

TEACHERS' PERCEPTION OF BEHAVIOUR MODIFICATION TECHNIQUES FOR BOLSTERING LEARNING OUTCOMES AMONG SECONDARY SCHOOL STUDENTS

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Abstract

The study investigated into secondary school teachers' perception of the use of differential behaviour modification techniques in bolstering student's learning outcomes. The study used descriptive survey research design. A 20-item questionnaire was used to collect data from a sample of 216 teachers. Data was analyzed using means and standard deviations while the hypothesis was tested using the t-test statistics. The major finding shows that a significant number of teachers agree that positive behavior modification techniques are more successful in bolstering learning outcomes but a lot still depend on the use of aversive or punitive behavior modification techniques which likely have negative influence on students learning outcomes. Use of punitive techniques in the learning process raises anxiety, frustration and hate for learning which breeds maladaptive behaviors like aggression. It was recommended among other things that the teacher should be sensitized, trained and retrained in the proper use of different positive behavior modification techniques and how best to apply them in managing learning outcomes in classroom situations.

INTRODUCTION

Behaviour Modification is the traditional term for the use of empirically demonstrated behaviour change techniques to increase or decrease the frequency of behaviours. This may have to do with altering an individual's behaviours and reactions to stimuli through positive reinforcement of adaptive behaviours as well as the reduction of behaviour through its extinction and/or satiation. First used by Edward Thorndike in 1911, the term behaviour modification is now used in clinical psychology to refer to psychotherapeutic techniques derived from empirical research. It has since then come to refer mainly to techniques for increasing adaptive behaviour through reinforcement and decreasing maladaptive behaviour through extinction or punishment (with emphasis on the former). Behaviour modification is actually a form of Behaviour Therapy that is now known as Applied behaviour analysis. Behaviour modification techniques may thus include a series of teacher-implemented activities and actions aimed at improving productive classroom behaviour. According to Akinade (2012) Behaviour Modification is a process of changing weak, deficit or excessive behavior using learning theories like classical and operant conditioning approaches. It is a psychotherapy that is aimed at identifying and dealing with undesirable behaviour by use of relevant treatment like reinforcement or punishment. According to Zirpoli and

Mellow (1993) behaviour modification is one of the different methods and philosophies of dealing with “inappropriate,” “abnormal,” or “undesirable” behaviour that focuses mainly on observable, describable, and measurable behaviours. The emphasis in behavior modification is on increasing positive behavior rather than just attempting to decrease maladaptive behaviours hence the idea on bolstering learning outcomes rather than punishing poor performance.

According to Zull (2003) Student Learning Outcomes (SLOs) are the specific observable or measurable results that are expected subsequent to a learning experience. These outcomes may involve knowledge (cognitive), skills (behavioral), or attitudes (affective) that provide evidence that learning has occurred as a result of a specified course, programme activity, or process. An SLO refers to an overarching outcome for a course, programme, degree or certificate, or level of attainment at the end of a learning experience. SLOs may thus describe a student's ability to synthesize many discreet skills using higher level thinking skills and to produce something that asks them to apply what they've learned. It encompasses a gathering together of smaller discrete objectives through analysis, evaluation and synthesis into more sophisticated skills and abilities. There is a wide array of modifying learner behavior that can be grouped under

two; those for increasing desirable behavior (positive behavior modification techniques) and those for reducing excessive or maladaptive behavior (aversive behavior techniques). Example of positive behavior techniques include shaping, prompting, chaining, flooding, modeling and stimulus control while those for aversive behavior techniques include aversive therapy, over correction, extinction reprimands time out and proximity control.

Notwithstanding the wide array of these positive techniques, it is not uncommon to find that most teachers still find it much easier to use only coercive disciplinary measures to modify learner behavior. This is based on the belief that it is necessary to cause suffering to teach or like the teacher has to hurt the learner to get an edge over him in order to teach him (Marshall, 2000). Teachers are always on the lookout for deviants who are immediately given punishment that may range from flogging, kneeling down, grass cutting, washing dirty toilets and suspension to outright expulsion depending on the magnitude and perpetuity of the deviant act. The situation is so bad that some teachers don't believe students can be better handled using softer, subtle and more positive means of modifying their learning behaviors. Teachers assume or satisfy themselves with the illusion that they have the control of their students using these techniques. But the irony of punitive or aversive techniques is that the more you

use it to control student's behavior the less influence you have over them and if a teacher begins to have less positive influence over the learner then the learning process is marred. One cannot expect better learning outcomes from such situations. It is therefore necessary to investigate teachers' understanding and use of alternative behavior modification techniques that can bolster learning outcomes in the class.

Statement of the Problem

The researchers discovered in recent times that students' poor academic performance may be attributable to the school teachers' poor student behaviour management. The use of punitive or aversive techniques does not seem to yield any significant success in managing classroom behavior let alone bolstering positive learning outcomes. As rightly observed by Nwokeji and Ezeawurukwe (2009) punishment and aversion elicit pain and coercion that may be counter-productive. The resultant effects on learning outcomes as well as the academic achievement of learners have been a very controversial issue that gives a cause for further research. Teachers still rely on punitive measures that rather instill fear or hate in the learner, notwithstanding that they have better alternatives. It is apt to find out what teachers perceive of the use of positive or aversive means to bolster learning outcomes using psychological approaches like behavior modification techniques in classroom situation. Hence

the problem of the study is to determine the teachers' perception of the influence of both positive and aversive behaviour modification techniques in bolstering students' learning outcomes with the view to propagating the more productive ones.

Purpose of the Study

The purpose of this study is to measure teachers' perception on the use of different behavior modification techniques in bolstering learning outcomes among secondary school students. More specifically, the study is concerned about the influence teachers' perceive positive behavior modification techniques can have on bolstering learning outcomes in order to suggest interventions for re-engineering the teaching professional for higher productivity.

Research Questions

The study was guided by two research questions

1. What will be the teachers' perception of the use of positive behavior modification techniques in bolstering students' learning outcomes?
2. What will be the teachers' perception of the use of aversive behavior modification techniques in bolstering students' learning outcomes?

Research Hypothesis

This null hypothesis was formulated and tested at 0.05% level of significance.

There will be no significant difference between teachers perception of positive and aversive behavior modification techniques in bolstering students' learning outcomes.

Literature Review

There are many different methods and philosophies of dealing with inappropriate, "abnormal," or "undesirable" behavior but the traditional student disciplining approaches of subduing and hurting in the course of teaching/learning are fast losing their potency even among Africans. According to Nwokeji and Ezeahurukwe (2009) these are no longer successful for many of the young people. In the same vein, Marshall (2009) maintains that people learn better if they feel better and are motivated. According to Zirpoli and Mellow, (1993) behavior modification is based on behaviorist principles which operate on the tenets that behavior is controlled by antecedents, events which occur before a behavior is exhibited, and by consequences which occur after a behavior is exhibited. These antecedents and consequences can be changed in order to increase or decrease the chance that a given behavior will continue to be exhibited. Another fundamental tenet is that behavior, appropriate as well as inappropriate, is learned so it can be unlearned if need be using these scientific approaches.

According Akinade and Adedipe (2004) behaviour modification is based on

operational principles or fundamental ideas given below:

- I. Behavior, appropriate as well as inappropriate, is learned so it can be unlearned if need be using scientific modification approaches.
- ii. Behaviour is a function of the interaction of heredity and environmental variables.
- iii. Learning is inferred from the individual's behaviour; a relatively permanent change in behaviour.
- iv. Behaviour modifiers are concerned with current, specific and precise problems.
- v. A number of techniques can be applied in behaviour modification such as reinforcement, modeling, role-playing, stimulation, systematic desensitization, counter-conditioning and a host of others.

Based on these principles, the teacher as a professional stake holder in the learning process has a great repertoire of guiding principles and techniques which he can harness and draw from for the purpose of molding and modifying learner behaviours to bolster learning outcomes. Of essence is the fact that such learning outcomes are bound to propel the learner towards sound career development and choice.

Behavior modification techniques are therefore aimed at manipulating the antecedents and consequences of behavior so that the likelihood of appropriate

behavior is increased and inappropriate behavior is decreased. Proactive behavior modification, interventions which avoid the utilization of aversive consequences, involve teaching new and more appropriate skills (positive programming). Thus to reduce an inappropriate behavior, an appropriate behavior must be taught as an alternative.

The Institute of Community Integration (1995) observes that in using behavior modification there is need to look at the frequency and the intensity at which the behavior is exhibited, and the rate at which the student is able to learn new behaviors. Some behavior modification techniques are used for increasing desirable behavior while others are used for reducing maladaptive behavior. Examples of behavior modification which can be used to increase behavior are: praise and approval, modeling, positive programming, shaping, token economy, self-monitoring. Methods which can be used to decrease behavior are: extinction, reinforcing incompatible behavior, relaxation, self-monitoring, and shaping. Zirpoli and Mellow, (1993) assert that the least intrusive and restrictive intervention deemed likely to be effective should be chosen when deciding on which technique to use. For example, if a student is likely to respond to verbal praise in increasing assignment completion behavior, it would be unnecessary, and perhaps even detrimental, to implement a token economy in changing this behavior.

This requires ingenuity on part of the teacher and that the teacher puts on his thinking cap always to discern between what can offer optimum learning outcomes for the learner in different learning encounters. This is what Denga and Akuto (2004) term as psychological and educational forces operating together in the classroom which require that the teachers be adequately trained in psychological principles to provide them with a compendium of counseling insights and applications to use in the classroom. The re-engineering of Teaching involves making use of scientific approaches carefully designed to bring about optimum learning outcomes with ingenuity and inventive cleverness.

The Institute on Community Integration (1995) advocates for positive programming as part of any type of behavioral intervention to increase the options in a student's repertoire in order to provide more choices for the student. In essence proactive behavior modification has to do with interventions which involve teaching new and more appropriate skills (positive programming); to reduce an inappropriate behavior, an appropriate behavior must be taught as an alternative. Positive programming is a gradual educational process for behavior change involving systematic instruction in more effective ways of behaving. Positive programming teaches new behavior over time and is based on full functional analysis (Lavigna &

Donnellan, 1986).

Extinction refers both to procedure and behavioral effects. Whereas the procedure involves the removal of the reinforcing stimulus maintaining a particular behaviour, the behavioral effects refers to the decline in frequency of the behaviour. (Akinade & Adedipe, 2004). Its main application in the learning process is attempting to ignore attention seeking behaviour or a mistake prone child as he struggles to read a passage in class. Other excessive behaviours that can be reduced by extinction include noise making, reading frustration etc. The down side to the application of the extinction method is the extinction burst which show by way of temper tantrums increase in intensity of the sanctioned behaviour such that some teachers may fall the prey of yielding to whims of the learner thereby reinforcing even the worse form. The teacher in using extinction to manage behaviour must be well aware of this and withstand it while also attempting to eliminate peer attention from class members.

Systematic desensitization is a gradual process that can employ a learner's fantasy or occur in real life experiences following some marked steps from: training in progressive relaxation, construction of anxiety hierarchies, and the combination of these in the desensitization process (Akinade, 2012). It works by gradually exposing the learner in small steps to the

feared learning situation while actually learning activity that is antagonistic. Teachers can use this approach to handle anxiety induced learning deficiencies and timidity.

Self-Monitoring and Self-management- is the technique that involves observation and recording of one's own behaviour with the aim of managing it positively. It draws its strength from its reactive effect on desirable and undesirable behaviours and their management.

Self-management on the other hand involves self participation in designing and carrying out the behaviour modification programme. The teacher helps the learner to arrange cues and their consequences around him to facilitate the development of the desirable behaviour. In application, the learner can be taught to manage his concentration while in class by putting away all distracting materials like their handsets, pictures and unrelated lesson materials. To encourage his study behaviour at home the learner can be taught to arrange his/her room to create study friendly environment with reading tables and chairs rather than just a bed.

Modeling is an instructional procedure that attempts to prompt imitation of appropriate behavior through demonstration of that behavior. It is an approach that helps the learner to overcome fears and inhibitions by observing models as they confront their

typical learning difficulties. It works by showcasing brilliant learners who can mentor and help deficient students aspire to do more as they watch them perform un-arrogantly. Modeling is useful for teaching new technical and life skills and for reducing academic failure. It is also useful for overcoming excessive and inhibitory timidity. For skill acquisition in particular, modeling proves very useful in the career development process. Like in the industrial training scheme, learners benefit a great deal as they observe others perform their occupational roles.

Shaping has to do with reinforcing closer and closer approximations of desired behavior so that in bits of efforts the learner willingly tries to achieve more. According to Akinade and Adedipe (2004) three main principles underlie the technique of shaping and these are generalization, habit competition and chaining. Shaping finds useful application for teaching complex skills and concepts as well as for remedying learning and social skills deficits.

Aversive stimulus is a technique which due to its undesirable nature serves to decrease the probability that a behavior will occur. Often occurs as a consequence of a behavior of a punisher. Alternately removal of aversive stimuli can serve to increase the likelihood that a behavior will be exhibited. Negative reinforcement is the reinforcement of behavior through the contingent removal or avoidance of an

aversive stimulus. Successful avoidance or removal of the aversion produces an increase or maintenance in occurrence of the given behavior. Praise is a positive verbal attention for appropriate behavior and it has the potency of modifying learning as it nourishes the psychological health of the learner. It is also termed as verbal reinforcement which are reinforcing comments delivered contingent upon appropriate behavior. For example telling a child who has done well in an area something like, good job or that's a wonderful performance. Primark Principle states that any highly preferred activity can serve as a positive reinforcement for a less preferred activity. Shaping has to do with reinforcing closer and closer approximations of desired behavior so that in bits of efforts the learner willingly tries to achieve more.

METHOD

The study is a descriptive design, which sets out to describe behavior by measuring the variables of the study. Descriptive methods help researchers to identify what is happening in order to predict what might likely happen given some differing circumstance. The population of the study was made up of 1928 teachers drawn from the 48 secondary schools in Makurdi Local Government Area of Benue State. The sample for the study was 216 teachers randomly sampled across 15 of these schools drawn from both rural and urban areas in terms of school location to include

both Boys and Girls as well as Day and Boarding schools.

The instrument used for this study is a 22-item questionnaire designed on modified Likert rating scale with four levels to investigate the teachers' perception on differing students' learning outcomes due to use of different behaviour modification techniques. The instrument was content validated by two professionals in Psychological Testing and Educational Psychology. To establish the reliability of the instrument, a repeat administration of the questionnaire was made on 30 teachers at the University of Agriculture secondary school Makurdi in a span of two weeks. The responses were collated and scored. These scores were subjected to Pearson Product Moment Correlation. A correlation coefficient of 0.70 was obtained which was considered good enough for the study.

Following this data was collected and analyzed using means and standard deviations while the t-test statistics was used to test the hypothesis at 0,05 level of significance. Means of 2.3 and above were accepted as agreeing with the item being measured.

RESULTS

Question 1: what will be the teachers' perception of the use of positive behavior modification techniques in bolstering students' learning outcomes?

Table 1: Means and Standard Deviations of Teachers' Perception of Influence of Positive Behavior Modification Techniques

S/N	Items	Means	SD	Decision
1	I often use verbal praise in my class	3.00	0.91	Agreed
2	Use of positive reinforcement makes students more motivated to learn	2.96	0.89	Agreed
3	use of modeling techniques in helping learners is not good for my subject	2.58	0.99	Agreed
4	I use time time out for my noisy students	2.75	0.79	Agreed
5	Primark principle is good for difficult students	2.59	0.69	Agreed
6	I use stimulus satiation to check laziness in my subject and it improves performance	2.00	0.99	Disagreed
7	Shaping is useful for character training	3.34	0.88	Agreed
8	I use systematic desensitization to curb fear of difficult subjects/topics.	2.89	0.79	Agreed
9	Proximity control is useful when I want students to learn independent skills	2.66	0.85	Agreed
10	I use token economy for remarkable improvement of poor students	1.90	0.96	Disagreed
	Grand cluster mean	2.67	0.87	Agreed

Results in Table 1, show total mean of 2.67 which indicates that some teachers actually perceive the use of positive modification techniques in the classroom as useful in bolstering learning outcomes. Although a good number seem to have sound understanding of some common positive techniques like positive reinforcement

(2.96) and verbal praise (3.00), some indicated that they have only a limited knowledge of how to use these techniques.

Question 2: what will be the teachers' perception of the use of aversive behavior modification techniques in bolstering students' learning outcome?

Table 2: Means and Standard Deviation of teachers' perception of the influence of aversive Behaviour Modification techniques

S/N	Items	Mean	SD	Decision
1	It is the cane I use to keep the learner focused	3.00	0.97	Agreed
2	When I label and blacklist weak students they sit up and do better	0.99	0.90	Disagreed
3	When a learner is punished he must improve	2.40	0.79	Disagreed
4	Removing privileges make learner eager to work harder to recover them	2.44	0.88	Disagreed
5	Beating dull students make the student work harder	2.30	0.95	Disagreed
6	When I make students work outside for failing in my subject their performance improves	1.99	0.84	Disagreed
7	When I humiliate poor students they learn to do better	2.03	0.98	Disagreed
8	Use of punishment is the best option for lazy students	2.18	0.78	Disagreed
	Grand Mean	2.17	0.89	Disagreed

Data from table 2 shows a grand mean of 2.17 which indicates that most of the punitive techniques do not yield much in bolstering learning outcomes from teachers' perception.

Hypothesis testing: Teachers' perception of the influence of techniques for bolstering students' learning outcome does not differ significantly between positive and aversive behavior modification techniques used.

Table 3: t-test of difference between teachers' perception of positive and aversive techniques in learning outcome

Source of variation	N	Mean	SD	df	t-cal	t-table	Result
Positive behaviour Mod.	216	2.66	0.87	215	3.42	2.79	Sign.
Aversive behaviour Mod.	216	1.73	0.89	215	-3.42	-3.48	Sign.
Learning outcome	216	3.35	1.44				

Results in Table three indicate that t-calculated value of positive technique is 3.42 as against the t-table value of 2.79. While that of aversive techniques is -3.23 t-cal as against-3.48. The findings show that from teachers' perception, use of positive behavior modification techniques has significant positive influence on students' learning outcomes while the use of aversive technique has significant negative influence on bolstering learning outcomes.

DISCUSSION

The study investigated teachers' perception on the influence of behavior modification techniques on bolstering learning outcomes among secondary school students. It was found that use of positive behavior modification techniques has significant positive influence on bolstering learning outcomes among secondary school students. It was also found that use of aversive behavior modification techniques has significant negative influence in bolstering learning outcomes among secondary school students. The finding is supported by Dungurawa and Bello (2014) who found in particular that positive reinforcement had the effect of reducing the inattentiveness symptoms of treatment group. When inattentiveness is reduced it will have a multiplier effect on the learning outcomes of such individuals. Ahmed's (2013) findings also support this finding when he found that positive reinforcement is effective in reducing absenteeism among secondary students. Nwokeji and

Ezeahurukwe (2009) also found that students who are rewarded positively for a particular behavior are better motivated to learn while on the other hand aversive techniques, especially punishment inhibits learning and rather makes the learner and the learning process frustrated. These collaborations are likely connected to the contemporary trends on therapeutic behaviour control using more of positively oriented practices than punitive measures that inflict pains on the learner. In the contemporary society the use of punitive methods for managing learning have been found to be counter-productive because as rightly reported by Marshall (2009) people are bound to learn better when they feel better and are motivated.

Teachers and the teaching/learning process should be re-engineered through training and retraining of practicing teachers in behavior modification techniques to keep abreast with best practices and new productive trends in managing classroom behaviors as well as bolstering learning outcomes among learners.

Developing proficiency in managing learner behavior for higher productivity is very crucial for ultimate career development among teachers. Bolstering learning outcomes meaningfully translates into meaningful career decisions even for the learners.

Conclusion

The result of this study shows that positive behavior modification techniques have significant positive influence for bolstering learning outcomes among learners while the use of aversive techniques have significant negative influence on learning outcomes. The use of positive behavior modification techniques like positive reinforcement, modeling, shaping, prompting and Premack principle have more significant influence on students' learning outcomes. The aversive techniques like punishment and negative labeling may rather inhibit learning instead of bolstering learner behavior. If properly trained in these techniques the practicing teacher will develop proficiency in using them and this will have a multiplier effect on the teaching career.

Recommendations

Positive techniques of modifying behavior have greater potency for bolstering learning outcomes so it should be used more than the aversive techniques. Therefore teachers should be encouraged to use positive behavior modification techniques like modeling, shaping, reinforcement, Premack principle and others are to be used to give them better tools for bolstering learning outcomes among their students.

Teacher training Institutions should be particularly encouraged to review their syllabus and training programmes to incorporate acquisition of skills for

modifying learner behavior to prepare teacher trainees ahead of time.

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