XRAYING OPERANT CONDITIONING LEARNING THEORY AS A CLASSROOM MANAGER AND PROMOTER OF (MUSIC) LEARNING

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Introduction

Behaviourism learning theories are most often utilized in the creation of instructional environments suitable for all round development for the learner. These theories, however were developed when learning was not impacted through technology. But over the last twenty years, technology has reorganized how people live, how they communicate and how they learn. Hence Siemens(2014), opined that "learning needs and theories that describe learning principles and processes should be reflective of underlying social environments." Learning theories derived from behavioural psychologies were employed as one of the basis for music education research and practice by educators, psychologists, theorists and researchers. According to Teatle and Cutietta (2004);

> *These contributions, mostly influenced by educational psychologists, began with the educational and societal transitions of the 1960s. Interest in learning theories gathered momentum during the years of the Ann Arbor Symposia and continue to be impacted technological advances, the resurgence of interest in 'learning through doing' and related to it the application of 'situated learning' to the study of music learning.(p.280)*

Taetle and Cutietta (2004) had stated that:

> *Numerous of theories ground research and practice in the domain of music.As theories of psycho-acoustics guide the construction of a concert hall, theories of information and expectancy suggest to composers a listeners capacity for music appreciation, theories of musical preference affect a concert programme's decision making*

and theories of measurement influence the construction of a musical aptitude test.(p.279)

In music education, theories of learning have contributed to an understanding of how the learning processes information and through corresponding instructional theories have caused change in instructional practice. Deweck in Taetle & Cutietta (2004), affirmed that "theories of motivation and recent theories of Intelligence assist teachers in eliciting student productivity.'' (p.279) Learning theories have contributed to advances in thinking about educating and teaching the learner in settings for formal schooling. Some of these theories have found acceptance and applicable in research on music learning as well, and have impacted music educators thoughts on how to sequence instructions in the classroom. The different degrees of emphasis on behavioural thinking have shaped the models used to explain how a child learns and hence to sequence the instructional steps deemed fit for effectively teaching the learner.

Unfortunately, these theories of musical learning conceived from musical domain are less prevalent even though they may have the potentials to enhance music educators' understanding of the unique process of music learning. Moreover, there is an awareness of the need to individualize instructions, work with each student's pace or strengths and provide different sequences of instruction for different groups of learners. When students continue to fail in a particular topic or subject, if examined well, it will be observed there is something not being done well. There are certain attitudes that students exhibit in the classroom that need to be tackled to avoid destruction of education set goals. Hence, the need to adopt the operant conditioning learning theory to promote learning and for classroom management; a teaching strategy that are meaningful to the learner. It is on this ground that this paper aims to illustrate how reinforcement and punishment could be utilized in the classroom to ensure effective and efficient teaching and learning experiences.

Psychologists' Concept of Learning

Psychologists have tried to explain what constitutes learning. Apparently, what happens when learning takes place usually occurs in the learner's head. But since mental events are not very accessible and sometimes not accessible at all, most psychologists have focused on observational behaviour as basis for inferrring that

learning has occurred. In order words, only observable changes in behaviour justify the inference that learning has occurred. According to Ebenebe & Unachukwu (1995), "some psychologists focused on observable behaviours as indicators of learning while others emphasize the mental process which is not directly observable" (p.3)

Teatle & Cutietta (2004) pointed out that ''some others focus on reflective practice and 'learning through doing'' (p.285) Ezeanolue, in Onwuekwe (2017) diversely cited the concept of learning as the following:

> *An adaptation to the environment".The progressive child moves from one environment to another.The ability adapt to new environment means the has learned the characteristics of that new environent and has successfully adapted or adjusted to it. This is learning. Secondly, he went on ,learning can be defined as "a mental process".Before an individual learns ,he must first think. Through thinking, there is an internal change which is evidenced by an observable and perhaps measurable behaviour signifying an improvement on the previous behaviour. External behaviour of the individual emanates from mental process. Thirdly, acquisition of knowledge, skills and attitudes. This definition indicates that before learning can be said to have occured, the learner must have registered some facts, skills, and attitudes in his long term memory, the store house of knowledge. Moreover, learning can be defined as a modification of behaviour. This means that an undesirable behaviour or idea can be regulated to suit life's changing pattern. Furthermore, learning is an elimination of errors. Before learning occurs or during the process of learning several behavioural errors maybe encountered. With effective learning taking place, this errors gradually decrease. Many psychologists feel that the most comprehensive definition of learning is that "learning is a relatively permanent change in behaviour resulting from activity, training or experience." The last word indicates that learning is also experiencing. However, the comprehensive definition above have three distinct components: (a) That learning is a change in behaviour, but this component is not complete by itself. This is so because not all changes in*

> *behaviour can be regarded as learning. When a child is born, his behaviour or actvities gradually change from sitting to crawling, to standing,to walking and to running. This are certainly changes in behaviour but they cannot be reguarded as learning. They a developmental changes in behaviour. (b) The change must be relatively permanent. Momentary changes in behaviour cannot be regarded as learning. A change in behaviour that can be reguarded as learning must persist for a span of time. (c) The change must be due to activity or training . Changes due to fatigue or frustration cannot be regarded as learning. Changes due to drug addiction cannot be regarded as learning. Changes due to alcoholic drink cannot be regarded as learning. Emotional changes in behaviour cannot be regarded as learning. Change of behaviour due to accidents cannot be regarded as learning.(p. 18)*

The study of learning in a scientific manner began in the late Nineteenth Century. Using techniques borrowed from the physical sciences, researchers began conducting experiments to understand how people and animals learn. The result is that psychologists developed learning theories to explain how individuals learn. One of which includes the Behavioural Learning Theory

Behavioural Learning Theories

Behavioural learning theories emerged from an effort to move away from the humanistic tradition of analysis through introspection and interpretation. According to Bower & Hilgard (1981), for behaviourists:

> *learning is change in a subject's behaviour or behaviour potential to a given situation brought about by the subject's repeated experiences in that situation, provided that behaviour change cannot be explained on the basis of the subject's native response tendencies, maturation or temporary state' (p. 11)*

The bahaviourists accept learning as a change in behaviour as a result of experience. Ebenebe & Unachukwu (1995) observed that:

> *This change in behaviour is brought about as a result of stimuli being related to responses according to certain mechanistic principles called conditioning. They further explained that "for them what causes learning to occur is the stimulus (stimuli). The*

> *stimuli (environmental agents) act on the learner and cause him to respond or increase the probability of a response of a given types. Behavioural theories thus see learning in terms of connections between stimuli and responses or between responses and reinforcement. (p.7)*

In Kendra's viewpoint,

> *Behaviourism also known as behavioural psychology is a theory of learning based on the idea that all behaviour are aquired through conditioning. Conditioning occurs through interaction with the environment. Behaviourists believe that our responses to environmental stilmuli shape our actions. According to this school of thought, behaviour can be studied in a systematic and observable manner regardless of internal mental states. Basically, only observable behaviour should be considered. Strict behaviourist believe that any person can potentially be trained to perform any task, regardless of genetic background, personality traits and internal thought (within the limits of their physical capabilities) it only requires the right conditioning .*
>
> (Kendra, https://www.verywell.com accessed November 13, 2017)

Basically, this implies that behaviourists take cognizance of the role played by environment on an individual's learning. This comprises the learner, the learning process and the situation. It is the stimulating and challenging environment that learning occurs. Wilson & Myers (2000), asserted that "although goals of behaviourism realize a close relationship between environment and organism and emphasize active learning; action is ultimately determined by environment rather than by self." (p.57) According to Taetle & Cutletta (2004) the bahavioural model has as its base the linear connection between stimuli that trigger responses. This model allows the researcher to look for those external forces that increase the likelihood of desired behaviours. These models are useful when one studies group or individual behaviour in a variety of instructional setting." (p.280)

In view of the above submissions, for effective and efficient teaching and learning experiences, it is pertinent to consider the age, intelligence and environment of the learner as well as the strategies to employ, if the expected outcome must be achieved. It is also noteworthy that behavioural learning theories in particular have led to research not just on music learning but also teaching

techniques, instructional strategies, sequencing of instruction and student motivation and attitudes in the classroom.

Skinner's Operant Conditioning Learning Theory

Operant conditioning sometimes referred to as instrumental conditioning is a method of learning that occurs through reinforcements and purnishments. Through operant conditioning,an association is made between a behaviour and a consequence for that behaviour. When a desirable result follows an action, the behaviour becomes more likely to occur again in the future. Responses followed by adverse outcomes, on the other hand, become less likely to happen again in the future .In line with the above, Kendra opined that:

> *Skinner described operant conditioning as the process in which learning can occur through reinforcement and purnihment . More specifically by forming an assocition between a certain behaviour and the consequences of that behaviour you learn. For instance , if a parent rewards their child with praise everytime they pick up their toys, the desired behaviour is consistently reinforced . As a result, the child will become more likely to clean up messes. Kendra also highlighted that reinforcement schedules are important in operant conditioning. This process seems fairly straight forward – simply observe a behaviour and then offer a reward or purnishment . However ,Skinner discovered that the timing of these reward and purnishment have an important influence on how quickly a new behaviour is aquired and the strength of the correspounding response. Continous reinforcement involves rewarding every single instance of a behaviour. It is often utilized at the begining of the operant conditioning process. But as the behaviour is learned, the schedule might switch to one of a partial reinforcement. This involves offering a reward after a number of responses or after a period of time has elapsed. Sometimes partial reinforcement occurs on a consistent or fixed schedule. In other instances, a variable and unpredictable number of responses or time most occur before the reinforcement is delivered.*
> *(https://www.verywell.com>behavior accessed November 13, 2017)*

This implies that reward can be used as much as possible while teaching in the classroom to encourage the students to participate while they are learning. Partial reinforcement could be utilized after the evaluations of the week's work and the end of term's work to sustain the student's interest for the subject.

Educational Implications of Operant Conditioning

From the general viewpoint, the learner must do or operate in order to learn. When the learner is involved and performs appropriately, he/she would be rewarded or reinforced positively; but if the learner behaves inappropriately, he/she will attract negative reinforcement or reward. Reinforcement depends upon the activity or the response of the learner. This implies that reinforcement is contingent upon the learner's activity or participation. It is observed that the operant conditioning theory emphasizes response variation because it is the learner that needs to vary his/her activities in order to have proper understanding.

Effects of Reinforcement (Rewards)

1. Praise, if correctly used can increase intrinsic motivation by being informational.
2. Avoid tangible rewards for something the students already find interesting.
3. Rewards may decrease intrinsic motivation when given for simply engaging in an activity.
4. Rewards are contingent upon meeting a standard or advanced level of performance.

Applications of the Operant Conditioning to Promote Learning

This is the systematic use of reward and punishment to increase the occurrence of the desired behaviour and to decrease the undesirable behaviour respectively; ensuring effective learning through a judicious use of reinforcement. The Skinner's operant conditioning uses both positive and negative reinforcements to encourage good and wanted behaviour whilst deterring bad and unwanted behaviour. The operant conditioning can be used in variety of situations, and particularly effective in the classroom environment. A simple way to shape behaviour is to provide feedback on learner performance, for example, praise, compliments, approval, encouragement, and affirmation. One of the main ways of reinforcing behaviour is through praise as observed in the course of teaching. As the following examples illustrate:

1. Encouraging students' study life, students need to see the direct

consequences of using them. One means to do this is to give them practice such as band or musical piece practice using their own strategies and then require them to study some materials using the new strategy you are teaching. The immediate and direct feedback that shows a higher grade is a positive reinforcement. Praise or extra credit could be given to students who demonstrate that they are using the new strategies to try and shape their behaviour. The consequence should come quickly after the behaviour which is what makes this a challenge and interesting.

2. To strengthen a behaviour, provide a consequence an individual finds rewarding. For instance, giving a student gift item each time homework is done in any area of music theory, it is a reward; there is every tendency to repeat this behaviour in the future, thus strengthening the behaviour of doing the homework.
3. To promote active participation of student while learning or performing any music piece or instrumental piece, commendations, or compliments should be given to student who displays the art of mastering in the skills of musical performance. Moreover, gold stars, praise and good grades could be given to a piano learner who uses the right fingering in the skill of piano playing or being able to identify the keynotes of the keyboard perfectly well, so as to foster active participation of the learners.
4. To encourage students to answer questions in the class, the students should be praised for every attempt made whether correct or not, rather than shun or be harsh on the student, suggestively ask for any friend to help the friend out. In this case the student will not feel bad or ashamed but smile. Better still, gradually praise only the students whose answer is correct, or over time, praise only the exceptional answers to avoid misappropriation.
5. Higher order questions should be arranged in a way that the responses are always correct and thence receive positive reinforcement.

Operant Conditioning in Classroom Management

In the conventional learning situation, operant conditioning applies more to the issues of class and student management, rather than to learning content only. There are indeed some classroom behaviours that need to shape in order to decrease the occurrence of undesirable students' behaviours. For instance;

1. Student could receive negative reinforcement or punishment for using the phones while the lesson is going on. The measure against this might mean the

student loosing attendance points or the phone. It is observed that cell phones distract students from concentration.

2. If a student is given an assignment with the condition of paying a fine or receiving punishment if failed to do the assigned homework, there is the likelihood of he/she avoiding paying or being punished, thus strengthening the behaviour of doing assignment.
3. Unwanted behaviour such as dominating class discussion randomly and tardiness could be extinguished through suggestibility, but if it persists, then use negative reinforcement. This is the removal of an adverse stimulus which is rewarding to the student. Negative reinforcement strengthens behaviour as it can stop or remove an unwanted behaviour.

There are other undesirable behaviours that occur in the classroom that need other measures to shape such behaviours.

Conclusion

The work of Skinner was carried out in a view to discovering how reinforcement can enhance learning. The focal point of this theory is reinforcement, designed to illustrate the shaping of habits and how reinforcement could be used in classroom to ensure effective learning. Operant conditioning learning theory is increasingly influential in the organization of classroom teaching and learning. They can be applied to teaching and learning in music education for effectiveness as the theory appeals to the modern views of learning and knowledge; hence, the need to reflect on the practices, so as to apply the ideas to teaching and learning music in the classroom.

To improve in all spheres of music, it is imperative to adopt the operant conditioning learning theory as it emphasizes habit formation and has the ability to increase desired outcomes as well as decrease undesirable behaviours, conversely, severe adverse consequences on the set goals of education. Moreover, the validity of any learning theory seems to depend on how immediate it can be translated into instructional practice. This, the behaviourism has had the greatest effect. With this in place, there is need for immediate application of this theory to classroom music learning for meaningful and effective learning.

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