

THE ROLE OF REWARD AND PUNISHMENT ON STUDENTS ACADEMIC PERFROMANCE IN SECONDARY SCHOOL EDUCATION

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Abstract

Reinforcement or motivation is a term of very complex dimensions. It is known to include the rewards and punishments among many other interacting drives, forces and incentives which affect or influence student's learning. 'Extrinsic' forms of motivation like rewards and punishments have always been used by teachers/educators to correct or stimulate certain forms of behaviours. Yet, what their effects and consequences are, whether they facilitate or hinder learning and to what extent, how they operate to increase, if at all, the efficiency of learning and many such allied questions have remained largely unanswered. Or, their answers have generally been improvised, for the most part, from intuition, conjecture or just intelligent guess- work rather than on research findings. The purpose of this paper, therefore, is to examine these questions in order to discover (uncover, to be more specific) the role which rewards and punishment seem to play in motivating school learning. For purposes of analysis, rewards will include material and symbolic rewards like praise and marks, and punishment will include physical punishments, blame, sarcasm and ridicule.

Keywords: Reward, Punishment, Academic performance and Reinforcement.

Introduction

Reward and punishment are regarded as a complete important means through which a teacher can maintain his or her class discipline in the secondary schools. The classroom, as it is asserted, is at once the cradle as well as the grave yard of genius. Whatever the truth of this assertion, society no doubt expects certain outcomes from the classroom situation for the student. And the student's work at school is not merely determined by his intellectual capacity, his knowledge and abilities in various subjects, but also by motivation to learn. If the student is motivated strongly enough, his desire to learn may prove strong enough to keep him from the ranks of the swelling army of school dropouts. Furthermore, if students' attainment of a goal is regarded as an important purpose of education, then the factors that provide the best learning situations should be understood as an integral part of educational theory.

Scholarly Perspectives to the Discourse

Ivan Pavlov, a Russian physiologist is the first person who coined the word of reinforcement. He said that an unconditioned stimulus was a likely reinforcer, when combined with some other natural stimulus consist reinforcement. Reinforcement is a great source of motivation by gaining the required results. Reinforcement is identified by the presentation of reward (Wise, 2004). A reinforcer is any specific thing after its presentation increases the possibility that behaviour occurs again and again or behaviour becomes strong after removal or minimization of any specific thing or unfavourable situation. For the first time it was Skinner who recognized positive and negative reinforcers as two distinctive types of reinforcement (Labrador, 2004).

The skill of reinforcement which is the focus of this study was clearly illustrated in B. F. Skinner's study of Operant Conditioning. Skinner was particularly interested in showing the effects of the reinforcement skill as the basic principle involved in the formation of associations, especially as it relates to teaching and learning. In this landmark study by Skinner as described in (Nwachukwu, 2000), series of experiments were developed to observe the effects of presentation of foods (reinforcement) on a hungry rat. The actions (or responses) of the rats were reinforced by allowing the dropping of food into the cage when the bar is raised and the increased activity of the rat was noticed through the rate at which the rat presses the bar. On presentation of the food when the bar was pressed under certain condition, such as immediately after ringing a bell, also made the rat change to pressing the bar when the sound of the bell is heard and the rate of pressing of the bar at any other time dropped noticeably.

Later intervention by Skinner to reinforce according a routine schedule by deciding to reward the rat every second or third time the bar is pressed and the bell was ringing also showed that the pattern of reinforcement causes alteration of the pattern and rate of response from the rat as the rat learnt to press the bar more frequently when its behaviour was reinforced. The response rate and capabilities of the rat, if not continually reinforced, would have gone into extinction. The teacher is expected to apply the appropriate teaching skills to enable them present their lessons effectively to achieve its specific objective(s). The lesson from Skinner's study clearly shows that reinforcement strengthens acts which immediately precede it and teachers' awareness of the impacts reinforcement will have on behaviours immediately preceding its application is an important step towards the effective application of this teaching skill. Teachers' ability to recognize only correct responses is vital because it will prevent students from associating the reward with inappropriate responses since the teacher should make students aware of the particular aspect of their behaviours that is desirable.

Positive reinforcement is such type of reinforcement in which a desirable or any agreeable result follows a reaction and makes it possible that the reaction will happen in future as well. Reward system is commonly used in positive reinforcement. Basically the idea of reward is concerned with the cognitive system of human being which attempts to control and adjust behavior by incorporating effects of pleasure. In educational field verbal praises, food, or a favored item (such as a break on a swinger a toy) are used as a reward (Reinke, Merrell, Lewis-Palmer, 2008). This type of reinforcement increases the possibility of behavior that may be occurring again and again (Gazzaniga, 2003).

Awards (certificates, trophies, scholarships), are always a great positive reinforcement to continue to push forward and keep children energetic. You should consider the use of awards and certificates to reward and motivate your children to do well in all aspects of life. If they complete their chores, reward them with a certificate. If they've done well in school, you can give them award for their good grades, too (Mangal, 2007).

The use of praise regularly has great effect on elementary school children and is positively interrelated with self-perceptions of ability among them (Lepper, Corpus&Iyengar, 2005) due to which they feel pride and expected more success in the future. Verbal praises like good, excellent, outstanding, great, awesome inspire students and encourage them for learning (Benedict, Horner, Squires, 2007). In other words, students should be made to know exactly what behaviour(s) of theirs that is being reinforced so as to encourage them. The spontaneity of reinforcement is a very important aspect of the learning situation that is often overlooked by most teachers. The best time to encourage students to repeat or continue a particular response or desirable behaviour is immediately following the response and teachers should be able to recognize within the classroom setting, desirable responses and reinforce them immediately following such response(s). If what needs to be reinforced is a written work, then the scripts should be returned within a few days so as not to delay the reward for too long because the longer the scripts and results are delayed the less the reinforcing value will be to the students. The implication is that if reinforcement is delayed for too long or feedback is completely withheld, the students will not know which behaviours or responses to be repeated and which should be extinguished. It is therefore important for teachers to recognize that effective application of the reinforcement skill is a crucial aspect of the learning process and that feedback should be valued, frequent and fairly immediate.

The investigation so far made into this problem have given controversial results, and many of them have been concerned with the study of animal relatively few with human beings. Most of the earlier investigations, notable those of E.L. Thorndike, indicated that reward “stamps in” bonds, association or connections, while punishment weakens, or “stamp out” such connections. Learning is thought of as a reversible process. Just as reward causes it to proceed in a forward direction, punishment closes them, and the one action is assumed to be just as immediate and direct as the other.

Later investigations, on the contrary, ascribe a greater stimulating effect to rewards. The studies show a similarity on the point that a group of students given rewards have, to a greater extent, increased their achievement compare with the results of groups punished or controlled. This somehow revised hypothesis of the way in which punishment operates now integrates the views of Thorndike and Pavlov. They stated that punishment achieves its effect of inhibiting action not by the direct stamping out of S – R bonds, but by the intermediation of fear.

(Mowrer, 2016), summarizes the results thus, “An action, previously strengthened by reward, which is followed by punishment, produces certain stimuli, both internal and external to the organism, which, by virtue of their contiguity with the punishment takes on the capacity to arouse fear; and when the organism subsequently starts to repeat such an action, the resulting fear produces a conflict with the drive or motive underlying the original act. If the fear is sufficiently strong, the act will, in consequence, be inhibited, or at least in some fashion modified”.

Theories of Rewards and Punishment

Thorndike’s earlier and the later experimental studies of others in this field report, increase efficiency in learning, at least up to a point, when students are given monetary or other material rewards. These studies tend to show that the child responds to cue and is rewarded for it. Rewards or reinforcements are thought to lead to tension reduction through satisfying drive conditions like learning is thought to be actually facilitated more than would normally have been the case. Thus, if a child knows that they will get a reward for completing a certain task he will be motivated to work hard to obtain the reward. Rewards may indeed lead to a change of interest in actual life situations so that an activity originally disliked becomes liked, at least

for the reward that will come out of it for the time being and the interest may be sustained for some time beyond the immediate present.

According to (Benedict, Horner, Squires, 2007) the use and effect of rewards seem to go deeper than simply attaching a pleasant tone to an activity. In so as it is not inhibitory in its effects but is positively reinforcing, the actual reward permits more freedom of action to the individual. Students have been known to meet the teacher's challenge and produce excellent work just because they expect to adult (Teacher or Parent). Approval or praise, or obtain good marks. An experiment by (Hurlock, 1998) on that relative effectiveness of these forms of rewards showed that school mathematics improved most under praise next under reproof, and least when the child was one of the ignored group. Although the results of such an isolated piece of research cannot be conclusive, since other motives besides praise and blame may have been aroused to strengthen or weaken connections. Similar studies have however tended to yield the same results.

(WISE,2004), observed interestingly that in a recent classroom study in the United States, for example, three teachers were selected to follow three different methods. The first teacher used fear and domination to motivate his students; the second merely presented his lessons; the third used a positive warm approach, encouraging the students work with warm praise. Both the first teacher and they third motivated their students to high marks. The second teacher's class did worst. But the students motivated by fear stopped work as soon as the teacher left the classroom, fought among themselves, were easily confused and tensed. The praised group continued to work even when the teacher was away and got along better as a team. Again, there may have been other unknown factors impinging on the research situation. For instance such things as the basis of distinction, between the three classes the personality of each teacher and the relations between him and the students in each particular group may have played a significant part in the results. But the fact that there is a high degree of correlation between several such experiment which seems to suggest that rewards facilitate learning, at least in the short run.

Clapping is a quick way to get the desired results from students while motivating them towards teaching-learning process. Clapping of the teachers revitalize students to show good performance in their school activities(Jordan, 1986).The more positive interpersonal relationships are, the greater the psychological health of the individuals involved through the internalization of positive relationships, direct social support, and expressions of caring (Schultz & Switzky, 1990).

Token economy is a type of such system in which marks as rewards are delivered to students on their educational performance which can be used for modifying students' behaviors. Token Economy like stickers, stars, pictures, smiley faces, money, book and pen as a positive reinforcement persuade children for getting education (Weiner, 1979)

Negative reinforcement is such type of reinforcement in which "something which is unpleasant becomes removed and in turn the desired response becomes occurred". Reward system is used in negative reinforcement because when unfavorable thing is removed then a person is rewarded for a favored behavior (Conroy, Al-Hendawi, 2009).So the removal of such thing is a reward. In educational sphere like the removal of negative feedback and teasing in a class facilitate students greatly (Kazdin, 2001).

Teasing in a class: Classmate's bulling or teasing have a significant impact on students' academic performance, it cause distraction among children mentality, and disperse their

concentration power which cannot focus on schoolwork the whole day in the school. Children's mental health issues, like anxiety and depression are commonly developed due to constant teasing them by their other fellows (Covington, 2000).

It was Pavlov who described the word of reinforcement. He explained its meaning in such way that a relationship among daughter habituated stimuli and its unhabituated parent stimuli became increased due to it. Later on two other psychologists Thorndike and B F Skinner agreed to Pavlov's word of reinforcement which was responsible for increasing the relationship between stimulus and organism response to it (Wise, 2004).

The phenomenon of reinforcement is the central theme to the theory of operant conditioning which is same to the presentation of reward. Reinforcement is a stimulus which is responsible for increasing the chance of response happening again and again. Skinner used reinforcement as a method through which we can control or modify organism behavior which shows stimulus response connections.(Panda, 2002)

Getting a preferred reward by a person or animal after performing a desired behavior is called positive reinforcement. When someone is encouraged or appreciated for any response toward something, a situation of positive reinforcement occurs. At the other hand when an organism avoids or give up any such behavior which cause unrest, is called negative reinforcement (Iqbal, & Khan, 2011).If one takes school classroom, where students interact with each other in different activities, during these practices student learn that which type of behavior are useful and which are threatening for them. There are many examples in which a student deliberately delays himself while preparing for physical education to escape him from some of this class period (Infantino & Little, 2005).

Punishment and negative reinforcement are totally different while comparing both of them, because punishment is caused by some unsocial practices, which is both negative and positive. When someone delivers such practices which are not acceptable to him in response of any behavior, is called punishment, whereas in negative reinforcement, such situation are removed or avoided which cause a threat to the concerned person. It has become proved through experiments that the effect of positive reinforcement is longer than effect of punishment (Fritscher, 2009).

When it is desired to improve children behavior, positive reinforcers are too much effective in this regard. For example, when a student performed good and delivered him a toffee would motivate him towards learning deeply. Thus, toffee is a type of reinforcer while getting good marks in a test is the desire modification in behavior which helps him increasing a desire of good performance in all other school activities (Baranek, 1996).

There are many types of positive reinforcement which includes awards (trophies, certificates, and scholarship), verbal praises (good, great, excellent, awesome, and well done), token economy (stars, stickers, smiles paces, pictures) and clapping and cheering in a class. Negative reinforcement is the removal of any type of stimulus which in turn causes unrest among the children, such as low grade, teacher's criticism, negative feedback and teasing in a class, where as punishment is such type of stimulus which is used for the modification or change in behavior for a time being (Sundberg, Michael, 2001).

Reinforcement theory which is one of the oldest theories of motivation, derived by a behaviorist named B.F. Skinner. This theory widely explains behavior of human being and the way in which we are doing any task and what task we do. In other words the theory is also called as operant conditioning or a behaviorism in the field of psychology. The theory states that "consequences are responsible for individual behaviors or their actions" (Schultz&Switzky, 1990).

Psychologist and economists commonly believe that behavior is formed by its results, which is known as the law of effect. Psychologist believed that animals performed different actions, judges the effects of their actions and tried their best to do such actions which resulted more positively than negatively (Hurtado & Carter, 1996).

It is important to note that when rewards are to regulate learning what the rewards signify is much more important than the rewards themselves. Thus, for example, school marks, grades and material rewards are valued not so much for what they are as what they signify or represent. Rewards are valued for such learned motives as desires for prestige recognition, prestige, exemptions from certain tasks. It is perhaps this aspect of theirs that make them appealing not to the rank and file but to only a small number within the larger group. Most studies done so far on this question (they are as yet quite few) seem in the whole to indicate that success in achievement is a strong motivating force to further action. Students who are successful and who therefore derive satisfaction from a learning activity are motivated toward additional learning. This seems to call for the arrangement of learning situation in such a way that every learner experiences a reasonable degree of success. It may not be an absolute truth that “nothing succeeds like success”, but the teacher would be making the classroom a ‘grave- yard’ of possible genius if he allows continued failure to frustrate the student who is trying his best. This is perhaps one of the strongest arguments advanced in favor of programming.

In this regard, Skinner himself considers reinforcement an important ingredient in learning, and knowledge of the success of a response is an example of this. The more of his time learner spends in making responses that are thus ‘reinforced’ the greater will be the opportunity for this important factor to operate. Every learner at whatever level knows how eagerly he expects to know his performance- marks or grade and comments- after completing a learning task. If the marks are high and comments favorable, he is considerably reinforced and if his expectations are not fulfilled he feels some qualms. This simple experience is a further illustration of the value or rewards in motivating learning whether for adults or children.

The Role of Punishment

Punishment may be thought of as being in gradations varying from spanking or thrashing, as sometimes happens in some Nigerian schools, to ordinary sarcasm, reproof or blame. The relative effectiveness of each type of punishment will depend on the individual child’s personality, his cultural milieu, his relationship with the punishing authority and the situation under which the punishment is inflicted. While it is generally agreed that rewards facilitate learning to some extent, especially if properly used, there is much confusion and controversy regarding the role of punishment in motivating learning. This confusion has led (Stone, 1950) to state, in a mood of sheer pessimism: “The task of resolving apparently conflicting result in the experimental literature on the effects of punishment is all but impossible in the present state of incomplete knowledge”.

Although earlier findings had simply stated that punishing wrong responses eliminated them and speed up learning (a common- sense enough position since one would not continue to do what was punished), later experiments supported by factual observation seem to indicate that the conditioning of fear is the primary consideration and that here it is the onset of a drive and this alone that is mainly important. A hypothesis that emerges from all this is that a weak drive (learning) can be tied to a strong one (fear of pain resulting from punishment or loss of face or prestige resulting from ridicule) to strengthen the motive to learn. In fact, this kind of fear plays a considerable part in the learning of the child- fear of teacher’s criticism, of report cards, of parental reproof at home. It is perhaps correct to infer from the evidence that many students tends to be motivated to do any work at all this way. Even then the fact that mere force plays a

large part in all education (for instance, children are not asked for their consent in taking examinations) may explain why some students would not work without such drive conditions.

Some Major Objections to Punishment

The evidence of research studies indicate that although punishment does suppress a response, mere non-reinforcement is more effective in permanently eliminating an unwanted response. Appropriately combined with rewards, the however, punishment may redirect behaviour: under circumstances such as this punishment may redirect behavior, the response is punished and when the desired behaviors is occurs it is rewarded. Under circumstances such as this punishment may allow the more permanent effects of rewards to become operative, even though its effect may be temporarily disturbing.

Punishment must however be regarded as a temporary drive. Students motivated by fear of punishment will stop work, as has been shown by research studies quoted above, even avoid study once the fear is removed. They will always associate fear of pain with study, and it is not healthy to keep students under a permanent state of siege. Human subjects sometimes have a conception of themselves which makes them feel that it is unworthy of them to be deterred or moved by pain. (Mowrer, 1960) has aptly put it; “there are always the subtle - tide of ego psychology to reckon with, and preservation of self-esteem (prevention of guilty and anxiety) may cause a person to rise above the influence of both rewards and punishments of a segmental nature.”

According to (Mbanefo, 2015), research evidence also supports the view that more severe forms of punishment, like thrashing, (although not allowed in university system) can effectively suppress the punished response of a learner, but they do so by setting up conflicts between the punished response and others evoked by punishing stimulus. Punishment says ‘stop it’ but does not tell what to do, and the result is simply confusion and emotional upset. Under some circumstance, punishment tends to fix the punished behavior rather than eliminate it, and some forms of discordant behavior tend to be aggravated rather than cured. For instance, if a student doing something which he does not understand or is too hard (as often happens in mathematics and many other sciences), he may prefer to face the familiar punishment than face the uncertainty of change and additional frustration. In this regard, therefore, punishment is mortifying, produces anxiety and is fraught with hazards in teacher-student relationship. All the evidence thus point to one conclusion, that it is difficult to use punishment effectively to motivate learning of a more permanent character.

Observations and Conclusion

It is a universally acknowledged fact that reinforcement can bring about positive changes in the behaviour of the learner, if applied appropriately. Both professional and trainee teachers ought to apply reinforcement in a teaching and learning process. Depending on the situation and response from the learner, the teacher in the classroom should apply positive or negative reinforcement when necessary during the teaching-learning process.

Back to the focal point of this work and from observation as a teacher, it should be expected that students will have preferences for teachers’ praise as feedback. While some students may not be too comfortable with praise for their academic performance, others will prefer to be praised as a way of motivating them. There are some other groups of students that prefer not to be praised in public and those that may not want it at all-publicly or in private, while some want it public. Whereas it can be observed that public praise and feedback may produce discomfort and punishment for some students due to negative social consequences such as

bullying, teasing and belittling by other students, these tools are still very important teaching skills that are vital in the teaching-learning process. It is believed that teachers' application of reinforcement enables students to gain confidence in the teacher's explanation and their responses as learners when questions are asked by the teacher thereby enhancing the academic performance of the student in any subject.

However, it has been observed that some teachers do not apply reinforcement skill fully resulting in strong negative influence on students' academic performance. Adequate knowledge of this and other teaching skills can be brought to the attention of the teachers and other stakeholders in education through seminars and other training programmes geared towards updating on current issues in these teaching skills and their applications. The trend at the moment shows that some teachers are yet to understand the meaning of this concept, its application and benefits. Thus, the researchers assume that wrong application of reinforcement (Reward or Punishment) can lead to poor academic performance of secondary school students and may lead to high rate of failure.

Recommendations

Based on the findings of the study and the conclusion reached, the following recommendations were made:

- Teachers should use more than one type of Reward system to prevent mal-adaptive behaviours that may affect students' academic performance.
- Teachers' Reward or Punishment should be sincere so as to achieve the goal of its application.
- Secondary School teachers in various subjects should always apply a variety of reinforcement skills while teaching the students different subjects.
- The stakeholders in secondary school education and teacher training institutes should organize seminars, training programmes and other related activities that will assist teachers to have adequate understanding of the concept and application of teaching skills in general and the reinforcement skill in particular.

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