



# Reinforcement and Punishment: The Concepts Teachers Need to be Carefully Watched

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## ABSTRACT

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### Keywords:

Punishment;  
Reinforcement;  
Rewards;  
Discipline;  
Professional Teachers.

Numerous acts done by teachers without proper consideration were impactful to students. This study determines the level of teacher cognition to reinforcement and punishment concept in the learning process at school. In addition, this study also aims to assign the accuracy of applying these concepts to students. Mixed-method using embedded design was implemented to address the goals. As 49 teachers responded from several schools in the District of Kepulauan Pongok, South Bangka. Besides, in-depth interviews were also conducted with five teachers who were selected. The research sample was set based on purposive sampling. The data collection techniques were a questionnaire in the form of a rating scale and an in-depth interview form with a feasibility test previously performed using the Content Validity Index. Likewise, the data obtained were processed using the calculation of the average, standard deviation, percentage as well as content analysis. The results indicated that 2.86 out of 5 or 57.2% of the teachers had good understanding towards the two concepts. Meanwhile, 3.15 or 63% of the teachers were familiar to reinforcement. Besides, 2.44 or 48.8% of the teachers were familiar to give punishment. In other words, the comprehension as well as its application are classified very moderate and needed to be carefully watched.



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## A. INTRODUCTION

Punishment is very commonly accepted by students these days as the reason to improve discipline and children's achievement (Ferrara et al. 2019; Pesta, 2021). However, the portions of the two should have been reversed, where punishment should have been offered as a last alternative after reinforcement (Atkin-Plunk, 2020; Indrawati et al. 2021). To this day, research in the field of education focuses on the benefit of media, techniques, and teaching methods Nousheen et al. (2020), while studies on teacher understanding and abilities in determining the treatment of students are very rare (Levine et al. 2020). Meanwhile, there are not a few teachers still having confusion about determining attitudes, especially in deciding when to give punishment and reinforcement; even though they already understand the different characteristics of children, both with and without special needs (Apter et al., 1998; Menzies et al., 2020; Papadatou-Pastou et al., 2021). Related to explaining the sentences above, teachers cannot be disconnected from psychological familiarity as it will determine the teacher's perspective and restorative in educating their youths (Bronsther, 2021). *Reinforcement and Punishment* are two different but

very similar treatments. Both must be well apprehended by the teacher so that they can be applied proportionally. Unfortunately, these two concepts are not very familiar among teachers, especially those in rural areas. These two concepts serve a great impact on the development of learning and students' self-motivation (Muhammad Fuad et al. 2021). In between both, teachers are more familiar with the concept of punishment. Unfortunately, the placement and portions offered are not based on proper foundations and rules. Therefore, a lack of understanding of this concept is feared to be a substantial issue in the world of education.

The most well-known *Reinforcement and Punishment* concept is the Quadrant concept, which uses dogs as experimental material; as developing research, this behavioural concept is also legal to use and apply to humans (Olan & Richmond, 2019). In detail, this study uses the theory of B.F Skinner (Operant Conditioning) as the basic foundation of the research. There are four types of treatment that teachers must know; (1) Positive Reinforcement; (2) Negative Reinforcement; (3) Positive Punishment; and (4) Negative Punishment. The four components have their advantages and disadvantages.

There are numerous punishments given by teachers without proper consideration. This is the main basis of this research. Monotonous and conventional teaching techniques are the major reason this research is conducted. Aside from that, the application of punishments that are not at the right place and time is also very typical (Hand, 2020; Warnick, 2022). This certainly must be a serious concern, particularly for teachers and school principals, to avoid mistakes in treating children.

Using this research, the researcher wants to know the extent of teachers' understanding of reinforcement and punishment concepts through questionnaires. In addition, the importance of this research can describe the number of punishments that are not in the appropriate proportions. Therefore, the significant role of this research is to provide an overview and insight regarding the importance of knowledge related to punishment and reinforcement. On the other hand, this study aims to be a reference that can be applied to add to the repertoire of knowledge, especially related to punishment and reinforcement, which can be adopted as reference material for teachers in carrying out the teaching process in the classroom. Not limited to the teachers, this concept might fit to how parents should be well involved in an educational process of their kids as they are the prominent key to succeed and support their kids' achievement at school (Haiyudi & Art-In, 2021).

In addition, this study also aims to determine the application of punishment and reinforcement in each school. Apart from teachers, this research will also raise opinions and the effects of punishment and reinforcement through interviews with student representatives in each school. In detail, the formulation of the problem of this study can be known through the questions; how is the teacher's comprehension of the concept of reinforcement and punishment? and how have those two concepts of reinforcement and punishment been applied in schools?

The novelty of this research is that there are a small number of researchers who raise the understanding of reinforcement and punishment. In reality, some teachers are mistakenly dealing with their students. Therefore, the researcher elevates this topic as an effort to strengthen the teacher's ability to address problems in the classroom. In addition, the concept of reinforcement and punishment is significant because of the diversity of students, which causes different ways of treating students having diverse characters.

## B. METHODS

A mixed-method research using a historiographic-phenomenological approach was carefully conducted in this study. This research aimed to carry out investigations, judgments, and synthesis of evidence to obtain data and truth in the field and conclude the right decisions about the research object. The primary data in this study was quantitative, which was data sourced from questionnaires distributed to teachers. On the other hand, the qualitative data was the result of interviews on the understanding and use of the concepts of reinforcement and punishment. The quality of these data came from the teacher and was supported by the opinion of the school principal. It was to carry out cross-source checks to strengthen existing data in the field.

This research was deeply done in the district of Kepulauan Pongok, South Bangka, from August to November 2022. The population in this study were teachers in the district. Then the sample for the research was teachers at the elementary, middle, and high school levels in the Kepulauan Pongok who were randomly selected (Random Sampling). There were as many as 50 active teachers were targeting to be included as the participants of the research. However, there was one teacher who asked to be excluded as the participant after delivering the response. Besides, there were 5 teachers were directly interviewed deeply to give an oral explanation about the implementation of these two concept in their own classroom. In detail can be seen in the Table 1.

**Table 1.** Number of research respondents

	<i>Respondents</i>	<i>Interviewee</i>
Male	23	2
Female	26	3
Total	49	5

The instrument used was a questionnaire that included several sections; the Understanding Section, the Implementation Section, the Reinforcement Section, and the Punishment Section. In addition, an interview form was also required to ask directly about the obstacles to the application of the Reinforcement and Punishment concepts in each school. Previously, the instruments, in the form of questionnaires and interviews, had been verified. The feasibility test was also carried out by 3 experts. In detail, instrument testing was done through the *Item-Content Validity Index (I-CVI)* form. The data collected then analysed by conducting the calculation of average value, percentage and standard deviation to be compared with the level of category.

## C. RESULT AND DISCUSSION

Prior to distributing the questionnaire to the participants, the researchers first conducted a validation test on the statement items through the Item-Content Validity Index (I-CVI). Its calculation technique involving three experts consisting one professor and two associates professors affiliated to the heads of teaching curriculum, and educational psychology. At the beginning of the verification stage, the researcher submitted 35 statements, narrowed down to 30 items divided into three parts; understanding, applying reinforcement, and applying punishment to students. The least score on each item considered suitable for use was 0.67. When the I-CVI calculation score was below that, it had to be revised or deleted.

After verifying the items, the next was to calculate the average value and standard deviation of the results of the questionnaire distribution. Identification of the teacher's understanding of the concepts of Reinforcement and Punishment was done to know the level of comprehension before implementing it in the learning process in the classroom. This was significantly impacted because

understanding will determine how the teacher's treatment of students can be performed appropriately. The teacher's understanding towards these two concepts was done by giving statements in the form of a Likert scale with a gradation of 5 points. In detail, the teacher's understanding of these two concepts can be seen in Table 2.

**Table 2.** teacher's understanding of the concept of *Reinforcement and Punishment*

<i>Items</i>	<i>n</i>	<i>Full</i>	$\bar{x}$	<i>SD</i>	<i>%</i>
Comprehension of The Concept	49	5	2.86	0.90	57.2
Reinforcement Application	49	5	3.15	0.94	63
Punishment Application	49	5	2.44	0.79	48.8
<i>Overall Average</i>			2.81	0.87	56.2

In the same aspect, teachers' understanding of the concepts of reinforcement and punishment was also measured through interviews with teacher representatives in the area. Almost all teachers said these two concepts were essential.

"These two concepts are very important to understand because they will relate to the way students are treated" (Translated from Language Indonesia).

"It is necessary because reinforcement can foster student motivation to increase learning achievement, while punishment can also increase student learning motivation for actions committed so that they do not repeat poor doings. Punishment can also be used as a good lesson" (Translated from Bahasa Indonesia).

In general, the teachers answered that the two concepts above were prominent to be known for several reasons, one of which was to comprehend how to treat students well. In addition, some teachers may also use the two concepts interchangeably, depending on the circumstances.

"The two concepts are carried out alternately or complement each other depending on what things are faced in dealing with students. If they make mistakes or negative actions, you need a punishment so that they can have a deterrent effect and are aware of the mistakes they have made. If they do positive things, especially in learning activities, giving rewards can also be a special motivation for students to be even better." (Translated from Indonesia Language).

However, some teachers still treated students with the dominating concept of punishment.

"Punishment is often applied to students because motivating them only is far from enough. Typically, students in the village are different from students in the city." (Translated from Language Indonesia).

"These two concepts are often implemented in schools, but what tends to be applied the most is the punishment concept. This is to provide a deterrent effect so that students do not make any more mistakes in the future." (Translated from Language Indonesia).

With the tendency to give punishment to students, teachers felt sad, sorry, and concerned. It was because the teacher naturally experienced that giving punishment will cause bad effects. Therefore, the awareness level of the importance of understanding both concepts above was in the moderate category, but it needed to be improved. It was certainly in line with the reinforcement application having a higher value than the value of the punishment application.

This study is intended to find out teachers' understanding towards the concept of Reinforcement and Punishment together with its implementation in the district of Kepulauan Pongok, South Bangka. Looking back at meaning of each term, punishment means giving a heavy burden that causes suffering intentionally for improvement in the future. Meanwhile, reinforcement is rewarding in the form of numbers or treatment given to student achievement

(Papageorgi, 2021; Sen & Yıkıms, 2021). Both are used to improve students' skill and motor in a good portion of use (Chen et al. 2018).

Based on the data resulted from this research above, the teacher's level of understanding on these two concepts was at an average value of 2.86 with a standard deviation of 0.90 or there were only 57.2% of the teachers having understanding of the concept of Reinforcement and Punishment. These results showed that the comprehensive point of teachers' understanding towards them was above the midpoint, but still in the medium category. Whilst, teachers understanding towards the concept above will determine how students' attitude as it should be coming from the two internal and external factors. One of the external factors is teachers' comprehension on threatening their students and school environment (Papageorgi, 2021). Thus, the teacher's understanding of the concepts of reinforcement and punishment still needed to be improved in various ways as it will effectively affect to students' motivation and achievement (Shegay & Krivosheeva, 2020; Sidin, 2021). Previous studies also proved that rewards, besides increased motivation to learn, it also may increase students' effort to retake their failure on the previous test (Attali & Arieli-Attali, 2015; Maier, 2021). Therefore, the value 2.86 out of 5 was not a good result regarding the very prominent comprehension each teacher should have towards the concept of Reinforcement and Punishment.

However, this certainly required to be increased. Several choices teachers may use in treating their students were related to how much the teacher knew this concept (Asadullah et al., 2019). It is also related to how the future direction of thinking way of the students is directed (Byrd et al., 2014). Similarly, in the other part of the data collected in this study, some teachers also stated that understanding the concept of Reinforcement and Punishment is not an exception. It will determine how teachers treated their students.

"These two concepts are very important to understand because they will relate to the way students are treated" (Translated from Language Indonesia).

"It is necessary because reinforcement can foster student motivation to increase learning achievement, while punishment can also increase student learning motivation for actions committed so that they do not repeat poor doings. Punishment can also be used as a good lesson" (Translated from Language Indonesia).

On the other side of discussion, the prominent part of talk is about its strength and weaknesses. Both of these treatments had their advantages and disadvantages. Several previous research suggested avoiding of the use of punishment even to improving student behaviour. The concept of reinforcement and punishment were two concepts that had an intersecting meeting point. However, negative effects were found from using punishment that was not appropriate for its use. The higher the punishment activity given by the teacher was, the more directly proportional to the level of dissatisfaction and no moral feeling produced by students would be (Baroncelli et al., 2022). In addition, the consequences of the punishment given will have an impact on children's learning motivation in the classroom (Ahmad et al., 2013).

Furthermore, the detail description of this study related to the application of reinforcement in the classroom by teachers showed an average value of 3.15 and a standard deviation of 0.94. On the other words, there were 63% of the teachers had implemented the reinforcement. This result indicated a higher score than its comprehension section. However, it was still in the moderate category because it had not yet reached a score of 3.50 or <3.50. Meanwhile, in the aspect of the application of punishment, the average value obtained was 2.44 with a standard deviation of 0.79 or 48.8%. These results indicated that the application of punishment was still at

a low level, which was less than 2.50 (<2.50). This was certainly a good result. However, this figure still proved that the application of punishment was still very common in the school environment in district of Kepulauan Pongok. On the other hands, one teacher also gave his opinion related to the comprehension of the topic. It shows that their understanding toward the concept was good.

“It is necessary because reinforcement can foster student motivation to increase learning achievement, while punishment can also increase student learning motivation for actions committed so that they do not repeat poor doings. Punishment can also be used as a good lesson”.

Furthermore, the application of reinforcement was known to reduce sensitivity to depression (Katz et al., 2020). It was indeed a great thing to implement. Apart from that, reinforcement can also be offered to increase self-confidence by giving appreciation in the form of what they enjoyed doing (Koert et al., 2020). In contrast, some also stated to often apply the punishment to their students due to several reasons including fostering students' achievement. However, it is truly banned as it affects to students psychological thinking even their mental health, especially for conducting a corporal punishment (Gershoff, 2017; Heekes et al., 2022; Medway & Smircic, 1992; Visser et al., 2022). It also might affect to students' dropped achievement (Eze & Udeh, 2022). Many ways to improve students discipline such as conducting creative classroom setting (Prasetyarini et al. 2021).

“Punishment is often applied to students because motivating them only is far from enough. Typically, students in the village are different from students in the city.” (Translated from Language Indonesia).

"These two concepts are often implemented in schools, but what tends to be applied the most is the punishment concept. This is to provide a deterrent effect so that students do not make any more mistakes in the future." (Translated from Language Indonesia).

An effect of deterrence mentioned as a reason of giving punishment to the students may not in a correct way. Some other previous studies are against punishment to be implemented as it also blocks students to behave honestly (Bahník & Vranka, 2022). Furthermore, giving an uncontrolled punishment especially negative punishment nearly comes to corporal punishment will also affect to the school outcomes (Pesta, 2021) and produce long term liars (Agranov & Buyalskaya, 2021).

In summary, the average value of the comprehension section, reinforcement and punishment applications in the classroom carried out by teachers was at the medium level. The average value obtained through this research was 2.44 on a scale of 5. It was anticipated as such. Based on the effects described above, the application of punishment certainly had various negative effects (Ahmad et al., 2013; Baroncelli et al., 2022). However, despite the different categories, the distance between the three sections (understanding concepts, applying reinforcement, and applying punishment) was very close. Of the three categories, the average value obtained was 2.81 on a scale of 5. It is identified that the understanding and application of the concepts of both reinforcement and punishment by teachers in the district of Kepulauan Pongok, South Bangka was still in the medium category. Certainly, it must continue to be improved to optimize the teaching and learning process in the classroom.

#### D. CONCLUSION AND SUGGESTIONS

Referring the results and discussion of the data, the authors obtain conclusions drawn from the research regarding the understanding and application of the concepts of *reinforcement* and *punishment* conducted by teachers in the district of Kepulauan Pongok, South Bangka Regency. The result of students' comprehension is in the medium category with an average value of 2.86 out of 5. It refers to 57.2% of the teachers had well understanding towards the concept of reinforcement and punishment. Besides, reinforcement and punishment application is often found to 63% and 48% in each. It must be carefully watched as the correlation between teachers comprehension on the concept will affect to the students in many parts of psychological learning. It is important to conduct a research focusing on improving teachers' competence regarding the comprehension of these two concept in the future.

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