



RESEARCH PAPER

**Impact of Reinforcement Strategies on Students' Learning Behaviors
in Classroom at Primary Level**

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ABSTRACT

The purpose of this study was to find out the impact of positive reinforcement in classrooms at the Primary level. The study aimed to investigate the teachers' practices of reinforcement strategies and their impact on students' performance. A qualitative research method was used for this study and data were collected over the period of 45 days by observation method in two public schools of Lahore. Four teachers were observed for 6 days per week for at least 30 minutes. Positive reinforcement behaviour of teachers was observed. An observation protocol was developed comprising of indicators of positive reinforcement. Observation sheet was consisted of indicators along with the frequency. Indicators were framed under Skinner's reinforcement theory Likewise students of respective teachers were observed and field notes were recorded on paper. The findings of the research indicate that teachers use positive reinforcement as a part of their teaching-learning activities that are very basic in nature. Positive reinforcement enhances students' confidence and concentration on lesson. Whereas teachers' main focus remains mostly on specific students, the impact remains significant on low achievers and back benchers. It is concluded that teachers should use various

KEYWORDS Learning Behavior, Primary Level, Reinforcement Strategies

Introduction

Effective teaching involves encouraging and motivating the students by improving their learning behaviors and role of positive reinforcement is instrumental in this regard. Positive reinforcement basically includes offering an expected reward on a demonstration of a positive required behavior. Students are more convinced to exhibit the desired behaviors when they expect a reward for demonstrating that behavior (Little, & Akin-Little, 2018). Positive reinforcement draws its foundation from Behaviorism where B.F. Skinner presents the theory of Operant conditioning in this paradigm. Operant conditioning as opposed to classical condition offers reward or stimulus after the desirable behavior is displayed. Here we call this stimulus as reinforce. Skinner presented the rationale that offering a reward and making an effort for that reward is one of the most natural and productive way to acquire that behavior (Maag, 2011). Accordingly, positive reinforcement intends to increase the desired behavior by adding a favorable stimulus immediately after it occurs. It is a reward for students to behave in a certain way, and this reward encourages them to do so again (Horner, Sugai, & Anderson, 2022).

Conroy et al. (2009) examined that creating a good and engaging classroom atmosphere is one of the most powerful tools teachers may apply to boost children's learning and avoid the emergence of undesirable behaviors." Positive reinforcement is the process of providing something to a subject to motivate them to associate an action with a benefit and repeat it more frequently. Because the brain identifies the action with the

reward, positive reinforcement works when the subject repeats the target action in the hopes of earning a reward in the future.

Primary education occupies an eminent position in education system of Pakistan. It lays the foundation of learning of an individual. Every policy on education in Pakistan establishes the significance of primary level education. English and Science are the major school subjects in Pakistan. Both are compulsory subjects from primary level.

Learning English is one of the basic requirements for a student from the initial grade in the country to make them ready for a competitive world and also to be a member of the global society (Horner, Sugai, & Anderson, 2022). Science is defined as applied knowledge. It leaves an impact on our everyday activities. It is also well-defined as a tool that is imperative to individuals and to the nation as a whole to endure and to meet the global economic provisions. It clearly shows that science subjects are the most important subjects because currently, world is at a phase where its economic development and wealth is exceedingly dependent to the science workforce.

Despite the established significance of these subjects, it is seen that at the end of the terminal years of schooling, achievement scores in English subject are not up to the mark. English is one of the compulsory subjects from the beginning of the primary level of education in Pakistan but English seems to be more difficult for young children because of the language deficiency of these children and the failure of teachers to conduct classroom activities in pleasurable and effective ways. Likewise it can be seen that there is decline in enrolment science from secondary to higher secondary level. Performance in these subjects may be traced back to the decreased interest and motivation and declined attitude of students at their primary school level. Declining attitude towards Science is a phenomenon not unique to Pakistan only. Many researches worldwide indicate the same trend. For which they think it is important to generate interest from the early school levels of students. The interest of the students declines as they move to the higher grades of education. Research shows that students manifest the highest level of a positive trend towards science before the age of eleven which significantly declines over the middle school and high school years (Barmby, Kind & Jones, 2008; Simon, 2003).

Positive reinforcement is directly related to developing the learning behaviors of students which result in developing positive perceptions and interest of the. Current study is conducted to explore the impact of positive reinforcement by teachers on students' learning and learning oriented behaviors.

Literature Review

Positive reinforcement is a highly influential and efficient technique for behavior modification. This approach involves providing a motivating reward to an individual after they exhibit the desired behavior, thereby encouraging the repetition of that behavior in the future. In the field of education, reinforcement stands out as one of the most crucial methods for managing behavior. It can be utilized to impart new skills, substitute disruptive behaviors with more appropriate ones, encourage desirable conduct, or enhance focus and engagement among young learners (Parsonson, 2022). Positive reinforcement has a profound impact at the primary level, as it yields highly significant results with young students special at primary level. Academically, young students excel when positive reinforcement is employed, utilizing motivational tools such as rewards, written praise, verbal praise, clapping, healthy competition, star incentives, or engaging activities. This approach markedly enhances students' performance and learning outcomes when compared to alternative teaching methods (Rumfola, 2017). Positive reinforcement serves as a means of encouraging students to persist in their efforts, affirming their progress, and ultimately becoming a potent motivational tool. There exist numerous motivations and reasons for individuals embarking on the journey of learning a new language (AFIRM Team,

2015). When applying positive reinforcement, a specific activity or task is encouraged and promoted through systems of positive responses. Rewarding students for their good choices may motivate them to behave positively in the classroom. Positive reinforcement encourages what the learner is doing properly rather than focusing on what they are doing badly (Otero & Haut, 2015). Non-native English-speaking students encounter numerous difficulties learning English as a second language. When asking questions in English classes, students have been observed trembling with anxiety. When pupils face linguistic difficulties at the primary level, positive reinforcement plays a crucial role in English language classes. Since they speak in their native tongue at home but must speak English in class, they avoid participating because they are afraid of making mistakes and facing repercussions. Positive reinforcement is required in English language classes (Boakes, 2021). As Gardner et al have examined the significant challenges faced by EAL (English as an Additional Language) students, including issues related to learning motivation, anxiety, and resistance to acquiring a new language. Skinner's learning theory offers a fresh perspective on addressing these challenges. Positive reinforcement instills change because it introduces people to the advantages of adopting a particular behavior. An instance of positive reinforcement in the context of learning can be observed when a child misbehaves in a store. In response to the misbehavior, the parent takes action, such as giving the child attention or attempting to divert their attention by buying a toy (Boakes, 2021). On the other side, how would a teacher instruct a child in acceptable behavior using a positive parenting approach? The child would learn to link incentives with the right behavior if teachers disregarded the disobedience and waited until the youngster displayed good behavior before complimenting or rewarding him or her with a toy (Parsonson, 2022). Furthermore, positive reinforcement proves to be a valuable technique or strategies for altering student behavior and inspiring them to act responsibly, safely, and with kindness (Watling & Schwartz, 2014).

Material and Methods

Study was primarily qualitative in nature. Data were collected through participant observation over a period of 2 months. Teachers' practices of reinforcement strategies were recorded. Likewise field notes were prepared for students; learning behaviors. Frequency of practices was, however counted numerically to get an overall picture of most and least used reinforcement strategy.

Population and sample

Data were collected by observing four school teachers and their students for almost a period of two months. According to Ajjawi (2013) the selection of sample size for a qualitative study depends on certain factors such as the nature of the topic, amount of information, and research design. Keeping in view the purpose of assessing the impact, detailed observations were conducted to reach a conclusion. Two girls' public schools were selected as in our system, educational needs of a higher percentage of middle, lower middle under privileged class is catered by public sector. Out of these schools, two teachers each were selected based on the subjects they teach to grade 4 and 5. Hence these four teachers, purposively selected, basically constitute the sample of the study. Impact was assessed by the students' performance and behavior in the class.

Participant Characteristics

All the four teachers were females and had certain commonalities and few differences as well. All teachers had professional degrees in teaching. Their teaching experience was more than 5 years. Strength of students was more than 50 in all the four classes. Locality of the school was urban area of Lahore in a densely populated region. However, their academic background was different. Three of them were married and one was unmarried. They were teaching their subjects to the same class since the beginning of academic year.

Ethical Considerations

For data collection, necessary protocol for permission from relevant authorities was followed. Head of the school allowed conducting the study in the school and an informed consent letter was obtained prior to the study

After getting permission from the principal, concerned teachers were contacted. Introduction of researcher and purpose of the study were communicated to them. Along with confidence of school' administrator, assurance was given to them regarding their identity schedule of data collection with concerned teachers. All their queries were answered. Having their satisfaction, their schedule of classes was discussed.

Instruments and Procedure of Data Collection

Qualitative research approach was used in this study. The observation protocol format was prepared initially which was kept developing with the advancement of the study. The protocol included varieties of reinforcement strategies in vertical column and their occurrence frequency was recorded with respective date in horizontal rows. In this way, a framework for each teacher was prepared. Each teacher was assigned a code revealing their school and subject identity. Codes 1A, 1B, 2A and 2B were assigned for data organization and analysis. Here numbers show the school where letters show the subjects.

Teacher 1E: English Teacher of School no.1

Teacher 1S: Science Teacher of School no.1

Teacher 2E: English Teacher of School no.2

Teacher 2S: Science Teacher of School no.2

Along with this framework, field notes for every participants' observation was correspondingly prepared with a special focus on teachers' behaviors, their focus and priorities. Likewise students' performance and learning behaviors were also recorded through field notes.

In first week of the, the main focus was to establish a rapport by sitting and interacting in the classroom with teacher and students. Formal observations were started in second week.

Data Analysis

Data were analyzed to determine that which positive reinforcement strategy is used by the teachers and in which order with respect to their number of occurrences. Likewise, it was also recorded that how teachers use these positive reinforcement strategies and corresponding behaviors of students against each strategy.

Table1
Positive reinforcement strategies used by the teachers, their frequency, teachers' practice students' behavior

Positive Reinforcement Strategy	Frequency Ranking (Number of occurrences)	Teacher's Practice	Student's Behavior
Verbal Praise	1	It was observed that on getting the right answer to the question or finishing reading a paragraph from the book teacher	Student who gets appreciation becomes more motivated, raises her hand more frequently and getting a second chance, seems more confident than before. On

		appreciates in words like shabash, good, very good.	other hand, students who don't get a chance and appreciation, gradually cease to raise hand.
Written Praise	2	Teacher returns the homework notebooks. On some notebooks, there is written praise like Excellent, Good or Very Good, Star, Neat etc. These words are directionless except Neat. Teacher doesn't discuss why some students have got these remarks and not others.	Only high achievers open their notebooks and look for remarks. They share their praise with their fellows. Rest of the students collect their notebooks and keep them back in their bags. They look less motivated and uninterested.
Nominating Student as Group Leader	3	Teacher nominates a student to discipline or invigilate or supervise the other fellows.	Nominated student assumes a role of leadership and she enjoys the command on other fellows.
Nominating as teacher assistant	4	Teacher repeatedly nominates only a few students to assist him in cleaning blackboard or collecting and carrying notebooks.	Students take this opportunity as big reward. Greater number of students shows their interest in performing these tasks. Students who are given opportunity feel pride and vice versa.
Clapping	5	Clapping is offered by the teacher as a special reward. When teacher consciously asks a difficult question or announces top student in classroom test. Less frequently it was observed that to clap the whole class for themselves on maintaining.	It is considered a special incentive by students. Student getting applause feels happy and confident. It is also motivating for other high achievers. Students on back seat look more active and enjoy only clapping for them on demonstrating good discipline.

Results and Discussion

In response to research question 1, that asks for most dominantly used positive reinforcement strategy, it was noted that teachers most often use verbal praise. They use different words of appreciation like “Shabash”, ‘very good’ in both English and Urdu languages. Use of these words are on getting responses from individual students as well as show on raised hands by greater number of students and appreciating the whole class like

“Well done! It seems all of you are prepared today”

And responding to the individual student like

“Absolutely Right, Good”

“Very good”

It was also observed that whole class was appreciated on demonstrating a good discipline behavior like

“Shabash, you are really good children”.

Overall this mode of positive reinforcement was mostly used by the teachers of all the four classes. Students’ behavior in response to these appreciations is very positive. They demonstrate high level of motivation for further participation. It was noted that teachers use written appreciation on homework. Their remarks are considered as grading by students in a sequence like excellent, very good, good, star, neat, fair etc. The students, who receive higher level of comments, feel pride and they share it with their fellows. Likewise student’s nomination as group leader or teacher assistant is also taken as positive reinforcement for students and they feel accomplished in doing so. Least frequently observed was clapping for the students. It is taken as a special moment of pride for the student who is receiving reinforcement. He seems more motivated and confident

In response to Research Question 2 that how effectively teachers use these strategies, it was observed that teachers' main focus remains on students who are willing to participate. However one science teacher 2B used to involve students who were less participating but style of teacher was observed as embarrassing and not encouraging. None of the teachers offered wait time to any students. Written praise on homework was non directive feedback with just words and not describing that why students were awarded with these comments. Likewise, for nominating as group leader or teaching assistant, teachers usually nominated a few students repeatedly. It was also observed that any of the teachers didn't use nontraditional positive reinforcement strategies.

Research question 3 probes the reasons for teachers' use of positive reinforcement strategies. It was observed that teachers' use of positive reinforcement was mainly to facilitate their own teaching learning process. Any desirable learning behavior wasn't observed by any of the teacher as a target behavior to be improved.

In response to the research questions that what category of students is most influenced by positive reinforcement, it was observed that high achievers was the common category in all the four classes followed by average achievers. Low achievers' frequency of receiving positive reinforcement was very low. However, their response on receiving appreciation was significantly positive.

It was observed that all the teachers despite of their demographic variations used all similar kind of positive reinforcement strategies except teacher 1A who significantly used more clapping in her class. Another difference that was observed was that English teachers were more frequent in verbal reinforcement while science teachers' main focus was on written feedback on homework and test. Science teachers' consciously used to engage low achievers of the class. Resultantly their frequency in rewarding low achievers was observed as comparatively better. Though

Conclusion

Findings of the study lead to conclude that the students who receive positive reinforcement are more motivate to perform better. They gain more confidence in responding to the teachers' tasks. This finding of the study is consistent with findings of Henderlang and Lepper (2000) described that praise at the same time not only motivates that student but also enhances self-confidence in the students who like to remain engaged in those works in which they are appreciated.

Findings of the study also reveal that teachers in the study mainly use reinforcement strategies in order to make teaching learning more effective. Similar study was conducted by Khaliq Douna and Ahsan (2016). They investigated the reinforcement in learning the language of primary classes in different schools of DG Khan. They find out that positive reinforcement helps as a motivational force in English language learning.

Current study concluded that high achievers receive more positive reinforcement than their counterparts; average and low achievers. They are evidently be observed as more motivated towards learning. Whereas, in this scenario, cause and effect remains a question, the finding is consistent with other similar studies. For instance a study was conducted by Khattak and Ahmad (2018) to examine the effects of positive reinforcement on students' academic performance. The study focused on students with the same socioeconomic background and no cultural differences. The study's findings showed and suggested that positive reinforcement affects student academic achievement. So, teachers can therefore utilize positive reinforcement to improve classroom strategies and boost students' academic development.

It was also concluded in the study that teachers use the positive reinforcement strategies which are way older and quite basic in nature. During an informal talk they shared that these strategies are almost similar which they have been receiving in their school life and they find these techniques quite effective. Further, their focus of positive reinforcement remains on high achievers.

Recommendations

In the light of findings and conclusions, it can be recommended that

1. Teacher training institute should focus on equip the teachers with modern and diverse positive reinforcement strategies in the class. Pertinent situation oriented knowledge should be imparted and during their practice teaching, these strategies should be encouraged to be implemented.
2. Strength of the class is a big barrier for effective implementation of positive reinforcement. It is suggested that teacher student ratio should be managed as a policy measure.
3. Teachers' orientation should be made to have a uniform focus on whole class so that low achievers may not feel deprived of appreciation and positivity of the classroom environment.
4. A schedule of reinforcement strategies should be planned by the teachers in advance for effective and uniform implementation of positive reinforcement.
5. Teachers' orientation for implementation of positive reinforcement should also be on promoting desirable behaviors and manners in the class along with improving teaching learning process.
6. It is further recommended that future studies should be conducted on related topic. Intervention studies based on nontraditional strategies are specifically proposed.

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