



PSY402midterm000

Experimental psychology (Virtual University of Pakistan)

PSY402

Midterm by www.vujhelum.com

ABA Design :	ABA refers to a specific type of research design in which you have a baseline period (B), a treatment is introduced (A), followed by a period in which the treatment or variable is introduced and then removed so the behavior can be observed a second time (A). This way you can measure the behavior and once treatment is removed.
Abnormal :	Although the terms “normal” and “abnormal” can be argued at great length, psychology is defined as behavior that deviates from what is considered the “norm” and not conforming to the accepted social standards of anything that is not considered normal”. The reality is that we define all sorts of behavior as abnormal that people do, and say that this is the norm. Behavior that falls outside of this is considered abnormal. Abnormality is affected significantly by society and culture...what is abnormal in one country is normal in another country.
Absolute Threshold :	This is a term that many students have a difficult time understanding, but it's not as complicated as it sounds. That absolute threshold is the smallest intensity of a stimulus that has to be present for a person to detect it. To clear this up. Think of an electric burner on a stove. Imagine turning that burner on. At first, you won't feel much heat because it takes time for the burner to heat up. But at some point, you will feel the heat. In this meaning, there is some temperature that is just hot enough for you to notice it. This is the absolute threshold at which it is just hot enough for you to detect the presence of the heat.
Accommodation :	This term stemmed from the work of Jean Piaget and his work on cognitive development. It is the process of revising existing cognitive schemas, perceptions, and understanding so that they can make sense of some new information, you actually adjust information you already have to fit for this new information. This is related to assimilation.
Acquisition :	Acquisition refers to the initial stage of the learning or conditioning process. In this stage, the stimulus is introduced to the point where we can say the organism (person, animal, etc.) has "acquired" the response. The response is strengthened (reinforced) so that it is truly "learned". For example, if you are trying to condition a rat to ring a bell (i.e., trying to condition the rat to press the lever when and only when the bell rings), you can say the response is "acquired". You would say the response is strengthened when the rat is pressing the lever in only response to the bell to make sure the response is strengthened.
Action Potential :	Many people often think that the neural impulse (the firing of a neuron) is actually the action potential. It is really just one step in the entire sequence of steps that must occur for a neural impulse to be generated. It occurs in the Class Notes section of AlleyDog.com...go to the Biological Psychology section. The neural impulse, the neural membrane opens at one area and allows the positively charged ions to rush out. When this happens, the charge inside the neuron rises to approximately +40 mV. This is a brief moment, but long enough to create a domino effect. As action potentials happen over and over again, they carry the signal (the information) with it. The neural impulse is like a series of action potentials.
Active Listening :	Active listening comes from the theories of Carl Rogers' person-centered-therapy. The therapist listens to the client and reflects back what the client says. This helps the client to understand their own thoughts and feelings.

therapist) listening to a person and then responding to the person using techniques such as reflecting back what has been said in order to demonstrate empathy, show that he/she was listening and so on.

Addiction : Any time a person continues to exhibit harmful or obsessive behavior, we can say that they have an addiction, from gambling, to sex, to drugs and alcohol.

Adjustment : Adjustment may be defined as a process of altering behavior to reach a harmonious relationship with the environment. When we say they are in an “adjustment period” they typically mean they are going through a period of imbalance or acceptance with the environment, others, or themselves.

Applied Research : As opposed to basic research, applied research is the type of research which is conducted to solve practical problems, illnesses, develop therapies with the purpose of helping people, and other similar types of research.

Association : The term "association" has different meanings depending on whether you're viewing it from a cognitive perspective. From the cognitive perspective, an association is a bond or connection between two phenomena, whereby the occurrence of one tends to bring to mind the other. The simple association is the most common. For example, when you read the word “stop” did a word come to mind? (Maybe “red” or “halt”.) From the learning perspective, an association is the forming of a learned connection between a stimulus and a response. For a more comprehensive understanding of this, you should take a look at classical conditioning, response, conditioned stimulus, etc.

Basic Research : As opposed to applied research, basic research is conducted with the intent of increasing our understanding of theoretical truth and understanding (not specifically to solve practical problems). For example, if a researcher is studying cheating behavior may design a study examining whether students from divorced families cheat more than students from non-divorced families. Notice that the research is not done to reduce cheating, help people, or anything like that. It's just to increase the understanding of cheating behavior.

Behavior Modification : A type of behavioral therapy in which the principles of Operant Conditioning (reinforcement) are used to change some type of unwanted, maladaptive, behavior. For example, a person may feel that they have a problem with smoking (behavior) and so the person is given a favorite piece of candy every time a cigarette is smoked. If the person smokes a cigarette but does not have one, they get a piece of their favorite candy as a reward.

Cause and Effect : Cause and effect is the panacea for researchers. It is a term you’ve likely heard many times in the context of study psychology. Psychologists look to identify the “effect” one variable has on other variables to change. Establishing cause and effect is not easy and requires research using the scientific method, but also classify as “true experiments” (studies that include random assignment and manipulation of an independent variable). For example, can a psychologist truly say that smoking causes cancer? An experiment on the effects of smoking...can you randomly assign participants to smoke or not smoke for a period of time and then measure the growth of cancer? You could, but it would be unethical. To study a cause and effect relationship...you can establish that one variable (smoking) influences another (cancer), but you really can’t establish cause and effect.

Circadian Rhythms : Circadian rhythms are what people often refer to as your body's internal, biological clock. It's a cycle on a cycle of approximately 24 hours. However, the clock is not really functioning on a 24-hour cycle. Your body temperature fluctuates on somewhat of a regular type of schedule, and so many people

study (a sample) that is representative enough that the results can be extended to lots of

- Extinction :** Extinction is from conditioning and refers to the reduction of some response that the organism has learned. In classical conditioning this results from the unconditioned stimulus NOT occurring after the conditioned stimulus. In operant conditioning it results from some response by the organism no longer being reinforced. (Example: a dog to sit on command, but you stop giving it a treat or any other type of reinforcement to give the command).
- Fovea :** The fovea is the central focal point on the retina in the eye around which the cones are concentrated. These cones are better for detecting fine detail. So, when trying to really see some fine detail, you focus the image onto the fovea (although they may be unaware that this is what they are doing, they are seeing much better).
- Frequency :** Frequency is the number of complete wavelengths (also known as cycles) that occur within a given time period. It means it occurs more rapidly or often and is also considered shorter. Frequency is used to describe light waves, sound waves, and brain waves.
- Gender :** Definitions of masculinity and femininity that are determined by one's culture. Therefore, definitions vary across countries, societies, and subcultures. Together, all of these socially defined characteristics make up masculinity and femininity. An example of gender: A tribe in New Guinea may define masculinity as a man who has killed, while in America some might define masculinity according to how much weight one can lift. (Note: as small, weak, and poor people, we here at AlleyDog.com do not fit the definition of masculinity in either culture).
- Genotype :** The total set of genes contained within an organism's cells. Organisms contain some genes that are "expressed" to mean that the gene is active or being used) and some that are not expressed. The expressed genes are considered the genotype.
- Habituation :** As humans, we get used to things. Something that is new and incredibly exciting can become boring. Our responsiveness to something is habituation (you might also hear someone say that they are "used to" something). There may be a painting or picture you really like so you put it on the wall in your room. Over time and repeated exposures to this picture you might start feeling like you've "seen it before" and it has the same effect on you that it used to. This is habituation.
- Hypothesis :** A testable prediction about the relationship between at least two events, characteristics, or variables. When planning theories; when planning an experiment, a researcher finds out about as much previous work as possible. If you know all of the previous work, the researcher can develop a theory about the topic of study and make a prediction. He/she is planning. It is important to note that hypotheses should be as specific as possible. The more vague your hypotheses, the more vague your conclusions. For example, if I am testing the effect of drugs on pain relief, it would be bad to hypothesize that "one drug will have an effect on pain relief." Can you test to find out if that is true? A better hypothesis might be, "Drug A (whatever) will have a greater effect on pain significantly more than Drug B according to participants' ratings of pain using the visual analog scale."
- Iconic Memory :** Humans remember sounds and words in slightly different ways. Memory for visual stimuli is called iconic memory. It can be defined as very brief sensory memory of some visual stimuli, that occur in the form of a picture. For example, look at a picture and then close your eyes and try to see the picture, what you can "see" in your mind's eye is the image in the picture. Typically, iconic memories are stored for slightly shorter periods of time than auditory memories.

memories). Please be aware that both echoic and iconic memories are sensory memories that are very temporary and fade quickly.

Id : According to Freud, humans have three main components to their personality that make up who we are. One of these components, the id, is the part that you may consider that little voice that does all those things that feel good, even if they are wrong. More specifically, the id is the part of all our inborn biological urges that seeks out immediate gratification (guided by the pleasure principle). For example, when you are in a bar and see a really attractive person, the id is what is pushing you to simply go over to this person, grab them, and ravage them. The ego is the completely unacceptable behavior so you don't do it, but the id doesn't care about that.

James-Lange Theory of Emotion : James-Lange Theory of Emotion was posed by both James and Lang at approximately the same time. It suggests emotions are a consequence of our physiological responses to external stimuli. So, some external stimulus produces a physiological response and you identify the emotion you are experiencing based on the physical response. For example, you are in the woods, and you begin to tremble. You then identify the fact that you are trembling, therefore I am afraid."

Just Noticeable Difference : The Just Noticeable Difference (JND), also known as the difference threshold, is the smallest change in a stimulus that can be detected 50 percent of the time. For example, let's say I asked you to put your hand on a scale and then I added tiny amounts of sand to your hand and ask you to tell me when you notice any change. The smallest amount of sand that you can detect is the just noticeable difference. If I added any change in the weight, that difference between the weight of the sand before I added it and after I added it, is the just noticeable difference.

Kinesthesia (Kinesthetic Sense) : Imagine this...you drive into a parking lot, get out of the car, and start to walk toward a bunch of parked cars and notice that some of them are close together, so when you go in order to get through the tight spaces. The reason you are able to sense whether you are close to the cars and adjust your body position, etc., is because you have kinesthetic sense, or an ability to sense the position of your muscles, tendons, and joints.

Latency : Latency is the fourth stage in Freud's Psychosexual theory of development, and it occurs during the latency stage, a child's sexual impulses are repressed. The reason for this is that during this stage, the child resolves the Oedipus or Electra Complex which are such traumatic events that the child's sexual impulses are repressed. Interestingly, because this stage contains little or no psychosexual development, Freud

Lens : The human eye is made of several layers and components. Behind the cornea, iris, and lens, which actually changes shape as you try to focus on something. When you try to focus on something (accommodation) and then focuses the incoming light onto the back of the eye (the retina), which is then processed by the brain.

Long-Term Memory : The term long-term memory refers to the unlimited capacity memory store that can hold information for lengthy periods of time. We mean that it is possible for memories in LTM to be stored for a long time. There are three types of memories that can be stored in LTM: procedural memory, semantic memory, and episodic memory.

Memory : A cognitive system that retains information. Similar to a computer's ability to retain information.

information such as your mother's name or first day of college. You would be unable to have it stored in your memory. There are many components to memory including sensory memory, forgetting, and more.

Mental Set :	Many people approach problems in similar ways all the time even though they can't be sure that will even work. Doing this is an example of mental set -- a tendency to approach a problem in the past. For example, a child may enter a store by pushing a door open. Every time they see the door expecting it to open even though many doors only open by pulling. This child is stuck in a mental set.
Negative Reinforcement :	With negative reinforcement the occurrence of a behavior is increased by removing a stimulus to avoid being spanked when it sits in response to your command. If the dog has been given a treat (removal of unpleasant stimulus) so the frequency of the behavior will increase. Punishment--just remember that with reinforcement you increase the occurrence of a behavior.
Norms :	Norms are the unwritten but understood rules of a society or culture for the behaviors that are acceptable. For example, in some countries it is the norm to put large piercings through the face as decoration for a group. This same behavior might be considered unacceptable in another place. Thus it is a norm.
Object Permanence :	A developmental term that refers to a child's ability to understand that objects still exist even if they are out of sight. Children 18 months old or younger tend not to have this ability. It is not until they become more than 18 months old that they search for an object even though it has been hidden from view.
Objective Tests :	Inventories which assess your personality or various abilities in an unbiased manner. They are based on a person's intuition.
Operant Conditioning :	Operant Conditioning is a type of learning in which a behavior is strengthened (more likely to happen) when followed by reinforcement, and weakened (will happen less frequently) when followed by punishment. It is based on a simple premise - that behavior is influenced by the consequences that follow. When you are rewarded, you are more likely to do it again. When you are punished for doing something, you are less likely to do it again. For more about operant conditioning, take a look at the B.F. Skinner Foundation located at: http://www.bfskinner.org/
Operational Definition :	A statement of the procedures or ways in which a researcher is going to measure a behavior. For example, if you wanted to measure and define "life change". You could do this by giving people a questionnaire. You could operationally define "life change" as the score on the social readjustment rating scale.
Perception :	The process in which we understand sensory information. Illusions are powerful examples of how we can see and perceive information incorrectly.
Perceptual Constancy :	Perceptual constancy is the ability to recognize that an object or organism has not changed even though other stimuli have changed. For example, when you go to a school reunion you recognize your friends from your class even though their physical characteristics may have changed such as height, weight, etc.
Personality :	Personality is a person's unique behavioral and cognitive patterns; OR, a person's unique way of thinking and acting. For example, some people's personality tends to be shy and introspective while others are outgoing. Because personalities, by definition, are stable patterns which cannot be changed easily.

personality theorists and social psychologists about the actual impact of personality on someone is shy, does that mean that they will virtually never act in an outgoing manner?

Phi Phenomenon : Ah Christmas, such a warm, family-oriented, wonderful time. And a time of visual illusion. The phi phenomenon is a phenomenon in which lights next to each other blinking on and off in succession appear to "run" even though you know it's just one light turning on and off down the line.

Pupil : The opening in your eye that allows light to enter. The light then hits your neural retina, creating impulses which can be interpreted by your brain (mainly, the occipital lobe).

Qualitative Data : Qualitative data focuses primarily on the meanings of and distinctions between things. For example, "nice". These are data that are not readily manipulated or represented numerically.

Quantitative Data : Quantitative data are more numerical type of data that can be manipulated and presented. For example, "obtained when you conduct experimental research."

Reaction Formation : A defense mechanism where an individual acts in a manner opposite from his or her true feelings. For example, a gay hate group would be an example of reaction formation. Freud believed that defense mechanisms protect around us by letting us repress our deepest unconscious fears.

Reconditioning : In classical conditioning, an unconditional stimulus (i.e., canned food) is paired with an unconditioned response (opener). If the electric can opener were no longer followed by the food, the link between the electric can opener and the link would become extinct. If the electric can opener were again followed by the canned food, and the link would be reconditioned. Reconditioning takes less time to pair the unconditional stimulus than the initial conditioning.

Reinforcement : Reinforcement is a process that increases the frequency of a targeted behavior by either presenting a positive stimulus or removing a negative stimulus. An electrical shock (negative stimulus) can make a human jump (targeted behavior) just as a reward of \$100 (positive stimulus) can make a human jump (targeted behavior) just as much. In this example, electrical shock and money are both reinforcers. As reinforcers, both increase the probability that the behavior (in this case, jumping) will occur most.

Reliability : Reliability refers to the extent to which a test or other instrument is consistent in its measurements. A scale judged reliable if measures for a 25-pound weight do not vary over time or change. Reliability is an important concept in science. If a test is not reliable, we cannot find the answers to our questions. For example, on a scale and getting a different answer every time. What purpose would the scale serve if it did not indeed the scale is measuring weight or something entirely different. Unreliability would make the scale useless because they are not reliable.

Sample : When conducting research there are lots of factors to consider. Psychologists may want to test on all college students in the world (which would be considered the "population"), but they do is test a smaller group of college students, known as a sample. In this example, the sample is the study (meaning, all college students) is part of the population. Thus, a sample is a subset of the entire population.

Schema : A schema is a cognitive system which helps us organize and make sense of information.

framework or developed a schema that all homeless people are rude. Because of this, we more readily look for information that supports this view while discarding information that exerts a great deal of influence over us and sometimes hinders us from remembering our cognitive framework.

Semantic Memory : Semantic memory is one of the three types of long-term memory (the others are episodic and procedural). It is a store of world knowledge like facts, ideas, words, problem solving, etc.

Sensation : Technically, sensation can be defined as the neural synaptic firing of our receptors and the subsequent processing of the signal. How about an example to make this a little more clear....when you touch something, the signal goes from the receptors in the cord and then into the brain for interpretation. Without both parts (the signal being sent and interpreted) are what we call sensation. (Note: nothing is done with the signal until interpretation is made use of and taken to the next stage, you have perception.)

Sensory Memory : The part of the memory system which is the initial contact for stimuli. Sensory memory is a very short period of time. This type of memory allows your eye to have a larger field of vision than what has already focused on. In actuality, your eyes' field of vision is quite small but because of sensory memory, the stimulus your eye has already viewed.

Sensory Neurons : You have a few different types of neurons in your body including interneurons, motor neurons, and sensory neurons. Sensory neurons are responsible for bringing information from sensory receptors (like the nerves in your skin, eyes, ears, nose, and brain). In other words, these neurons carry information about the senses, so they bring information from the outside world as from within the body like the stomach.

Shaping : This is a behavioral term that refers to gradually molding or training an organism to perform a desired response by reinforcing any responses that are similar to the desired response. For example, a rat is trained to press a lever during an experiment (since rats are not born with the instinct to press a lever). A researcher may reward the rat when it makes any movement at all in the direction of the lever to get rewarded. Then, it has to go over to the lever to get rewarded (reinforcing the earlier behaviors now...it must make a more advanced move by going over to the lever to produce reward. The rat's behavior was "shaped" to get it to press the lever.

Stimulants : Stimulants are drugs that arouse or excite the nervous system and speed up bodily processes (cigarettes), caffeine (coffee, tea, etc.), and cocaine. As you can see, there are both legal and illegal stimulants that affect the body and nervous system.

Systematic Desensitization : This is a form of treatment or therapy for phobias, fears, and aversions that people have. It involves exposing a person to the feared responses through counterconditioning - a person who learned to be afraid of something is exposed to the thing and the way to eliminate this is to teach the person to replace the feelings of anxiety with a feeling of relaxation. Behavior is present. This approach is based on conditioning relaxation with the feared response. For example, A) the fear - fear of dating women B) the client is asked to create a hierarchy of anxiety levels (from least to most fear producing). 1) sitting next to a woman in class (least) 2) talking to a woman on campus 3) calling a woman on the phone 4) eating a meal with a woman 5) going on a date with a woman. Then teaches the client some relaxation technique and then has the client use the technique while thinking about the first level (sitting next to a woman in class). Once the client is comfortable with the first level and so on until the client becomes relaxed and is able to go out on a date with a woman.

Transference :	Transference is a phenomenon where patients undergoing clinical therapy begin to transfer feelings from their past lives to the therapist. For example, the patient may begin to feel the same feelings toward their mother or her lover. These types of feelings may be positive or negative. The therapist must be able to use it to help the patient. For example, role playing with the patient.
Unconditional Positive Regard :	According to Carl Rogers, unconditional positive regard is when one person is completely accepting of another person just a show of acceptance, but is an attitude that is then demonstrated through behavior. In therapy to work, the therapist had to have this for the client.
Unconditioned Response :	In classical conditioning, there are stimuli that can produce responses all by themselves. These stimuli are called unconditioned stimuli (US or UCS) and they evoke unconditioned responses. These responses are completely natural and occur without an organism going through any prior learning. For example, the sour taste in your mouth and you may salivate. This may occur from the time you first tasted a lemon before. The salivation and sour taste would be unconditioned responses.
Validity :	All tests are designed to measure something; hopefully something specific. If the test measures what it is supposed to measure, then we can say that the test is valid (or has validity). In psychology, tests are often designed to measure their reliability (if the test produces similar results each time the test is taken). Test reliability is not the same as validity. A test might be reliable without it being valid. For example, let's say you go to class and you find out that the weight of your head determines the likelihood of you getting cancer. So, each day you go to class, you weigh everybody's head on a scale. This continues for one week. Across each day of the week, the weight is approximately the same; thus we can conclude that the test is reliable. However, is this test a valid measure (that the weight of your head predicts the likelihood of you getting cancer)? If the test is reliable, it is not necessarily valid (it does NOT measure what it was designed to measure).
Variable :	Any characteristic that can assume multiple values or can vary in participants. Variables can be physical, mental, consumption, attitude and many, many other attributes. Related terms included Independent Variable, Dependent Variable, and Control Variable.
Wavelength :	The way we measure sound waves, audio waves, and other types of waves is by their wavelength. The wavelength of a wave (or wavelength) refers to the distance between the peak of one wave and the peak of the next wave. The highest point, we use that as the first measure. Then the wave usually goes down to a trough and then back up to a high point again. This second point is the next measure. We then simply use the distance between the two points as the wavelength of the wave.
Weber's Law :	Weber's Law is related to the Just Noticeable Difference (also known as the difference threshold). It states that the difference in stimulation that a person can detect is 50 percent of the time. But Ernst Weber noted that the difference in stimuli must differ by a constant "proportion" not a constant "amount".
X Chromosome :	The 23rd pair of chromosomes are the sex chromosomes. There are two types of sex chromosomes. The X chromosome is a sex chromosome that both males and females have. Females have two X chromosomes. Males have one X chromosome. In humans, the mother always contributes an X chromosome, while the father contributes either an X (creating a female child) or a Y (creating a male child).
Y Chromosome :	The 23rd pair of chromosomes are the sex chromosomes. There are two types of sex chromosomes. The Y chromosome is a sex chromosome that both males and females have (females have two X chromosomes and males have one X and one Y chromosome).

that contains one gene that signals a series of chemical events to occur during pre development of a male child. This Y chromosome comes only from the father, so if c produce a child, they would be unable to produce a male.

**Young-Helmholtz
Trichromatic (three
color) Theory :**

This is a theory of color and how humans perceive color. According to this theory, th for color (meaning each one is most sensitive to one color): one is most sensitive to r sensitive to blue. These color receptors combine the colors to produce the perception o receptors specific to orange, but by stimulating the right cones in the right way, orange

Zygote :

When a female (human) egg is fertilized, it is no longer classified simply as an egg, b zygote goes through an amazing amount of development that occurs in the form of rapidly, thus doubling during each division (we all start as just a single celled organism