

Discuss the
behaviourist and
cognitive theories of
learning



This paper will discuss both behaviourist and cognitive theories. It will comment on both theories and apply them to a classroom setting. The paper will look at classical, operant and social theory of learning. Behaviourism developed its principles from the work of Pavlov and Thorndike, namely classical and operant conditioning. Hill (2003) states classical conditioning is the process in which people learn to associate reflex responses with certain stimuli. Pavlov found that dogs would start salivating before the food was introduced to them. Hill (2003) affirms Pavlov found for learning to take place, the two stimuli had to be presented close together in time. If the time between the appearance of the neutral stimulus and the appearance of the unconditional stimulus was too large then learning would not take place. The conditional stimulus will result in a conditional response. Flanagan (2001) asserts, some features of classical conditioning include; extinction, generalisation, timing and discrimination. Within the classroom it is important for teachers to ensure students only associate pleasant and positive emotional responses with educational situations. Classical conditioning can be seen as an explanation for the development of school phobias: if a student experiences bullying at school then it is more likely that the student will associate school with fear. Schools should be pleasant environments where learners can experience positive emotions. Teachers can implicate this in the classroom by avoiding punishment and humiliation as outlined by Fontana, (1995 cited in Gadsdon et al 2005). Watson and Rayner, (1920 cited in Flanagan 2003) applied this conditioning to humans in the case of 'Little Albert'. He was conditioned by pairing the presence of a rat with a loud noise, creating a conditioned emotional response. Albert's fear widened to other white furry things such as wool and Santa Claus' beard.

<https://assignbuster.com/discuss-the-behaviourist-and-cognitive-theories-of-learning/>

Classical conditioning therefore, only works because of the importance of reinforcers. On the other hand, Operant conditioning involves voluntary behaviours, "operant conditioning occurs when organisms learn to associate particular behaviours with particular consequences" (Braid et al 2009). The principles of operant conditioning were first explored by Thorndike and then more in depth by Skinner. Hill (2003) explains, Thorndike studied the way cats would escape from a puzzle box through trial and error. Thorndike found that any response which led to the needed consequences was more likely to occur again. Operant conditioning can involve positive reinforcement, negative reinforcement or punishment. Skinner, (1938 cited in Braid et al 2009) studied rats to see if they could learn through operant conditioning; placing them in boxes containing levers, pushing the lever provided food. Operant conditioning within an educational setting has various types of influencers which can be used to alter a student's behaviour. These can be categorised as intrinsic and extrinsic factors. In addition, extrinsic factors can be divided into social or materialistic causes. Public praise and approval in the classroom, for example; ticks, gold stars, stickers, are all extrinsic reinforcers designed to modify a student's behaviour in a positive way. If the praise was administered in private then the praise is labelled as intrinsic. Contrasting to classical conditioning, punishment and exclusion can be employed to modify a student's behaviour; withdrawing rewards and imposing punishments such as reprimand and exclusions are all negative reinforcers. However, a criticism to operant conditioning is that experiments were carried out on non-human animals; therefore explanations for their behaviour may not be appropriate for more complex human behaviour. Also, it does not consider cognitive development which makes the theory

<https://assignbuster.com/discuss-the-behaviourist-and-cognitive-theories-of-learning/>

deterministic. Behaviour can be shaped; an example of this is language learning. Hill (2003) states, the behaviourist Skinner argued that human language is erudite through operant-conditioning principles, as parents selectively reinforce and shape their child's babbling, which are in turn shaped into proper words, phrases and sentences. Another behaviourist factor is the social learning theory. Cardwell and Flanagan (2009) assert the principle of this theory, is that people can learn through observing the behaviour of models, mentally rehearsing the behaviours and then later imitating them in similar situations. The most notable research carried out on this theory was by Bandura in 1961. Cardwell and Flanagan (2009) maintain Bandura's study was centred on children aged between 3 and 5. Half were exposed to adults acting aggressively towards a Bobo doll. When the children came into contact with the doll they repeated the aggression they had seen earlier. The other half who seen adults not showing any aggression; showed no aggression towards the doll. Hill (2003) adds, Bandura and Walters suggest that behaviour is not only learnt from the environment by direct reinforcement, but through the process of modelling. Important sources of modelling are the family, peer groups and the media. Children see others as role models they imitate and copy, children will copy because they will get a reward or they will get punished. Social learning theory covers a wider range of explanations than classical and operant conditioning. Cardwell and Flanagan (2009) confirm social learning theory includes effects of direct and indirect reinforcement and the importance of cognitive factors. Conversely, social learning theory is not a complete explanation of behaviour, Bandura acknowledged other factors such as genetic influences. Also, being sanctioned can actually increase poor behaviour. Bandura's <https://assignbuster.com/discuss-the-behaviourist-and-cognitive-theories-of-learning/>

research using the Bobo doll suggests observational learning in the classroom can occur in several ways, for example, demonstrating a difficult task to a learner first to procure similar behaviour from the pupil. Gadsdon et al (2005) state, seeing a peer carry out a task before hand consequently gives the learner the confidence to try it themselves, especially if it received praise from the teacher. However, Gadsdon et al (2005: 20) argue, " not all reinforcers are administered by the teacher. Peers themselves have an effect on how the learner behaves". Despite being told off by the teacher, if the learner gains approval from peers, then others may choose to misbehave to gain the same social reward. Fontana, (1995 cited in Gadsdon et al 2005) laid out a number of practical implications to offer the best educational practise for teachers. Some examples which show definite links to the three theories of behaviourism are; to make lessons interesting and relevant, be consistent and fair, don't be over familiar and convey confidence and good organisational skills. Cognitive development is the study of how mental activities develop. The cognitive developmental approach focuses on how thinking changes in age-related stages. Flanagan (2001) affirms the main essences of Piaget's theory are as follows; there are qualitative differences between child and adult thinking, biological approach and language is the outcome of a generalised cognitive ability. Alternative cognitive structures increase with age: schemas and operations. Invariant cognitive structures are assimilation and accommodation. The development is 'driven' by disequilibrium. Thus, learners go through different stages of development. The four main stages in cognitive development are; the sensorimotor stage aged birth to 2 years, Cardwell and Flanagan (2009) tell us that Piaget investigated children's lack of object performance by hiding an object under

<https://assignbuster.com/discuss-the-behaviourist-and-cognitive-theories-of-learning/>

a cover. He found that at 0 to 5 months an object will not be searched for. At this stage they are ego-centric and object-permanence. However, Bower and Wishart, (1972 cited in Cardwell and Flanagan 2009) argue with Piaget's theory. They offered an object to babies aged between 1 and 4 months and as the child was about to reach for the object, they turned off the lights. When observed by infra-red cameras, the babies were seen continuing to reach for the object. The second stage is the pre-operational stage, aged 2 to 7 years, Piaget and Inhelder (1956 cited in Cardwell and Flanagan 2009) carried out their 'three-mountain' experiment. Four year olds were shown a mountain scene and were tested to see if they could correctly describe it from different views; they failed and tended to use their own views. On the other hand, Hughes demonstrated that 3.5 - 5 year olds could hide a doll from two policemen dolls successfully, 90% of the time. The third stage is concrete operational stage, aged 7 to 11 years, Cardwell and Flanagan (2009) confirm Piaget believed only a child of the above age could recognise that liquid contained in a short wide beaker could be the same amount as in a tall thin beaker. In contrast McGarrigle and Donaldson, (1974 cited in Cardwell and Flanagan 2009) state that children between 4 and 6 could conserve number transformation. When two rows of counters were put in front of them and a naughty teddy disarranged one row, they could still see that the rows had the same amount of counters. The fourth stage is formal operational stage, 11 onwards, according to Cardwell and Flanagan (2009) Piaget carried out an experiment where children were given a string and a set of weights and asked to determine the swing. The task could be carried out systematically. Gladwin (1970, cited in Cardwell and Flanagan 2009) has

questioned the suitability of Piaget's experiments for testing non-western cognitive development. Piaget's theory only applies to western people.