Nathaniel Wynne
P450—Dr. Bonk
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P540 Supersized Personal Course Glossary with Bonus Resources

1. **Accommodation**: Used as a term in Piaget's cognitive development theory, accommodation is the process of adjusting the status of information that has already been learned for the purpose of acquiring new information. See: Assimilation

   Example: *Joey grew up thinking that the moon was a source of light just like the sun. However, Joey took a science class in junior high and learned that the source of the moon's light actually originates from the sun. Here, before Joey could accept this new information cognitively, he needs to accommodate by adjusting his initial understanding of the moon as no longer a light-emitting object in space.*

   Resources:
- http://psychology.about.com/od/glossaryfromatoz/g/Accommodation.htm
- https://www.youtube.com/watch?v=3-A9SgbAK5I

2. **Accretion**: The gradual accumulation of knowledge through the course of normal everyday occurrences. Each new bit of information acquired often has no relation to other accumulated knowledge. See: tuning and restructuring

   Example: *Today I learned new things by accretion when I learned from my girlfriend that the lead singer of Stone Temple Pilots died, that the woman who was involved in the San Bernadino mass shooting the other day had connections to ISIS, and that I have a wild rat hiding in my apartment who is eating food that is left out. All of this information was accumulated not through active learning but passive learning and thus considered accretion.*

   Resources:
- http://www.dsoergel.com/UBLIS571DS-06.1a-1Reading10RumelhartAccretionTuningAndRestructuring.pdf
- http://www.instructionaldesign.org/theories/modes-learning.html

3. **ARCS**: Also known as Keller's model of motivational design, this theory of learning suggests that people acquire knowledge best when they see value in the knowledge and they have a high expectation that that knowledge will benefit them. Four key terms for this theory of learning are: attention, relevance, curiosity, and satisfaction.

   Example: *According to ARCS, I will acquire the most amount of knowledge from Dr. Bonks P540 class if I believe that the information he has to share is valuable and that I will be able to use it for my benefit in the future. However, if I do not see much value in learning about theories*

of learning or even the field of psychology as a whole, I will likely not take away much from his class.

Resources:

- http://www.arcsmodel.com
- http://torreytrust.com/images/ITH_Trust.pdf

4. **Affordance:** used to characterize the impact of the environment on an organism's behavior, or how it lives in its environment. Cognitivists among others use this term.

   Example: *My laptop computer affords me the opportunity to access the Internet and all the information that Dr. Bonk has uploaded onto OnCourse. Thus my laptop is part of my environment and affords me the behavior of a 21st century student in the US.*

   Resources:

- http://psychology.wikia.com/wiki/Affordance
- https://www.youtube.com/watch?v=NK1Zb_5VxuM

5. **Anchoring:** A bias that occurs when a preference is given to the first piece of information that a person is given despite being exposed to subsequent information. This can be a negative effect when the first piece of information is not representative of the entire picture.

   Example: *Sue watches an advertisement that states one of the presidential candidates used to smoke cannabis when he was younger. This initial piece of information influences her view of the candidate in a negative fashion. From this point forward, despite the fact that the candidate no longer has that lifestyle, Sue continues to think of the candidate negatively when faced with new information that would have made her think positively of him had she not first heard the initial information.*

   Resources:

- http://psychcentral.com/blog/archives/2013/07/27/the-anchoring-effect-how-it-impacts-your-everyday-life/
- https://www.youtube.com/watch?v=SZpJrDpCnEY

6. **Anxiety:** An emotion that typically causes fear, worry, and can have the physical effect of raising blood pressure. Anxiety has the potential to negatively impact the learning process.

   Example: *When I am faced with giving presentations in class I find it difficult to learn my speech/material due to high anxiety levels because I fear making mistakes in front of an audience.*

   Resources:

- http://www.apa.org/topics/anxiety/
- http://psychology.about.com/od/mentalhealth/a/test-anxiety.htm

7. **Assimilation:** Used by Piaget to describe what happens when an individual incorporates new information with existing information potentially without altering the existing information. This is different than accommodation partly in that the new information may not change the status of the old information. A common effect of assimilation is the emergence of stereotypes due to the preexisting beliefs we hold. See: Accommodation

   Example: *When Jimmy was a child he learned that cats have fur, four legs, and a tail. One day Jimmy comes across a ferret and uses the old information he learned about cats to assimilate his initial incoming knowledge of the ferret. This leads Jimmy to assume that the ferret is a cat as well because it has all the same characteristics of a cat that he had initially learned.*

   Resources:
- http://psychology.about.com/od/aindex/g/assimilation.htm
- https://www.youtube.com/watch?v=3-A9SgbAK5I

8. **Association:** The process of linking pieces of information that share similar traits. This can be useful for learning more efficiently because it is easier to access knowledge when it is associated with similar knowledge. Association is a term used by Behaviorists to describe how making a connection between a stimulus and a response can reinforce behavior.

   Example: *I associate brake lights on a car in front of me by reacting with putting my foot on my car's break pedal. This learned association has helped me avoid countless accidents.*

   Resources:
- http://www.alleydog.com/glossary/definition.php?term=Association%20Theory
- https://www.youtube.com/watch?v=RWr10fn5c_o

9. **Attribution theory:** First described by Fritz Heider, this theory describes the phenomena where individuals make judgments about causes of events by implicating internal or external factors that may or may not be relevant. Attribution has the potential to negatively impact the learning process.

   Example: *I took a calculus class as part of my undergraduate course load. I did not do as well as I had hoped because it was extremely difficult for me. This lead me to attribute all math classes to the difficulty of the calculus class causing me to overgeneralize and say that I find all math difficult.*

   Resources:
- http://www.psychwiki.com/wiki/Attribution_Theory
- https://www.youtube.com/watch?v=QAp5pmQqqDk

10. **Automaticity:** This happens when information can be retrieved without much effort and behavior can then be performed similarly without needing to think too hard about retrieving the information. Sometimes automaticity results in routine. Automaticity has the potential to be problematic because it can cause a loss of control over behaviors.

Example: *I used to hear my favorite song on the radio multiple times a day and sang along to it. Now, ten years later, whenever I hear the first few notes of the song I automatically can recall the lyrics without effort.*

Resources:

- http://psychology.wikia.com/wiki/Automaticity
- https://www.youtube.com/watch?v=Apc5XBgpT0c

11. **Behaviorism:** A theory that assumes learners are blank slates that can be manipulated with stimuli to produce desired responses. Behaviorism does not account for internal cognitive processes such as emotion and how they affect the learning process. While newer theories of learning have emerged that challenge the claims of behaviorist, behaviorism is still influential among many psychologists.

    Example: A few summers ago I went to China. While I was there I learned how say thank you. A behaviorist would describe my learning process as externally occurring due to a stimulus (receiving food) resulting in my behavior (saying thank you). There would be no discussion on the internal process of why I wanted to learn how to say thank you.

    Resources:

- http://www.iep.utm.edu/behavior/
- https://www.youtube.com/watch?v=RU0zEGWp56Y

12. **Chunking:** A learning strategy that involves taking large amounts of information and grouping them in to more manageable bits. This strategy can improve short-term memory.

    Example: *Learning my girlfriend's phone number was made easir by using the standard chunking method of 123-4321. Trying to remember all 7 numbers in a row, 1234321, would have been much harder.*

    Resources:

- http://psychology.about.com/od/cindex/g/chunking.htm
- https://www.youtube.com/watch?v=KhZrQQeZ0WA

13. **Classical Conditioning:** Made famous by Ivan Pavlov, this behaviorist approach to learning theorizes that learning happens when an unconditioned (unlearned) response becomes a conditioned (learned) response once a neutral stimulus is paired with an unconditioned stimulus. Put simply, the process involves changes in behavioral responses through association. See: Association

Example: *My dog hides whenever I turn on the vacuum cleaner. The sound of the vacuum is an unconditioned stimulus and the hiding is an unconditioned response. Now, my dog associates the mere presence of the vacuum cleaner in the room with the sound it makes. The result is my dog now hides whenever he sees the vacuum even if it is not turned on. Here, the presence of the vacuum results in a condition response, which is my dog hiding.*

Resources:

- http://www.edpsycinteractive.org/topics/behavior/classcnd.html
- https://www.youtube.com/watch?v=cP5lCleK-PM

14. **Cognitivism:** A theory of learning that accounts for a learner's internal thought processes unlike Behaviorism, which primarily focuses on external stimuli and responses. The process of learning is internalized and processed by the mind.

    Example: *At some point in my life, I learned that drinking coffee helped me focus on tasks. Today I drank a cup of coffee while I worked on my final project for Dr. Bonk's P540 class. A cognitivist would examine the internal processes that lead me to drink the coffee such as, did I drink the coffee because I liked the taste. This is opposed to a behaviorist approach, which would only look at external observable factors.*

    Resources:

- http://teachinglearningresources.pbworks.com/w/page/31012664/Cognitivism
- http://innovativelearning.com/educational_psychology/cognitivism/index.htm

15. **Cognitive Information Processing Theory:** cognitivists use this term to describe the active state of learning within the brain that allows an individual to gather external information and utilize it systematically to produce behaviors. The concept of a computer can be used as an analogy to CIP where the mind receives data which it can then collect, store, reject, and transform the information for use immediately or at a later time.

    Example: *After a search on Yelp.com for reviews on nearby Italian restaurants, I use all of the information I gathered to make a decision as to where I want to go. I initially choose the closest restaurant but I remember the road that takes me there is under construction thus making the trip longer. Using that information, I choose to go to a different restaurant that is a bit further away but will take less time to get to.*

    Resources:

- http://www.expertlearners.com/cip_theory.php
- https://www.youtube.com/watch?v=vcb6zLIVq5k

16. **Combinatorial learning:** One of Ausubel's four processes of meaningful learning, this describes the acquisition of new knowledge by joining it with knowledge that not hierarchical (subordinate or superordinate). See: meaningful learning

Example: *I can help teach someone about how cars use fossil fuels to create energy by combining that information with a similar analogy of how humans use food to also create energy.*

Resources:

- https://notendur.hi.is//~joner/eaps/wh_ausub.htm
- http://www.mhxml.com/SC/Learning.htm

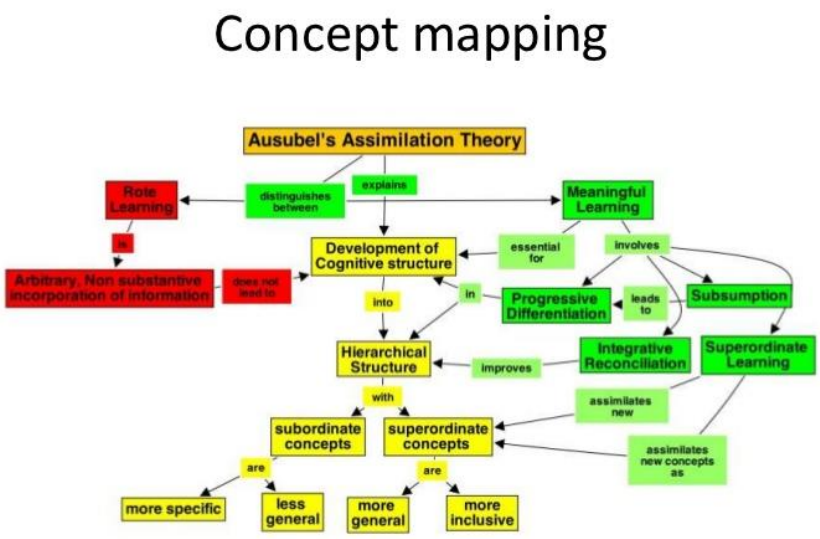
17. **Comparative organizers:** One of two kinds of advanced organizers, this term is used in meaningful learning theory to describe tactics that allow for efficiently comparing and contrasting of information.

    Example: *By using all of the information I've learned from Dr. Bonk's P540 course, I can compare and contrast each of the learning theories we have discussed throughout the semester to look for trends.*

    Resources:

- http://www.myenglishpages.com/blog/ausubels-learning-theory/
- http://kb.edu.hku.hk/advance_organizers.html

18. **Concept Mapping:** A learning strategy that makes use of visual diagrams to illustrate relationships between multiple concepts.



Example:

Resources:

- http://www.cmu.edu/teaching/assessment/howto/assesslearning/conceptmaps.html
- https://www.youtube.com/watch?v=vuBLI6ijHHg

19. **Connectivism:** described as a learning theory for the digital age, Downes and Siemens conceived of Connectivism in 2005. Connectivist learning theory describes the acquisition of knowledge by an individual through the process of connecting to nodes or online learning communities and gathering information from multiple sources. Connectivism largely seeks to account for the rise of the digital age and how it's affected how we learn. Critics of Connectivism claim that many of the components of the theory have already been proposed and are similar to the previously proposed learning theory, constructivism.

    Example: *In order to learn more about Connectivism, I used the Internet to search for learning communities that have done research on this learning theory. I visited Wikipedia, JSTOR, and various university (.edu) sites and compiled all of the information I learned. I then took that knowledge and used it to search for criticism of Connectivism and related learning theories.*

    Resources:

- http://www.connectivism.ca/about.html
- http://halfanhour.blogspot.com/2014/04/connectivism-as-learning-theory.html
- https://www.youtube.com/watch?v=yx5VHpaW8sQ

20. **Constructivism:** A learning theory that posits a learner actively constructs information by building on previously learned information. Personal experiences contribute to the learning process. Information that is constructed by an individual is subjective. This theory is contrasted with the behaviorist assumption that a learner's previous experiences do not play a role in the acquisition of new information.

    Example: *When Jerome is taught the word for cat in Spanish, he does not need to relearn what a cat looks like. He is able to take previously learned information such as purring, a tail, wiskers, and four legs to construct a mental image of a cat and relate that image to the new word for cat (gato).*

    Resources:

- http://www.learning-theories.com/constructivism.html
- https://www.youtube.com/watch?v=F00R3pOXzuk

21. **Constructionism:** A learning theory that posits learning most effectively occurs when knowledge is acquired through tangible information. This theory is similar to constructivism in that it assumes that knowledge is accumulated through experiences. However, constructivism focuses more on cognition rather than external factors.

    Example: *I read about how to change the oil in my car online. But, understood the process much better after I watched a mechanic change the oil on a similar car and then mimicked his actions on my own car.*

    Resources:

- http://edutechwiki.unige.ch/en/Constructionism
- http://learning.media.mit.edu/content/publications/EA.Piaget%20_%20Papert.pdf

22. **Correlative subsumption:** One of Ausubel's four processes of meaningful learning, this describes the acquisition of new knowledge by adding new information to a subject that is related to it and extends the original concept of the subject. See: meaningful learning

    Example: *Jane knows that pianos have black and white keys. When she learns that pianos typically have 88 keys, she uses correlative subsumption to extend her knowledge of or concept of a piano.*

    Resources:
- https://notendur.hi.is//~joner/eaps/wh_ausub.htm
- https://books.google.com/books?id=DhBu3692uO4C&pg=PA72&lpg=PA72&dq=correlative+subsumption&source=bl&ots=FBhWCbJNdh&sig=s10RTarw9PfQf9De0IUFdstgLIw&hl=en&sa=X&sqi=2&ved=0ahUKEwi_38fP4cPJAhVKQyYKHQPoAVYQ6AEITDAH#v=onepage&q=correlative%20subsumption&f=false

23. **Discovery learning:** based on constructivist theory, this type of learning focuses on personal inquiry and self-directed motivation. Learners encounter problem-solving tasks and interact with tangible objects. It was introduced by Jerome Bruner in 1961.

    Example: I want to learn how to teach my dog to "shake" so I experiment with different techniques and reinforcers until I've accomplished the task.

    Resources:
- http://www.learning-theories.com/discovery-learning-bruner.html
- http://elearningindustry.com/discovery-learning-model

24. **Dual coding theory:** Proposed by Allan Paivio, this theory posits that there are two separate cognitive functions: one for representing non-verbal entities (images) and the other for representing language and sounds (audio). This theory can be used to improve learning strategies by linking the two cognitive functions to recall information more efficiently.

    Example: *I can learn to recognize the sound of a rooster crow and link it to the image of a rooster. Thus, if I hear a rooster crow I know what to look for if I want to find its location.*

    Resources:
- http://www.instructionaldesign.org/theories/dual-coding.html
- https://www.youtube.com/watch?v=6CPNLwKmWpc

25. **Elaboration theory:** proposes that information is best learned when learning strategies involve acquiring basic information first then progressing sequentially to higher more complex information.

Example: *Jodi wants to learn how to build a computer. She might first read about the history of computers, then move on to learning about computer components, then to dismantling a computer to view its insides, then on to acquiring the components and building one herself.*

Resources:

- http://www.instructionaldesign.org/theories/elaboration-theory.html
- https://www.youtube.com/watch?v=uBSrlVOta9U

26. **Enactive Mastery Experience:** a component of the self-efficacy theory model, this term describes how successes for an individual can lead to more learning whereas failure can lead to avoidance of learning.

    Example: *I tried to take an advanced biology course during my undergraduate career. I failed miserably. As a result of this failure, I resisted attempting any more biology related courses.*

    Resources:

- http://www.uky.edu/~eushe2/Pajares/effbook3.html
- http://www.citeman.com/2923-self-efficacy-theory.html

27. **Encoding specificity-** Proposed by Endel Tulving and used by learners to quickly and efficiently retrieve information that is stored in memory.

    Example: *Judy can use context to help myself remember Christmas carols by encoding a specific place such as a front doorstep to link with the carols she is trying to remember.*

    Resources:

- https://coglab.cengage.com/labs/encoding_specificity.shtml
- http://alicekim.ca/9.ESP73.pdf

28. **Expectations:** can be used to describe a desired outcome of a behavior. Expectations may or may not be rational and can profoundly affect the quality of learning depending on a number of variables.

    Example: *Many people move to the US and their expectation is to live out the American Dream so they begin to learn English to improve their chances of that happening. However not all people who speak English, in fact most people, do not get to live the American Dream.*

    Resources:

- http://iteslj.org/Techniques/Bennett-Expectations.html
- http://www.education.com/reference/article/teachers-expectations-affect-learning/

29. **Extinction**: when a conditioned response slowly weakens and eventually the behavior is no longer exhibited. This can happen when a reinforcement is no longer seen as a reward. This term in relation to behaviorist theories.

Example: *James thinks pizza tastes delicious. The taste reinforces the behavior of ordering pizza every night. One night after eating pizza he gets bad indigestion and this continues to happen every night he eats pizza. Eventually the good taste of pizza is no longer seen as a reward for James and he stops ordering pizza.*

Resources:

- http://psychology.about.com/od/eindex/g/extinction.htm
- https://www.youtube.com/watch?v=MfKjg20KM0s

30. **Failure to retrieve-** this type of forgetting occurs when information that has been acquired at some point in the past is not accessible. The information that is unable to be retrieved is typically stored long-term memory.

    Example: *John met a girl 10 years ago that he dated. Her name was Jill. One day he tells his friend about the girl he dated but is unable to recall what her name was.*

    Resources:

- http://www.simplypsychology.org/forgetting.html
- http://psychology.about.com/od/cognitivepsychology/tp/explanations-for-forgetting.htm

31. **Gagné's instructional theory:** This theory assumes the CIP model and further suggests that the learning atmosphere (conditions of learning) can affect the type of learning performed. Thus, instructional methods must be geared toward the individual student's needs.

    Example: *If I am to teach Jonas how use an iPad and I know he already has knowledge on how to use an iPhone I do not need to teach him the basics of iOS and instead focus on what differentiates the difference between an iPad and an iPhone.*

    Resources:

- http://home.gwu.edu/~mcorry/corry1.htm
- https://www.youtube.com/watch?v=HV68X84xDpM

32. **Genetic Epistemology:** The study of how knowledge is first acquired or the roots of knowledge. Cognitive structures are examined in this study.

    Example: *One famous researcher on this subject was Jean Piaget who examined child development.*

    Resources:

- http://www.instructionaldesign.org/theories/genetic-epistemology.html
- https://www.youtube.com/watch?v=JT3Jf_henaY

33. **Goal-directed behavior:** behavior that is performed for the purpose of specific end results

Example: *I want to get a good grade in Dr. Bonk's P540 course so I spend countless hours reading the materials he assigns, watching his online videos, and creating projects that highlight what I have learned. The goal of getting a good grade supports my behavior of intense studying.*

Resources:

- http://psychologydictionary.org/goal-directed-behavior/
- https://www.youtube.com/watch?v=YXSIz58LRTo

34. **Imitation:** This is a learning strategy that involves copying or repeating with precision a desired behavior.

    Example: *Janice is having trouble working the fax machine at work. She decides to watch Jordan efficiently use the fax machine and then she imitates the behavior she sees in order to successfully master the use of the fax machine.*

    Resources:

- http://www.learningandteaching.info/learning/imitation.htm
- https://www.youtube.com/watch?v=R1ODoYCuvg0&list=PLPwUFm6cWqTalitzU2bybtTx2mrDzWp6d

35. **Interference**- this occurs when retrieval of information is obstructed by other information. While the information is not retrievable, this does not mean that the information is forgotten completely.

    Example: *I try to remember my password to OnCourse but I am unable to recall it because I just changed the password yesterday and the only password I remember is the old password I had prior to the change.*

    Resources:

- http://www.simplypsychology.org/forgetting.html
- http://www.psychologyandsociety.com/interferencetheory.html

36. **Interaction theory:** while there are differing types of interactional theories, at the center is the notion that learning comes from socially mediated connections. Sociocultural conditions play a big role in learning.

    Example: *Learning how to be respectful to elders is different in China versus the US.*

    Resources:

- http://homepages.wmich.edu/~weinreic/SWRK350/TheoryLearningObject/interactionism.html
- https://www.youtube.com/watch?v=Dmhn_pCq_l0

37. **Keyword method:** A learning strategy that links two pieces of information together by converting the sound of a word to a mental image.

Example: I want to remember that the word "gordo" means "fat" in Spanish. I visualize a plump "gourd" (the fruit) and link it with the word "gordo."

Resources:

- http://www.memory-improvement-tips.com/keyword-method.html
- http://www.mempowered.com/strategies/using-keyword-method-learn-vocabulary

38. **LASSI (Learining and study strategies inventory)-** A standardized test that assesses the extent to which a student is knowledgeable about effective study techniques. Students who take this test are able to use the results to determine the strengths and weaknesses of their study behavior.

    Example: *Sally thinks that currently her study skills are poor and wants to improve them. She decides to take the LASSI to help her gain some insight as to what techniques she can best utilize for better study performance. After the test, she learns she needs to improve on her time management skills as well as self-regulation.*

    Resources:

- http://www.hhpublishing.com/_assessments/lassi/
- https://www.youtube.com/watch?v=DA3xa0olnmw

39. **Learned helplessness:** repeated, unrelenting exposure to an undesirable stimulus that results in a subject's acceptance of that stimulus. Once accepted, the subject will not attempt to escape the stimulus because of the assumption that it will never go away. This theory initially came about through animal testing, however the concept has been broadened to include humans, too.

    Example: *Every winter I get extremely bad eczema. I went to a doctor and was told there was nothing I could do to prevent it from happening. As a result I do nothing each winter to try to escape the torturous itchiness of my dry skin. Due to repeated exposure to eczema, I now exhibit Learned Helplessness because I do not attempt to escape the undesired itchiness.*

    Resources:

- http://psychology.about.com/od/lindex/f/earned-helplessness.htm
- https://www.youtube.com/watch?v=lADU_rJIM6M

40. **Learning trajectory**: An instructional method that helps to describe a learner's participation over time. There are five types of learning trajectory: peripheral; inbound; insider; boundary; outbound.

    Example: *I want to teach someone to drive a car with a manual transmission. To create a learning trajectory I might first find out why the person wants to learn to use a manual transmission. Next I might have them read some articles on manual transmissions. Then I can have them get in a car with a manual transmission and actively teach them in a parking lot. Finally I can move them to a street with other cars driving on it.*

    Resources:

- http://edr.sagepub.com/content/41/5/147.abstract
- https://www.youtube.com/watch?v=0KiBDbNvQF0

41. **Legitimate Peripheral Participation**: Part of situated learning, this describes how newcomers become experienced members and eventually old timers of a community of practice or collaborative project.

    Example*: As I have progressed through formal academic learning, I have moved from a high school diploma, to a bachelor's degree, and I am now working on my master's degree.*

    Resources:

- http://c2.com/cgi/wiki?LegitimatePeripheralParticipation
- https://www.youtube.com/watch?v=5impsh9Ujts&list=PL5GmZz4LWbayitAGlvwLtNpcnGR7wWvdL

42. **Link Method:** These are types of learning strategies that are used to connect bits of information to create larger pieces of information. The Keyword method might be considered a type of Link method.

    Example: *I learn how to peel an apple by connecting the idea that peeling a potato is similar.*

    Resources:

- http://www.memory-improvement-tips.com/link-method.html
- https://www.youtube.com/watch?v=H05-981v-pc

43. **Meaningful reception learning:** A process of learning that requires relevant information to be systematically and sequentially attached to existing information. There are four types of processes this theory: derivative subsumption, correlative subsumption, superordinate learning, and combinatorial learning. Proposed by David Ausubel.

Example: Jackie learns more about what a table is by systematically adding its features to her mental picture of it. She might first start with legs then a flat surface on top then items that can be placed on top of that flat surface.

Resrouces:

- http://pioneeringtheoriesoflearning.wikispaces.com/Meaningful+Reception+Learning+Theory
- http://fpmipa.upi.edu/data/report_activity/9875881844.pdf

44. **Mental models:** these are cognitive representations of physical or imagined objects, situations, or subjects. They are used in the learning process collect and construct an understanding of certain things. Mental models can be examined to study how a person reasons.

    Example: *I have a mental model in my head of the city of London which includes the Tower of London, London Bridge, Abbey Road, and Buckingham Palace. While this model does not fully represent the city of London, it serves as a generalized construct of what I understand the city to be.*

    Resources:

- http://mentalmodels.princeton.edu/about/what-are-mental-models/
- https://www.youtube.com/watch?v=AUVEovGNkQM

45. **Metacognition:** Sometimes described as the process of "thinking about thinking," this can be used as a method of learning that requires active awareness of cognitive functions and self-directing mental states for desired purposes or outcomes.

    Example: I might use my metacognition skills to consciously look up and read all of the information on learning theories that exist and then reflecting on what I've learned. This might take me a lifetime, but I will be actively aware of this activity as opposed to learning to avoid a pothole I've seen for the first time, which would be subconscious way of learning.

    Resources:

- http://gse.buffalo.edu/fas/shuell/cep564/metacog.htm
- https://www.youtube.com/watch?v=mVE21QhY-lI

46. **Method of loci:** A type of mnemonic device that has historically been used since at least the ancient Greeks which involves imagining a place such as your house and "storing" information in rooms and locations within the mental image of your house.

    Example: *I imagine my apartment and place the information I know about B.F. Skinner in the kitchen with individual concepts like operant conditioning in the fridge and his year of birth in the microwave. Using this method, I can easily return to my apartment image and recall the information based on its location within my mental construct.*

    Resource:

- http://psychcentral.com/lib/memory-and-mnemonic-devices/

- https://www.youtube.com/watch?v=VcIfKkhc6B0

47. **Miller's magic number:** a theory that posits a majority of adults can store plus or minus seven pieces of information in "slots" in their short-term memory. To improve the capacity of these "slots" it may be possible to expand them through chunking. See: chunking

    Example: *I might have nine phone numbers memorized and there's a possibility that if I try to learn a tenth number that I will forget one of the nine previous numbers.*

    Resources:
- http://www.simplypsychology.org/short-term-memory.html
- https://www.youtube.com/watch?v=tCgYBPHUSUM

48. **Mnemonics:** learning tools used to aid or help improve the acquisition of knowledge. There are many types of mnemonics and one type might be useful to some people while ineffective for others. Mnemonics are useful for encoding and storing information relatively fast and efficiently.

    Example: *One type of mnemonic that I find very helpful is the use of acronyms to remember a set of words. For instance, in Biology class I had to memorize the taxonomy order: Kingdom, Phylum, Class, Order, Family, Genus, and Species. I memorized this as KPCOFGS with the fun sentence: Kids Playing Catch On Freeways Get Smashed.*

    Resources:
- http://faculty.bucks.edu/specpop/mnemonics.htm
- https://www.youtube.com/watch?v=kQzFNBSpK6w

49. **Modeling:** Described in Bandura's work on children as a process of imitation that facilitates learning. His famous Bobo doll experiment focused on child aggression.

    Example: *Judith's daughter Jenny watches her use the remote control to turn on the TV. Jenny models this behavior to learn how to turn on the TV.*

    Resources:
- http://psychology.jrank.org/pages/428/Modeling.html
- https://www.youtube.com/watch?v=Pr0OTCVtHbU

50. **MOOC:** An acronym for Massive Open Online Course, which is a model for creating an Internet-based learning community where anyone anywhere can join. Some courses are free while other might have low entrance or completion fees. MOOCs are advantageous for students who do not want to travel to class or cannot afford to pay for on-campus classes.

Example: *MIT (Massachusetts Institute of Technology) has a number of MOOCs that are available to anyone anywhere.*

Resources:

- http://www.educause.edu/library/massive-open-online-course-mooc
- http://www.mooconmooc.org

51. **Motivation:** occurs when reasons for performing a behavior are present in an individual. This is considered by some to be an important component in effective learning. Theories of learning include intrinsic and extrinsic motivation.

    Example: *I am motivated to get an A in Dr. Bonk's P540 course because I want to learn more about improving my teaching skills and ultimately receive a Master's degree in Education.*

    Resources:

- http://gsi.berkeley.edu/gsi-guide-contents/learning-theory-research/motivation/
- http://psychology.about.com/od/mindex/g/motivation-definition.htm

52. **Negative Reinforcement**- when defined under the lens of Operant Conditioning, this occurs when a reinforcer that is undesirable is eliminated. It is not the same as Punishment because it increases the frequency of a behavior as opposed to decreasing a behavior.

    Example: *If I try to drive my car without putting on my seatbelt a really loud annoying beeping sound come from the dash. In order for me to stop that sound I have to put on my seatbelt. By removing the beeping sound (the negative reinforcer) it increases the behavior of putting on my seatbelt.*

    Resources:

- http://psychology.about.com/od/operantconditioning/f/negative-reinforcement.htm
- http://pavlok.com/blog/positive-vs-negative-reinforcement-which-is-more-effective/

53. **Nodes:** Used in among Connectivists to describe learning communities. Learners connect to nodes to retrieve information and contribute information for other learners to use. Nodes are typically spoken of as online learning communities.

    Example: *I connect to Priuschat.com to learn more about how best to take care of my Prius. Priuschat.com is an online community where people join and learn from each other about the Toyota Prius.*

    Resources:

- http://www.itdl.org/journal/jan_05/article01.htm
- https://www.youtube.com/watch?v=cFCYjm6nf40

54. **Observational learning:** posits that learning can occur simply by watching behavior without necessarily modeling it. Used by Bandura in his social learning theory.

Example: *I've learned how to drive on the left side of the road even though I've never done it. I watched others in the UK do it but have never driven in the UK myself.*

Resources:

- https://www.boundless.com/psychology/textbooks/boundless-psychology-textbook/learning-7/cognitive-approaches-to-learning-48/bandura-and-observational-learning-203-12738/
- http://psychology.about.com/od/oindex/fl/What-Is-Observational-Learning.htm

55. **Operant Conditioning:** a Behaviorist theory introduced by B.F. Skinner that states one can alter a behavior through the use of a reinforcement given after a desired behavioral response is elicited.

    Example: *A student rarely asks questions during class. In order to alter this behavior and increase the frequency of question asking, the teacher begins giving extra credit each time the student asks a question. As a result the extra credit acts as a reinforcement and causes the student to ask questions more often.*

    Resources:

- http://www.simplypsychology.org/operant-conditioning.html
- https://www.youtube.com/watch?v=Mt4N9GSBoMI

56. **Pattern recognition:** a type of learning model that involves acknowledging matching repetitions in an environment and using those repetitions to facilitate the learning process.

    Example: *Law enforcement agencies use pattern recognition to help them study the criminals they are trying to apprehend.*

    Resources:

- http://cdn.intechopen.com/pdfs-wm/5795.pdf
- https://www.psychologytoday.com/blog/imagine/201103/what-s-the-pattern

57. **Pegword method:** a mnemonic device that involves linking words that rhyme with corresponding numbers to memorize information.

    Example: *Memorize the following rhymes—1=gun, 2=shoe, 3=tree, 4=door, 5=hive, 6=sticks, 7=heaven, 8=gate, 9=wine, 10=hen. Then take a list of 10 items and match mentally to a number. For instance, imagine a grocery list and the first on the list can be pair with the image of it being shot with a gun, like broccoli, the second inside a shoe, like bread, etc.*

    Resources:

- http://www.psychologistworld.com/memory/mnemonics_pegword.php
- https://www.youtube.com/watch?v=4RUNgEa_d6o

58. **Perceived competence:** This term is used to describe the level at which a learner is confident about his or her ability to learn and or succeed. This has the potential to negatively impact the

learning process. This can lead to optimism or pessimism. Some believe that intrinsic motivation can boost perceived competence.

Example: *Joanna's perceived competence on public speaking is abysmal. She does not think she can effectively communicate to an audience thus it is hard for her to memorize a speech when imagining the outcome.*

Resources:

- https://www.psychologytoday.com/blog/dont-delay/200903/optimism-and-perceived-competence-resilience-resources
- http://merl.nie.edu.sg/practip_sport4.html#.VmNAMoRTKhg

59. **Personalized system of instruction:** developed by Fred Keller, this promotes learning through a self-paced atmosphere that emphasizes mastery of material before new material can be learned. This is a step-by-step process that can utilize multiple forms of learning like reading or watching a video.

    Example: *I create PSI online for people who want to learn how to play guitar. The PSI is set up so that learners cannot move forward until they've conquered specific basic skills first and only then can they advance to more complex material.*

    Resources:

- http://www.irrodl.org/index.php/irrodl/article/view/152/233
- http://www.nwlink.com/~donclark/hrd/history/psi.html

60. **Positive Reinforcement**- when defined under the lens of Operant Conditioning, Positive Reinforcement occurs when a reinforcer that is desirable is given. Positive Reinforcement and Negative Reinforcement work the same way in that they both increase the frequency of a behavior.

    Example: *Every time I go for one month without a speeding ticket my car insurance company gives me a $20 discount on my premium. As a result, I do not drive over the speed limit so that I can save $20 on my monthly premium bill.*

    Resources:

- http://psychology.about.com/od/operantconditioning/f/positive-reinforcement.htm
- http://www.wikihow.com/Understand-Positive-Reinforcement

61. **Premack Principle:** Also known as Granny's Rule, this Behaviorist theory states that one can use something that is more enjoyable as a reinforcement to elicit a behavior that is less enjoyable.

Example: *I want my little girl to wake up early to go to school. I know she likes donuts a lot. I decide to reinforce the less enjoyable behavior (waking up early) by combining it with a more enjoyable behavior (eating donuts).*

Resources:

- http://www.intropsych.com/ch05_conditioning/premack_principle.html
- https://psychlopedia.wikispaces.com/Premack+Principle

62. **Preoperational period:** Developed by Piaget, this is one of four stages of cognitive development where a child is between ages 2 and 6. Here they begin to use (sometimes inaccurate) words, images, and actions to describe things.

    Example: *5-year-old Jake draws rudimentary stick figures to represent his family.*

    Resources:

- http://www.simplypsychology.org/preoperational.html
- https://www.youtube.com/watch?v=M244b2aDcz8

63. **Primary reinforcers:** These are biological necessities or desires that can be used to promote or discourage behavior. Used in Behaviorist models.

    Example: *Jack tells his son Joe to eat his spinach otherwise he will go to bed on an empty stomach.*

    Resources:

- http://peace.saumag.edu/faculty/kardas/courses/GPWeiten/C6Learning/PrimSec.html
- http://psychology.about.com/od/operantconditioning/f/reinforcement.htm

64. **Problem based learning:** learning is accomplished through a student-centered problem that is open-ended and does not have specific instructions on how to accomplish it. Teachers are seen as facilitators and not direct givers of knowledge. This can be problematic if students are novices at the type of problem because no resources are available.

    Example: *I ask students to get in groups and I give them a paper with a scenario that has a problem needs to be solved. I do not give directions on how to solve that problem but might give hints if they get stuck.*

    Resources:

- http://www.studygs.net/pbl.htm
- http://www.pbl.uci.edu/whatispbl.html

65. **Recall**: the process of retrieving previously stored information in order to perform an activity or behavior. This can be done without any prompting (free recall) or with some prompts (cued recall).

Example: *On a quiz I am asked this question "What are the branches of the U.S. government?" This question would require me to free recall the terms. Alternately, I am given the same quiz but this time I am given a hint (cue). The new question reads, "What are the branches of the U.S. government? There are three branches total." This alternate quiz would be an example of cued recall.*

Resources:

- http://www.human-memory.net/processes_recall.html
- https://www.boundless.com/psychology/textbooks/boundless-psychology-textbook/memory-8/step-3-memory-retrieval-56/memory-retrieval-recognition-and-recall-220-12755/

66. **Reception:** as opposed to discovery-based learning, Ausubel proposed that learners acquire knowledge by receiving it.

    Example: *When Dr. Bonk give his lectures I am acquiring the knowledge he is giving me through the process of reception. When I use 20% time, I am using discovery-based learning.*

    Resources:

- http://ww2.coastal.edu/dsmith/edet720/ausubelref.htm
- https://www.youtube.com/watch?v=0_bvEjzJ_IM

67. **Reciprocal Determinism**- coined by Albert Bandura, this term refers to a theory that posits learned behavior is contingent on an individual's social interactions and environment. Additionally, in this model, the personality of an individual can also influence learning.

    Example: *My friend is normally a shy student. He arrives at class for the first day to find that his teacher requires all students to participate at least 3 times per week. Normally, he would have been silent throughout the semester due to his personality. Here the environment (required participation) has influenced my otherwise shy friend.*

    Resources:

- http://psychology.about.com/od/socialpsychology/f/reciprocal-determinism.htm
- http://www.integratedsociopsychology.net/reciprocal_determinism.html

68. **Reggio Emilia**- a style of learning typically taught to preschool and early childhood students that emphasizes social collaboration, discovery learning, and environment. Originated in Northern Italy.

    Example: *IPS School # 60 is an example of a Reggio Emilia inspired school. Their mission statement includes "the environment is the third teacher." http://www.myips.org/domain/5919*

    Resources:

- http://www.aneverydaystory.com/beginners-guide-to-reggio-emilia/main-principles/
- http://www.brainy-child.com/article/reggioemilia.shtml

69. **Rehearsal:** A commonly used learning device requires an individual to habitually repeat the information in some form. The purpose of repetition is to aid the storage of the information into long-term memory. The repetition can be done in any manner that serves to aid information retention in the brain such as repeating verbally, mentally, etc.

    Example: *To learn the script for the movie audition June repeats the lines over and over in front of a mirror until she does not need to see the script.*

    Resources:
- http://psychology.jrank.org/pages/539/Rehearsal.html
- http://www.intropsych.com/ch06_memory/rehearsal.html

70. **Restructuring:** involves the use of metacognition or insight once knowledge is acquired or mastered in order to create new schemata for the purpose of replacing old ones.

    Example: *Jolie restructures what she knows about birds once she learns that their bones are not solid but hollow.*

    Resources:
- http://www.dsoergel.com/UBLIS571DS-06.1a-1Reading10RumelhartAccretionTuningAndRestructuring.pdf
- http://www.instructionaldesign.org/theories/modes-learning.html

71. **Retention:** describes how knowledge is stored in memory for use immediately or at a later time period. Once knowledge is retained it can then be recalled at some point.

    Example: *In order to pass the exam, Julia retains the key themes of the chapter that is being covered in her memory.*

    Resources:
- http://www.streetdirectory.com/travel_guide/110632/psychology/what_is_memory_retention.html
- http://pyschologyexperiment.weebly.com

72. **Rote learning:** a learning strategy that involves repetition of information until that information can be recalled quickly when needed. Many educators consider this an outdated technique.

    Example: *Josie is in detention at school and the teacher has her write on the chalkboard "I will not disrupt class" 100 times.*
    Resources:
- http://education.cu-portland.edu/blog/curriculum-instruction/what-is-rote-learning/
- https://www.brainscape.com/blog/2011/04/rote-memorization-important/

73. **Scaffolding**: An instructional process in which the teacher adjusts the amount and type of support offered to the student to suit their abilities, withdrawing support as they become more skilled.

Example: *When Jorge is first learning English, his teacher works directly with him until he is able to work with the other students. Then the teacher slowly decreases her level of assistance.*

Resources:

- http://edglossary.org/scaffolding/
- http://www.edutopia.org/blog/scaffolding-lessons-six-strategies-rebecca-alber

74. **Schema:** A mental representation of something that is comprised of pieces of information that have been learned separately. Sometimes described as a cognitive framework used to organize knowledge.

    Example: *Jeff's schema of a giraffe includes a long neck, a tail, four legs, and an herbivore.*

    Resources:

- http://psychology.about.com/od/sindex/g/def_schema.htm
- http://www.uri.edu/research/lrc/scholl/webnotes/Dispositions_Cognitive-Schema.htm

75. **Self-efficacy:** the measurement of an individual's own emotional, mental, and physical capacities. The extent to which someone believes they can accomplish an activity with satisfactory results.

    Example: *I am asked to make omelets for breakfast for my family. I accept this task confidently and unequivocally because I know I am capable of preparing excellent tasty omelets. My self-efficacy in the culinary art of omelets is strong*

    Resources:

- http://www.apa.org/pi/aids/resources/education/self-efficacy.aspx
- http://psychology.about.com/od/theoriesofpersonality/a/self_efficacy.htm

76. **Self-regulated learning:** A method of acquiring information and knowledge that requires an individual perform multiple inquiries without the need for direct supervision. This requires a degree of autonomy and self-motivation.

    Example: *As a self-regulated learner in P540 with Dr. Bonk, I actively seek out challenging material outside of the course readings that require critical thinking in order to tie the information with the course. I am constantly gathering, synthesizing, and constructing knowledge from multiple sources simultaneously while in class and outside of class. If I need help, I am not afraid to ask Dr. Bonk or any of my classmates.*

    Resources:

- https://teal.ed.gov/tealguide/selfregulated
- https://www.youtube.com/watch?v=jTa1vOH6JjA

77. **Selective attention theory-** describes a cognitive ability that allows an individual to sift out all unnecessary incoming information and only focus on information that is important. Selective attention can be a conscious effort, but also can be an unconscious behavior.

    Example: *I am working hard on my final project for Dr. Bonk's P540 course. My dog is trying to get my attention by scratching at the door. Consciously, I can hear my dog but I do not respond and instead continue to work on my final project.*

    Resources:

- http://psychology.about.com/od/cognitivepsychology/fl/What-Is-Selective-Attention.htm
- http://www.simplypsychology.org/attention-models.html

78. **Selective Memory**- relating to sight, sound, touch, smell, and taste, this stage precedes short-term memory. Before information can be stored in short-term memory, stimuli must first pass through and assessed in sensory memory. Once assessed—within second or two—an individual can determine whether the stimuli are worth processing further.

    Example: *On average, I am subjected to a huge array of stimuli every minute of the day and most of these I ignore and or deem not important enough to put into short-term memory. I might walk into a candle store and encounter hundreds of smells, but if I come across the sent of lemons I might recall that my mom likes lemons and candles and I might remember to buy the candle for her birthday.*

    Resources:

- https://www.psychologytoday.com/blog/selective-memory
- https://www.youtube.com/watch?v=vJG698U2Mvo

79. **Shaping:** A method used in operant conditioning that involves calculated and systematic reinforcements that are implemented in order to produce a desired behavior. See: operant conditioning

    Example: *I want to teach my dog how to stand on two legs. I develop a plan to successively reinforce this behavior by rewarding him with treats each time he does this. This plan effectively shapes his behavior to conform to the desired target of standing on two legs.*

    Resources:

- https://www.boundless.com/psychology/textbooks/boundless-psychology-textbook/learning-7/operant-conditioning-47/shaping-198-12733/
- http://psychology.jrank.org/pages/581/Shaping.html

80. **Situated Cognition Theory:** this suggests that knowing is inseparable from doing and argues that all knowledge is situated in activity. Knowledge is thus inherently linked to social, cultural and physical properties.

Example: *I might know how to operate a school bus without having actually driven one, but that knowledge comes from people who have indeed driven school buses. Additionally, the most accurate way for me to learn how to drive a bus is to actually perform the activity.*

Resources:

- http://elearningindustry.com/situated-cognition-theory-and-cognitive-apprenticeship-model
- http://www.angelachristopher.net/situated-cognition.html

81. **Social learning theory:** sometimes viewed as a link between behaviorist and cognitivist learning theories, Albert Bandura proposed that learning occurs in community driven environments where learners learn from each other by imitating, modeling, an observing.

    Example: *When Dr. Bonk puts his students into groups to perform activities, they learn from each other through socialization.*

    Resources:

- http://www.learning-theories.com/social-learning-theory-bandura.html
- https://explorable.com/social-learning-theory

82. **State-dependent learning:** also known as state-dependent memory, this describes how recalling information is sometimes dependent on the state in which it was learned.

    Example: Jeremiah always studies while drinking copious amounts of caffeinated beverages. When he takes his tests, he has to also consume a lot of caffeine in order to perform well.

    Resources:

- http://medical-dictionary.thefreedictionary.com/state-dependent+learning
- http://www.intropsych.com/ch06_memory/state-dependent_memory.html

83. **Stroop effect-** Named after John Stroop who first observed this phenomenon in 1935, the Stroop effect occurs when a reader has difficulty verbally saying a word of a color if the word's color does not match its semantic meaning. The Stroop effect can be used to measure a person's cognitive processing speed ability and selective attention capacity.

    Example: *I can test and try to improve the speed of my processing speed ability by making flashcards with the names of colors on them but using colored markers that do not match the semantic meaning of the words. By timing myself to see how long it takes to go through the set of cards I can try to beat that time in subsequent attempts.*

    Resources:

- https://www.youtube.com/watch?v=UAKAlP1B5WY
- https://faculty.washington.edu/chudler/words.html

84. **Superordinate learning:** One of four of Ausubel's processes of learning in his meaningful learning model, this describes the acquisition of higher forms of knowledge after learning lower ones first.

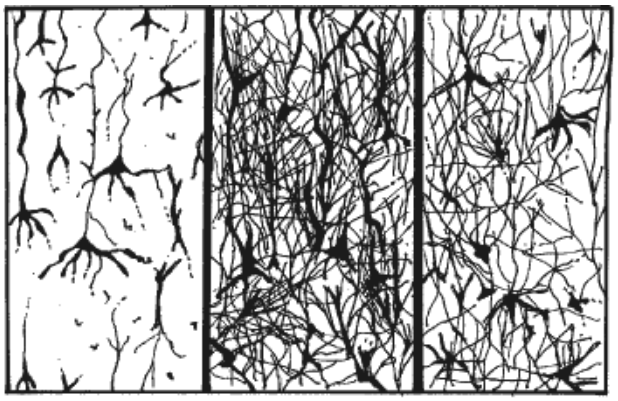
Example: *Joy knows about the Yaris, the Fiesta, and the Mini Cooper. She learns that all three are considered "subcompact" cars. This new knowledge is considered superordinate learning because it resides on a higher level of understanding of what she already knew.*

Resources:

- http://www.mhxml.com/SC/Learning.htm
- http://cmap.upb.edu.co/rid=1158847653531_1362525697_19853/Ausubel's%20theory.cmap

85. **Synaptic pruning:** the normal elimination of weak cognitive functions during early childhood so that stronger ones can be created and expanded.

Example:



Resources:

- http://www.alleydog.com/glossary/definition.php?term=Pruning%20Process
- https://faculty.washington.edu/chudler/plast.html

86. **Timeout:** Eliminating an activity or item that a subject enjoys by removing the person or item from the environment in order to promote a change in behavior. Used by behaviorists to shape behavior. Typically seen as an anger management tool but can also be used to promote learning in another way.

Example: *Jed has been yelling at his brothers. To stop this behavior his parents put him in time out. Jeb is told to go to his room until he can learn to stop yelling at his brothers.*

Resources:

- http://healthypsych.com/psychology-tools-how-to-take-time-out/
- http://www.child-psych.org/2011/05/how-to-effectively-implement-time-out.html

87. **Tuning:** the process of altering knowledge of how to perform a behavior. One of three modes of learning proposed by Rumelhart and Norman.

Example: *Jemma runs in her boots. She learns that running in tennis shoes is more effective. She tunes her knowledge on how best to run and uses tennis shoes.*

Resources:

- http://www.dsoergel.com/UBLIS571DS-06.1a-1Reading10RumelhartAccretionTuningAndRestructuring.pdf
- http://www.instructionaldesign.org/theories/modes-learning.html

88. **Vicarious Learning:** developed by Albert Bandura, this concept is a model of learning that occurs when individuals remotely watch or hear information that is not in the vicinity of their location.

    Example: *I learned how to operate my car stereo by watching YouTube videos of others operating their stereos.*

    Resources:

- http://www.learnlab.org/research/wiki/index.php/Vicarious_learning
- http://www.alleydog.com/glossary/definition.php?term=Vicarious%20Learning

89. **Working Memory:** this is a term used similarly to short-term memory, however the two are a bit different. At this particular stage of learning, information that is placed in working memory is used for comprehension and reasoning. Like the name suggests, working memory is where the grunt work is done in learning processes. Lots of information processing happens here before any new information is stored permanently.

    Example: *When I am given a task to compare and contrast working memory with short-term memory, I must use my working memory to acquire the necessary information and process it by sorting and determining how best to present it. All of this requires complex cognitive reasoning done in my working memory.*

    Resources:

- https://www.youtube.com/watch?v=UWKvpFZJwcE
- https://www.understood.org/en/learning-attention-issues/child-learning-disabilities/executive-functioning-issues/5-ways-kids-use-working-memory-to-learn

90. **The Zone of Proximal Development (ZPD)**: The gap between what a learner is knows and what the learner is capable of learning with assistance. This term is sometimes used in conjunction with scaffolding. See: Scaffolding

    Example: *The zone of proximal development for little Jubilee's pronunciation of daddy is the difference between "dada" and "daddy."* Outside of this zone is her being able to use the word in a complete sentence.

    Resources:

- http://www.simplypsychology.org/Zone-of-Proximal-Development.html
- http://www.learnnc.org/lp/pages/5075