on his cognitive learning theory, Tolman developed the *Sign Learning Theory*. This theory posits that learning is the acquisition of knowledge through meaningful behavior. Tolman viewed learning as a whole, purposeful, and goal-driven process, rather than just physiological responses. He demonstrated through animal experiments that learning does not require motivation and that rewards or punishments cannot initiate learning, but only motivate the performance of learned behavior.

Tolman believed that learning occurs as individuals follow signs or stimuli to reach a goal, rather than just having to reproduce certain behaviors.

Which of the following is said to occur without reinforcement of particular responses and seems to involve change ways information is processed? **(UGC NET 02 Mar 2023 Morning)**

Passive learning

Latent learning

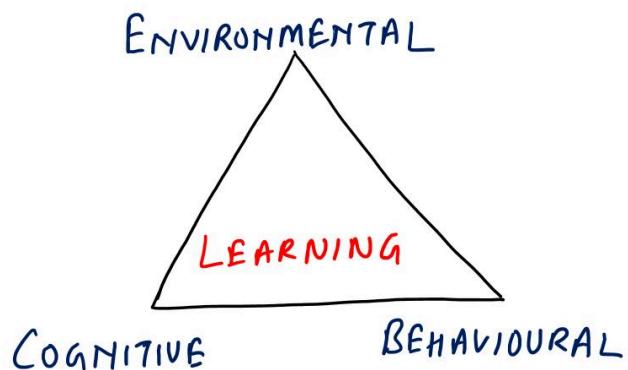
Active learning

Insight learning

Check

Question: 1 of 1 questions

6. Social Learning – Albert Bandura



SOCIAL LEARNING THEORY

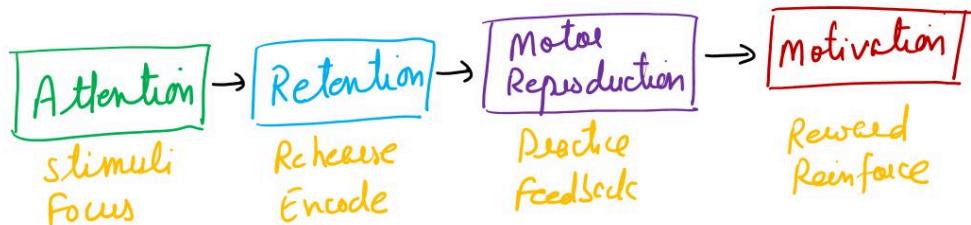
Albert Bandura is known for his Social Learning Theory. He is quite different from other learning theorists who look at learning as a direct result of conditioning, reinforcement, and punishment. Bandura asserts that most human behavior is learned through observation, imitation, and modeling.

He is renowned for his research on children's observational learning of aggressive behavior. He conducted experiments where children witnessed adults acting aggressively toward a doll, and subsequently, the children imitated these actions when given dolls to play with. Bandura went beyond mere observation, exploring "verbal" instructional models, where clear explanations and descriptions enhanced learning. This is akin to when someone patiently explains a concept, facilitating learning.

Furthermore, he delved into "symbolic" models, which included fictional and non-fictional characters in various media forms like movies, TV shows, online content, and books. This revealed that students could learn from these sources by observing how characters reacted and felt, subsequently applying these lessons to real-life situations. Bandura's work underscores the power of observation and instruction in shaping human behavior, extending beyond direct interactions to encompass a wide range of media and instructional methods.

Thus, the human behaviour and learning is determined by the relationship between cognitive factors, environmental factors, and behavior factors.

Bandura showed that observational learning can occur without the learner demonstrating any new behavior. In other words, you can observe, imitate, or model something but you might not learn it.



He explored the question of what needs to happen for an observable behavior to be learned (in addition to observation) and cited 4 necessary steps: attention, retention, reproduction, and motivation.

$$\text{Observation} + \text{4 Necessary Steps} = \text{Learning}$$

> 1. Attention

> 2. Retention

> 3. Reproduction

> 4. Motivation

1. Which theory and theorist are associated with learning through observation? (**UGC NET 21 Mar 2023 Morning**)

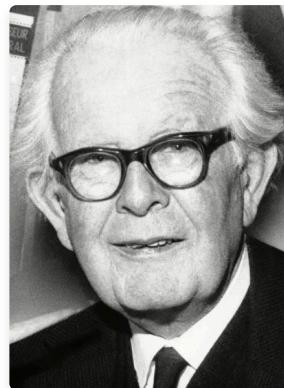
- Behaviourist theory, Skinner
- Constructivist theory, Piaget
- Social cognitive theory, Bandura
- Socio cultural theory, Vygotsky

Check

Question: 1 of 4 questions

7. Cognitive Development Theory – Piaget

Jean Piaget is famous for his theories regarding changes in cognitive development that occur as we move from infancy to adulthood.

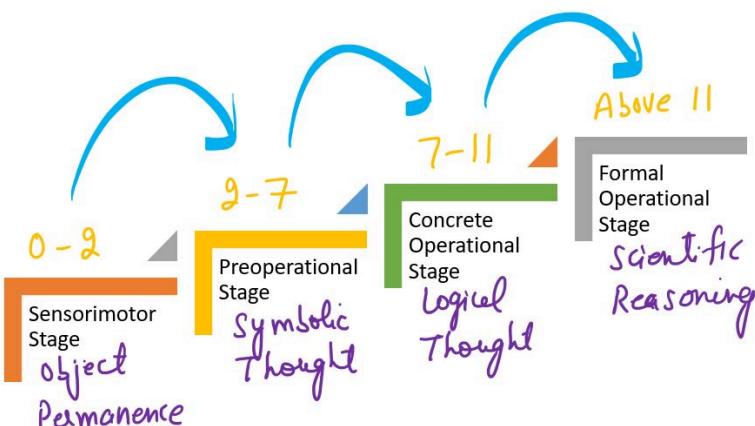


Cognitive development results from the interplay between innate capabilities (nature) and environmental influences (nurture).

Children progress through four distinct stages, each representing varying cognitive abilities and world comprehension: the sensorimotor stage (birth to 2 years), the preoperational stage (2 to 7 years), the concrete operational stage (7 to 11 years), and the formal operational stage (11 years and beyond).

A child's cognitive development is not just about acquiring knowledge, the child has to develop or construct a mental model of the world, which is referred to as a *schema*.

Piaget emphasized the role of active exploration and interaction with the environment in shaping cognitive development, highlighting the importance of assimilation and accommodation in constructing mental schemas.



- > **1. Sensorimotor Stage (Birth to 2 Years)**
- > **2. Preoperational Stage (2 – 7 Years)**
- > **3. Concrete Operational Stage (7 – 11 Years)**
- > **4. Formal Operational Stage (11 Years and above)**

1. Match List I with the List II: (UGC NET 01 Dec Morning 2021)

List I (Piaget's Stages of Cognitive Development)

- a. Sensorimotor
- b. Preoperational
- c. Concrete operational
- d. Formal operational

List II (Approximate age)

- i. Begins about the first grade to early adolescent, around 11 years old.
- ii. Adolescent to adulthood.
- iii. 0 - 2 years
- iv. Begins about the time the child starts talking to about 7 years old.

a- iv, b- i, c- ii, d- iii

a- iv, b- i, c- iii, d- ii

a- i, b- ii, c- iii, d- iv

a- i, b- ii, c- iii, d- iv

Check

Question: 1 of 5 questions

8. Theory of Multiple Intelligences – Dr. Howard Gardner

Howard Gardner first proposed the theory of multiple intelligences in his 1983 book "Frames of Mind", where he broadens the definition of intelligence and outlines several distinct types of intellectual competencies.

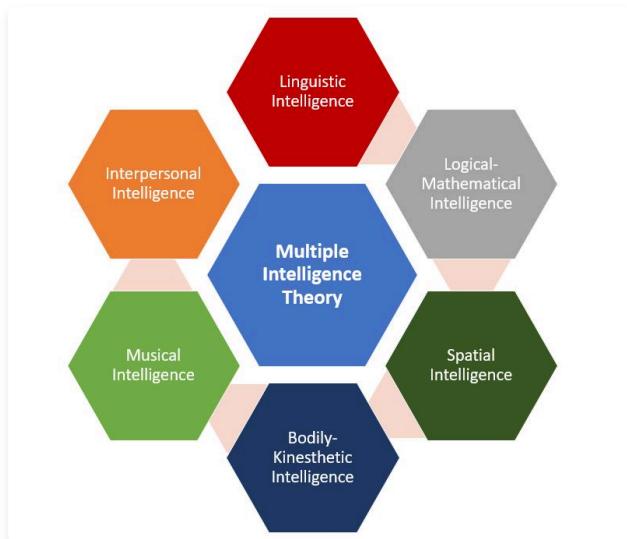


Gardner developed a series of 8 inclusion criteria while evaluating each "candidate" intelligence that was based on a variety of scientific disciplines.

Gardner defines intelligence as a "biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture."

The inclusion criteria to be categorized as a Multiple Intelligence are:

- Potential of isolation by brain damage.
- Evolutionary history and evolutionary plausibility.
- Identifiable core operations or set of operations.
- Susceptibility to encoding in a symbol system.
- Distinct developmental history and definable set of expert "end state" performances.
- Existence of savants, prodigies, and other exceptional people.
- Support from experimental psychological tasks.
- Support from psychometric findings.



- > **1. Linguistic Intelligence (Word Smart)**
- > **2. Logical-Mathematical Intelligence (Number/Reasoning Smart)**
- > **3. Spatial Intelligence (Picture Smart)**
- > **4. Bodily-Kinesthetic Intelligence (Body Smart)**
- > **5. Musical Intelligence (Music Smart)**
- > **6. Interpersonal Intelligence (People Smart)**
- > **7. Intrapersonal Intelligence (Self-Smart)**
- > **8. Naturalist Intelligence (Nature Smart)**

The most important educational implications of the theory of multiple intelligences can be summed up through individuation and pluralization. Individuation posits that because each person differs from other another there is no logical reason to teach and assess students identically. Pluralization, the idea that topics and skills should be taught in more than one way, activates individual's multiple intelligences. Presenting a variety of activities and approaches to learning helps reach all students and encourages them to be able to think about the subjects from various perspectives, deepening their knowledge of that topic.

Gardner also suggests that there may be other "candidate" intelligences—such as spiritual intelligence, existential intelligence, and moral intelligence—but does not believe these meet his original inclusion criteria.

1. According to the theory of multiple intelligences, the ability to perceive the visual and spatial world accurately, p which human ability? (**UGC NET 24 Dec Evening 2021**)

- Naturalist
- Interpersonal
- Intrapersonal
- Spatial

Check

Question: 1 of 3 questions

9. Social Constructivism Theory – Lev Vygotsky

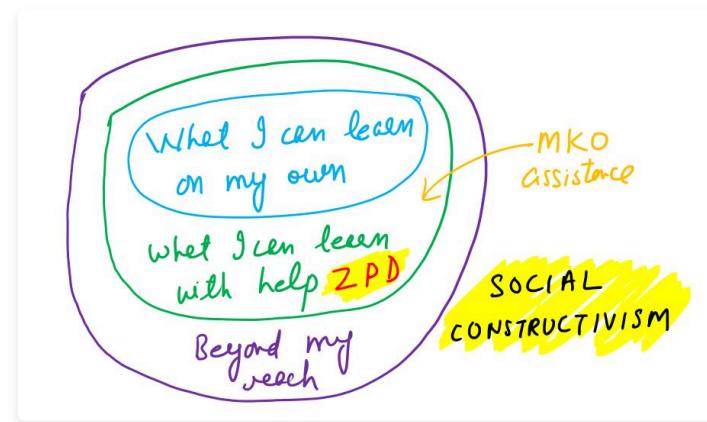
Lev Vygotsky's work, notably in sociocultural theory, has significantly influenced cognitive development studies. He proposed social constructivism, asserting that cognitive functions are shaped by social interactions within cultural contexts.



Vygotsky highlighted learning as a collaborative process rooted in social negotiation, rejecting the idea of isolating learning from its social context, unlike Piaget's stance.

Vygotsky claimed that infants are born with the basic abilities for intellectual development called elementary mental functions which include Attention, Sensation, Perception and Memory.

Two key principles in Vygotsky's theories are the **More Knowledgeable Other** (MKO) and the **Zone of Proximal Development** (ZPD).



The MKO, often an individual with superior knowledge or expertise, doesn't necessarily have to be an adult but could be a peer or even an electronic system. This person or system supports and guides learning by offering more knowledge on a subject.

The ZPD is the gap between what a learner can do independently and what they can achieve with guidance from a more skilled partner. Vygotsky emphasized the significance of social interaction in bridging this gap. He believed that collaborative efforts with others - adults or peers - enable children to reach their full potential by providing guidance and support. This zone marks the territory where optimal learning occurs because the tasks lie just beyond an individual's current capabilities, fostering maximum cognitive growth.

Social dialogues within the ZPD emphasize two critical aspects: intersubjectivity and scaffolding.

Intersubjectivity involves arriving at a shared understanding, adjusting perspectives, and sharing ideas.

Scaffolding involves initially direct instruction, gradually withdrawn as the learner gains mastery, thereby encouraging independent problem-solving skills.

Let us understand with an example.

In a classroom, a student named Saumya is working on a challenging science project. She is tasked with conducting a complex experiment that involves setting up intricate equipment and recording precise measurements. Saumya, however, finds herself struggling to grasp the experimental procedure, which is beyond her current knowledge.

The teacher serves as the More Knowledgeable Other (MKO) in this situation. He steps in to guide Saumya through the process, explaining the steps, demonstrating techniques, and providing clear instructions.

This collaborative effort between Saumya and the Teacher takes place within the Zone of Proximal Development (ZPD). Saumya can't complete the experiment entirely on her own, but with teacher's guidance, she can successfully carry out the project. As they work together, Saumya asks questions, seeks clarification, and shares her observations, creating a shared understanding (intersubjectivity) of the experiment's intricacies.

Scaffolding comes into play as the teacher tailors her support to Saumya's needs. At the beginning, he is quite involved, but as Saumya gains confidence and understanding, the teacher gradually steps back, allowing Saumya to take more responsibility for the experiment. This gradual reduction of support empowers Saumya to develop problem-solving skills and scientific expertise.

Over time, as Saumya works on similar experiments and projects, she internalizes the knowledge and techniques she acquired through this collaborative experience. The ZPD, guided by the teacher's expertise, has facilitated Saumya's growth and development, equipping her to tackle more advanced scientific challenges independently.

1. The theory Zone of Proximal Development was proposed by: (**UGC NET 04 Jan 2022 Evening**)

Piaget

Freud

Vygotsky

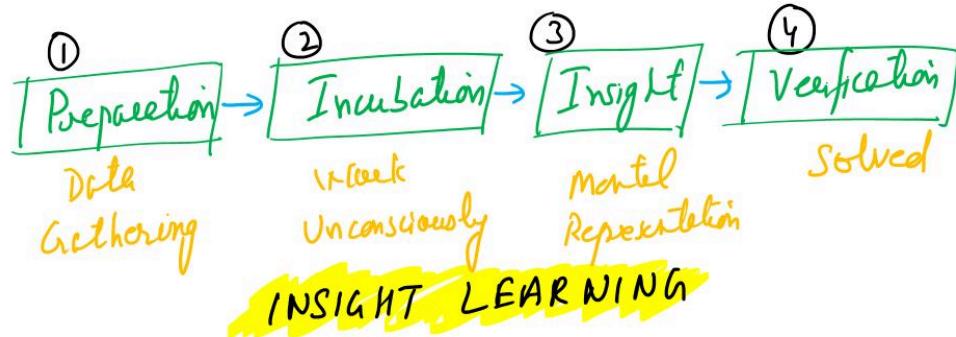
Bloom

Check

Question: 1 of 6 questions

10. Insight Learning – Kohler

Insight learning, as observed by Wolfgang Köhler through his famous experiments with chimpanzees, involves the sudden realization of a solution to a problem without the need for trial and error. Köhler's chimp, Sultan, struggled to reach a banana outside his cage until he spontaneously connected two sticks, creating a tool to obtain the fruit. This "a-ha" moment prompted psychologists to delve deeper into the insight process.



The four-stage model of insight learning includes:

1. *Preparation*: frustration while attempting to solve a problem,
2. *Incubation*: unconscious problem-solving even after temporarily giving up,
3. *Insight*: the sudden "Eureka!" moment when connections are made, and
4. *Verification*: testing and confirming the solution.

Insight learning examples include instances where solutions appear suddenly, bypassing trial-and-error methods, leading to a better understanding and future problem-solving abilities.

Consider a writer facing a creative block while developing a plot. In the Preparation stage, they struggle to link story elements, feeling stuck. Taking a break (Incubation), the writer engages in a mundane task, and suddenly, in a moment of Insight, a brilliant idea strikes, connecting the plot threads seamlessly. Returning to their writing, they apply the new storyline (Verification), which revitalizes the narrative. This "aha" moment not only solves the immediate writing challenge but also enhances the writer's ability to craft intricate plots in the future.

Based on the theory of 'Insight Learning' as given by Wolfgang Kohler, identify which of the following statements i

- Learning and teaching should be in total and not in part.
- The learner should be motivated by arousing the interest and curiosity to well acquaint with the specific aims and purposes learning process.
- The teacher should adhere to inter-disciplinary approach in teaching.
- All of the above

Check

Question: 1 of 1 questions

11. Constructivist Theory - Bruner

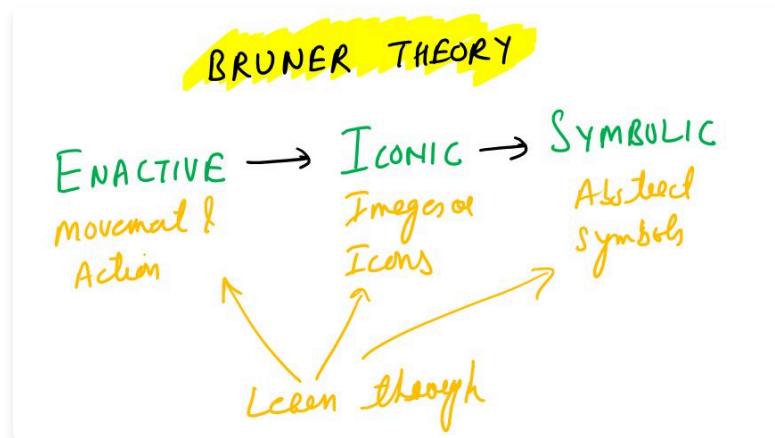
Jerome Bruner, heavily influenced by Vygotsky's ideas, proposed a theory of active and interactive learning, emphasizing that children learn best when given opportunities to learn.



He contradicted Piaget's belief that learning was tied to maturity, asserting that all children have the capacity to learn similarly, rejecting the idea of specific developmental milestones.

Bruner's theory is centered on 3 modes of learning:

1. *Enactive mode*, where learning occurs through actions and rehearsal of observed actions.
2. *Iconic mode*, involving the retention of images in memory.
3. *Symbolic mode*, which deals with the storage of information in symbolic forms like letters, numbers, or words, allowing for flexibility and manipulation.



According to Bruner, children progress through these modes step by step, starting with action-based learning and gradually moving towards memory of scenes and then symbolic representations. His theory emphasizes the importance of facilitating learning opportunities for children rather than relying solely on teaching methodologies, highlighting the significance of discovery in the learning process.

Let's use an example to explain Jerome Bruner's modes of learning.

Imagine a child learning to play a musical instrument, like the piano. Initially, they observe and mimic the actions of a skilled pianist (enactive mode). As they practice, they begin to form mental images of playing specific tunes and chords (iconic mode). Eventually, they grasp the symbolic representations of musical notes and sheet music, allowing them to read and play complex compositions (symbolic mode). This progression aligns with Bruner's theory, emphasizing the stepwise nature of learning, from action-based to mental imagery and symbolic understanding.

1. Arrange the five Phases of "Constructivist Learning Approach" in a Sequence. (**UGC NET 06 Mar 2023 Evenin**

- A. Explore
- B. Elaborate
- C. Evaluate
- D. Explain
- E. Engage

A, B, E, D, C

D, A, B, E, C

C, D, A, E, B

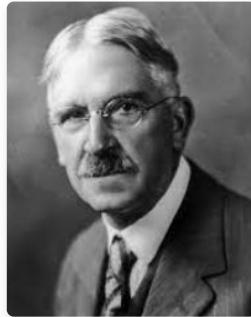
E, A, D, B, C

Check

Question: 1 of 2 questions

12. Pragmatism – John Dewey

John Dewey, a significant figure in educational reform, introduced groundbreaking ideas that revolutionized educational philosophy. His concept of instrumentalism emphasized learning by doing, diverging from traditional authoritarian teaching and rote memorization.



He believed in a hands-on approach to education, emphasizing the cultivation of skills through practical experiences rather than passive absorption of information.

The hallmark of Dewey's philosophy was pragmatism, which shaped his view on the purpose of education. He advocated for the dynamic development of individuals rather than conformity to established knowledge. He had an experimental approach to education.

Dewey rejected the conventional rote-learning approach and disapproved of strictly child-centered methods. Instead, he proposed integrating traditional subjects with learners' interests and strengths. He introduced the concept of inquiry-based learning, asserting that learning is a cycle involving doubt, inquiry, reflection, and the reconstruction of understanding. He viewed the learning process as a continuous, organic cycle, contrasting the mechanical models prevalent in his time.

Another pivotal aspect of Dewey's theory was his emphasis on democratic values. He believed that education played a crucial role in shaping skills necessary for active participation in a democratic society. He stressed the importance of recognizing and appreciating differences, advocating for open-mindedness to expand experiences and encourage critical thinking among students.

According to Dewey, education is a: (**UGC NET 09 July 2022 Morning**)

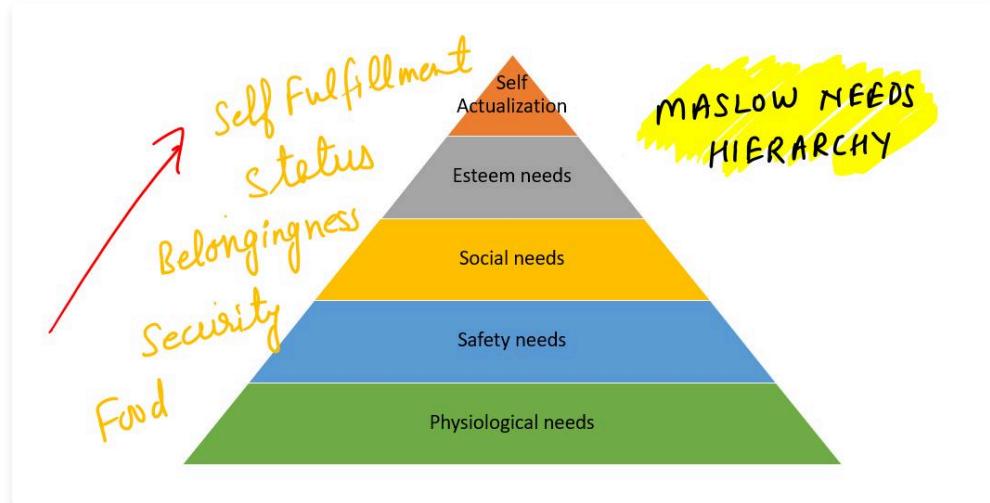
- Social need
- Personal need
- Status need
- Financial need

Check

Question: 1 of 1 questions

13. Hierarchy of Needs – Abraham Maslow

Abraham Maslow's Hierarchy of Needs is a widely recognized theory of motivation that suggests that within every individual, there is a hierarchy of five different needs that influence their behavior.



These 5 needs are listed as follows:

- > **1. Physiological**
- > **2. Safety**
- > **3. Social**
- > **4. Esteem**
- > **5. Self-actualization**

Maslow separated the five needs into higher and lower orders.

- Physiological and safety needs are described as lower-order.
- Social, esteem, and self-actualization are as higher-order needs.
- Higher-order needs are satisfied internally.
- Lower-order needs are predominantly satisfied externally.

Abraham Maslow's Hierarchy of Needs is relevant in education as it helps educators understand and address students' diverse motivations and behaviors. It encourages individualized learning by recognizing that students have different needs at various levels of the hierarchy.

1. Which of the following 'need strengths' in Maslow's hierarchy are related to higher order learning? (**UGC NET 1 2020 Morning**)

- i. Physiological needs
- ii. Safety needs
- iii. Social needs
- iv. Esteem needs
- v. Needs for self actualisation

i and ii only

ii and iii only

iii and iv only

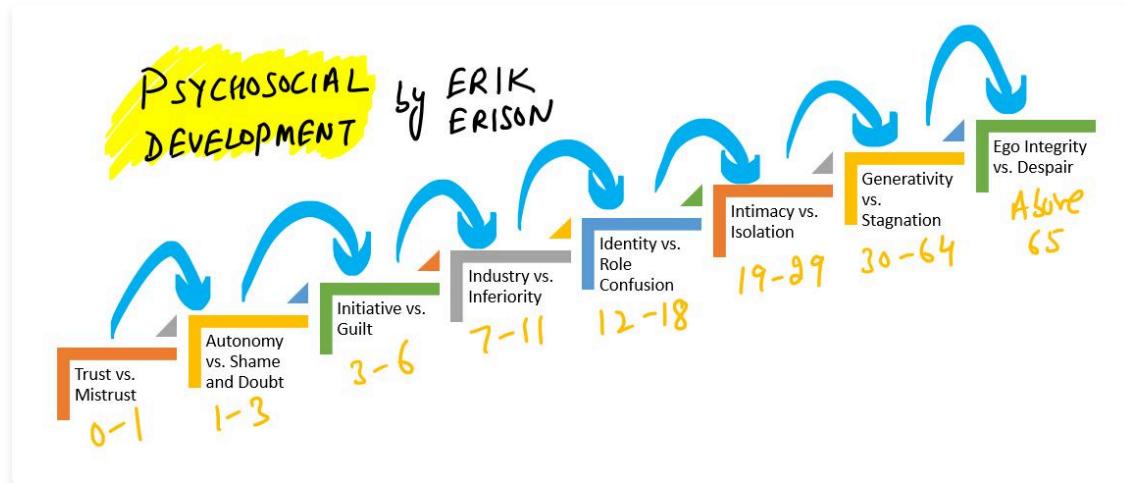
iv and v only

Check

Question: 1 of 2 questions

14. Psychosocial Development – Erik Erikson

Erik Erikson's psychosocial theory outlines 8 developmental stages that span from infancy to late adulthood, delineating the challenges individuals face at each phase. The stages are characterized by specific psychosocial crises that influence personality and emotional growth. The successful resolution of these crises during each stage leads to the acquisition of essential virtues, contributing to the formation of a healthy and well-rounded personality.



- > 1. Trust vs. Mistrust (Infancy)
- > 2. Autonomy vs. Shame and Doubt (Toddlerhood)
- > 3. Initiative vs. Guilt (Preschool)
- > 4. Industry vs. Inferiority (School-Age)
- > 5. Identity vs. Role Confusion (Adolescence)
- > 6. Intimacy vs. Isolation (Early Adulthood)
- > 7. Generativity vs. Stagnation (Middle Adulthood)
- > 8. Ego Integrity vs. Despair (Late Adulthood)

1. Match List I with the List II: (UGC NET 28 Nov Morning 2021)

List I (Erik's stages of Psychosocial Development)

- a. Basic trust versus Basic mistrust
- b. Initiative versus Guilt
- c. Intimacy versus Isolation
- d. Ego integrity versus Despair

List II (Approximate Age)

- i. Young adulthood
- ii. Late adulthood
- iii. 3-6 years
- iv. Birth to 12-18 months

a- iv, b- iii, c- i, d- ii

a- iii, b- i, c- ii, d- iv

a- i, b- ii, c- iv, d- iii

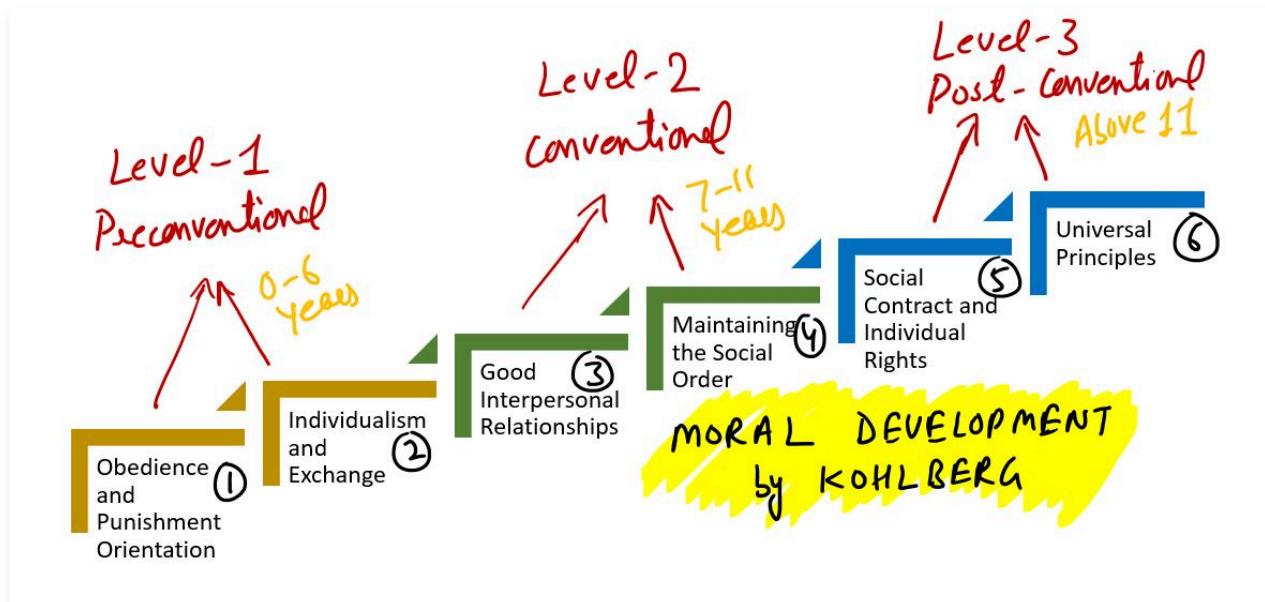
a- ii, b- iv, c- iii, d- i

Check

Question: 1 of 3 questions

15. Moral Development – Kohlberg

Moral development refers to the process whereby people form a progressive sense of what is right and wrong, proper and improper. As implied by the term development, human moral sense is commonly seen to involve a movement from simple and finite definitions of right and wrong to more complex ways of distinguishing right from wrong.



Kohlberg identified 3 distinct levels of moral reasoning each with 2 sub-stages. People can only pass through these levels in the order listed. Each new stage replaces the reasoning typical of the earlier stage. Not everyone achieves all the stages.

- > **Level 1 - Pre-conventional morality**
- > **Level 2 - Conventional morality**
- > **Level 3 - Post-conventional morality**

1. Which aspect indicates to be the most relevant in decision making process according to Kohlberg's theory of moral development? (UGC NET 14 Oct 2022 Evening)

- The age of the Child
- Knowledge of Law
- Influence of friends and Siblings
- How the child arrives at Conclusion

Check

Question: 1 of 2 questions

1. Introduction

The teaching-learning process aims to provide learners with diverse learning experiences aligned with the curriculum. To achieve this, teachers employ instructional strategies that include setting objectives, selecting methods and materials, organizing activities, and assessing learning. Instructional methods can be categorized as either teacher-centered or learner-centered.

Teacher centred approaches are more traditional in nature, focussing on the teacher as instructor. They are sometimes referred to as direct instruction, deductive teaching or expository teaching, and are typified by the lecture type presentation. In these methods of teaching, the teacher controls what is to be taught and how students are presented with the information that they are to learn.

Learner centred approaches (sometimes referred to as discovery learning, inductive learning, or inquiry learning) place a much stronger emphasis on the learner's role in the learning process. When using learner-centred approaches to teaching, the teacher still set the learning agenda but he or she has much less direct control over what and how students learn.

1. While delivering a lecture, these is disturbance created by students in class. Which of the following measures s taken by a teacher? **(UGC NET 22 Oct 2022 Morning)**

- Punish those causing disturbance
- Ignore and continue
- Leave the class and report to Head of the institution
- Talk to the students causing disturbance and motivate them for learning

Check

Question: 1 of 5 questions

2. Teacher centered Methods

Teacher-centered methods are based on essentialism and perennialism, emphasizing the transmission of essential knowledge and timeless ideas by the teacher. This approach involves teachers directing the learning process and students passively receiving information through various means. In this approach, the students are viewed as "empty vessels" whose primary role is to passively receive information with an end goal of testing and assessment. The teacher is looked upon by the learners as an expert or an authority.

In this approach, development of curriculum and control of the learning process is retained by the teacher. The teacher's role is to create an environment which stimulates the desired behavior and discourages behaviors that are believed to be undesirable. In other words, teachers control the learning situation to obtain the desired outcome, guided by generalized characteristics of the learners.

Characteristics of Teacher-centered Methods

The major characteristics of the teacher-centered methods are as follows:

- The teacher is the center of knowledge and in charge of learning;
- Students are usually passively receiving information;
- The instructor's role is to be primary information giver and primary evaluator;
- Teachers and professors act as the sole supplier of knowledge, and under the direct instruction model, teachers often utilize systematic, scripted lesson plans;
- Teacher centered instruction is fairly low-tech, often relying on the use of textbooks and workbooks instead of computers; and assessments are in many cases only carried out as summative and not formative evaluations and they rarely address qualitative issues of the learner's progress.

Types of Teacher centered Methods

Some commonly used teacher centered methods are given below:

- > **Lecture**
- > **Lecture cum Demonstration**
- > **Questions-answer**
- > **Tutorial**
- > **Team Teaching**

1. Which of the following is a teacher-centered method? (**UGC NET 08 Oct 2022 Evening**)

- Problem solving
- Discussion method
- Inquiry approach
- Demonstration method

Check

Question: 1 of 5 questions

