The effect of reward and punishment on student learning outcomes

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Abstract
This study aims to find out the effect of giving rewards and punishments on learning. To achieve this goal, the research methodology used is a quantitative approach to the survey method. The population is students of the Teaching and Education Faculty, Indonesian Christian University, with a total of 196 students. At the same time, the research instrument is a questionnaire (questionnaire) using a Likert Scale that has been tested for validity and reliability. Then the data will be analyzed using multiple linear regression. The results showed that (1) there was a significant positive effect of reward on student learning outcomes based on a significance value of 0.000 <0.05 and $t_{\text{count}} = 9.729 > t_{\text{table}} = 1.967$. (2) Punishment has a significant positive effect on student learning outcomes based on a significance value of 0.000 <0.05 and $t_{\text{count}} = 5.415 > t_{\text{table}} = 1.967$. (3) There is a significant positive effect of reward and punishment on student learning outcomes based on a significance value of 0.000 <0.05 and a calculated $F_{\text{value}}$ of 76.420 > $F_{\text{table}}$ 3.025. The results of the determination test showed that reward and punishment could affect student learning outcomes by 34.4%, while other factors influence the rest.

Keywords: reward and punishment, learning outcomes

Introduction
Learning is a process of mastering something that is learned, so it can be explained that learning is always a change in behavior or appearance, with a series of activities, for example, reading, observing, listening, imitating, and so on. Learning is an obligation for every Muslim to acquire knowledge so that the degree of life increases. Learning and teaching are always related because someone who is learning must have someone to teach so that there is an interaction between the two, called the teaching and learning process. Meanwhile, learning is a complex process, which includes learning processes/activities and teaching activities \(^{[1]}\). There are various problems in the learning process from school to the tertiary level. Among these problems is the low learning outcomes in everyday learning. Teachers face obstacles in developing knowledge and learning abilities. Various factors cause low learning outcomes in learning, including students feeling embarrassed and afraid of being wrong and lacking knowledge, so students have difficulty learning.

Learning at the teaching and education faculties of the Indonesian Christian University can be said to be good because the environmental culture and learning activities there are supported by strict discipline \(^{[2]}\). From this discussion, it can be concluded that learning in the teaching and education faculties of the Indonesian Christian University is due to environmental culture; therefore, it is a separate motivation for students to be able to study well. One of the methods applied is reward and punishment in encouraging students to study in school and dormitory environments. With this method, it is hoped that it can improve learning outcomes in everyday learning, with rewards it is hoped that it will create a pleasant atmosphere and be given punishment if it violates the rules that have been set or as an act of warning for violations that have been done which will create fear of the threat of punishment. Both of these methods are expected to generate a sense of enthusiasm and learning outcomes in learning.

Teachers can motivate students by using reward and punishment methods as extrinsic reinforcement to encourage achievement and maintain student learning outcomes in their studies. The two reward and punishment methods are motivated by the behavioristic theory, where according to behavioristic theory, learning is a change in behavior due to the interaction between stimulus and response, in which reward and punishment as a stimulus will strengthen the response that students have made. Giving rewards is a positive response by the teacher while giving punishment is a negative response. Both have the same goal: to change children’s behavior in a better direction as a learning outcome \(^{[3]}\).

Without denying that other supporting factors are used to increase student motivation, and learning quality, such as the use of the direct method (Thariqah Mubasyarah) also plays an important role in providing learning abilities in students’ daily lives. Students are required to interact in the teaching and learning process conducted by the lecturer. The learning process takes place with the direct method, and the teacher will translate if needed. To discipline students in learning, the lecturer must ensure that all students must be involved in learning. However, the implementation of punishment, as well as giving rewards, does not strengthen students themselves. It follows the results of interviews with teachers who stated that overall results have decreased in recent years, and only a handful of students have excelled in learning.
Therefore, researchers are interested in examining how big the effect of giving rewards and punishments imposed by lecturers on students is in developing students' enthusiasm for learning. Behavior as a result of learning is formed because of the relationship between stimulus and response. The degree of intensity and length of repetition of the relationship or exercise determine whether it is strengthened or weakened. If there is no exercise for some time, the relationship will weaken. Instead, the relationship will get stronger if there is practice. In the learning process, teachers must provide students with as many practice opportunities as possible to achieve the expected results. After 1930, Thorndike revised this law. Practice alone is not enough, and practice will only bring results if it is followed or accompanied by a reward or punishment [4].

The term 'reward' comes from English, which means rewards, prizes, wages, rewards, rewards, and punishments. Thus, rewards in English can be used for positive or negative replies. A gift is giving something to someone else as a tribute to a memento/memento/souvenir. Gifts given to others can be anything, depending on the giver's wishes. Or it can also be adjusted to the achievements achieved by someone [5]. Ngalim Purwanto said that reward is a tool to educate children to feel happy because their actions or work are rewarded. Meanwhile, according to Sadirman, appreciation is a form of learning outcome that the teacher can give. According to some of the ideas of these experts, a reward is an instructional tool that reinforces students' behavior and accomplishments to encourage them to continue their excellent or positive behavior. In linguistic theory, it is known as stimulus and response, meaning that in learning, a reward is given as a stimulus to strengthen the response that students have made; therefore, the reward is one of the most important methods in the world of education. Reward as a learning method has several forms, namely verbal and non-verbal. Giving rewards to children will lead to good deeds. Therefore, rewards should have three important roles in educating children to behave: 1) Rewards have educational value. 2) Reward serves as a motivation to repeat good deeds. 3). Rewards serve to reinforce better behavior. M. Ngalim Purwanto said that a smart child who always shows good results does not need to always get a reward because he is worried that this could turn into wages and is no longer educational. It is where the wisdom of a teacher is required so that this gift follows its purpose, namely to provide motivation. In certain cases, it could be that all students get prizes, not just those who excel [6].

Rewards can considerably influence students' souls to carry out positive actions and be progressive. In addition, it can also be an incentive for other students to follow children who have received praise from their teachers. However, it cannot be denied that this method also has weaknesses, including having a negative impact if the teacher does not do it professionally, which might cause students to feel that they are higher than their peers (arrogant). Therefore, the teacher must understand the principles and objectives of giving rewards so that the rewards given are not misguided and backfire on the teacher himself. Appropriate praise or appreciation will help students to be more motivated in learning. In Islam, there is also a rewarding method known as a reward. Rewards are rewards or rewards that Allah SWT gives to His servants who believe and do good deeds and other good deeds.

Based on the verse above, it is so clear that Allah SWT describes the reward (reward) that will be given to His servants who always do good in the world to achieve His pleasure, namely heaven. Likewise, in the world of education, this method of giving rewards can be applied so that students study more actively because there will be rewards that they get from the results they get so that learning outcomes will increase to be better than before, even the best from their friends. Thus the importance of giving rewards to achieve the desired learning objectives.

Punishment is suffering given or caused intentionally by educators after students commit violations or mistakes. Thus, punishment can also function as a preventive or repressive effort. Punishment is also often termed an aggressive stimulus. Skinner at first agreed with Thorndike that the effect of punishment was parallel to reward, but in the next experiment conducted by Estes (William K. Estes), one of the students changed his view. Schools can change into a fun atmosphere; exams can be turned into games or modified into a competition arena by creating a competitive atmosphere full of excitement, such as searching for treasure. Eliminate the scary impression when accompanying students to take exams. The purpose of giving punishment at school is to form the attitude and behavior of students so that they obey and comply with all applicable rules or norms. The teacher gives punishment to educate and foster students to change their actions that violate and are not good.

There are two types of punishments, namely: a) Preventive Punishment, which is a punishment carried out with the intention that no or no violation occurs, and b) Repressive Punishment, namely punishment carried out because of violations or sins that have been committed. So this punishment is carried out after a violation or mistake has occurred. William Stern distinguishes three types of punishment that are adjusted to the level of development of the children who receive punishment: a) Associative punishment- A child generally associates punishment with crime or violation, between the suffering caused by punishment and the violation committed. Children usually avoid bad or prohibited actions to get rid of that bad feeling (punishment). This punishment can be applied to young children who can only feel and associate things; b) Logical punishment - This punishment is used against rather big children. With this punishment, the child understands that the punishment is a logical consequence of his bad work or actions; and c) Normative punishment - Normative punishment is a punishment that intends to improve children's morale. With this punishment, educators try to influence the child's conscience, convict the child of his wrong actions, and strengthen his will to always do good and avoid evil. While the form of punishment given in learning, according to Ag. Soejono, is in gestures, words, and actions. From the forms of punishment discussed, it can be concluded that punishment can be given in stages. Starting from the form of gestures and then words, then in the form of actions that are unpleasant for students in the hope.
that the punishments given are solely to educate them, not because of the teacher's dislike of students or feeling annoyed and hurt to punish students with inappropriate punishment according to the actions they have committed. The punishment applied is expected to change students' wrong or bad actions and not repeat them. Punishment in education has an important portion. Education that is too free and light will form undisciplined students who lack determination. However, a good sanction is not immediately carried out, especially if there is a feeling of revenge. Sanctions can be carried out in stages, starting with a reprimand, then exile, and so on, with a note that it does not hurt and remains educational. The requirements for giving spankings or punishment include: a) the teacher is not in a hurry; b) The teacher does not hit when he is very angry; c) Avoid sensitive limbs such as the head, face, chest, and stomach; d) Not too hard and hurt; e) Not hitting a child before he is ten years old; f) If the child's mistake is for the first time, he should be allowed to repent, apologize and promise not to repeat the mistake; g) Educators use their own hands; and h) If the child has reached adulthood and ten strokes are not deterred, he may add and repeat them so that the child gets better.

The opposite of reward is giving punishment or sanction. In imposing sanctions or punishments, the teacher should be careful not to cause resentment and unsettle students. Punishments are given to students within the limits of reasonableness and still in the nuances of learning. So gifts and punishments are forms that educators carry out for actions that students have committed. Punishments were imposed for evil or bad deeds. Meanwhile, rewards are given for good deeds. Both are educational tools.

Every human activity is based on the urge to achieve goals or fulfill their needs. The existence of this driving force is called motivation. In some terminology, motivation is expressed as a need, want, impulse, instinct, and drive, which is something that compels the human organism to act or act. Judging from the source, there are two types of learning outcomes, namely: (1) intrinsic and (2) extrinsic motivation. Intrinsic motivation arises from within the person concerned without stimulation or the help of others. Intrinsically motivated people will do work because finding work is fun and can meet their needs, not depending on explicit rewards or other external coercion. Intrinsic motivation can be in the form of personality, attitude, experience, education, or awards and aspirations. Extrinsic motivation is a motivation that arises because of stimulation or help from others. Extrinsic motivation is caused by the desire to receive rewards or avoid punishment. Motivation is formed by external factors such as rewards and punishments. For example, a student does homework because he is afraid of being punished by the teacher.

Research shows that motivation from within is more effective than outside in achieving optimal learning outcomes. Internal motivation can be done by arousing feelings of curiosity, wanting to try, and the desire to progress in learning, while external motivation can be done by giving rewards, namely punishment and praise.

As for several forms of motivation that teachers can use to foster learning outcomes in learning activities at school, according to Djamarah and Zain in their book, they include: Giving numbers, prizes, competition or competence, ego-involvement, giving tests, knowing the results learning, giving praise, punishment, having a desire to learn, reprimanding and criticizing, having goals and being acknowledged, with body movements, and by giving assignments. The various forms of motivation put forward by psychologists are only mundane and short-term in nature, nor do they touch the spiritual and divine aspects.

Study skills are one learning ability in modern teaching. Learning is the main means of fostering mutual understanding and communication, using language as the medium. To convey information effectively, students should understand the content they are learning, as well as be able to evaluate what is learned. So it's not just what to talk about, but how to say it. One of the sub-systems in learning is proficiency in understanding the material being studied. Starting from simple words commonly used in everyday life, then increasingly broad and varied. By paying attention to other sub-systems so students' abilities can be balanced.

Research Method

The research method used is a survey method with a quantitative approach. The survey research is to explain the causal relationship and test the hypothesis. The population is the totality of all possible values, either the result of calculating or measuring, quantitative or qualitative, certain characteristics regarding a complete and clear set of objects whose properties you want to study. The population of this study was all students of the teaching and education faculties of the Indonesian Christian University, totaling 196 people. Sampling in this study used a random sampling technique (Random Sampling). While the number of samples used the formula from Taro Yamane or Slovin, which produced 196 respondents. To collect data, researchers used a questionnaire or questionnaire with a Likert scale. The questionnaire has been tested for validity and reliability with a Cronbach's Alpha value of 0.918, so it can be concluded that the statements in the questionnaire have a very high-reliability value. This study used the analytical technique to analyze statistical parametric data using multiple linear regression analysis.

Discussion

Multiple Linear Regression Test Results

Multiple regression analysis aims to determine whether or not there is an influence of two or more independent variables (X) on the dependent variable (Y) and how much influence the two independent variables (X) have on the dependent variable (Y).
Y = 25.658 + 0.703 X1 + 0.366 X2 + e

Looking at the regression equation above, the regression analysis results show a positive direction. Furthermore, these equations can be interpreted as follows:

1. a: 25,655

This constant value indicates that if the independent variables (X1 and X2), namely reward and punishment, do not exist, then the magnitude of student learning outcomes is 25.658.

2. b1: 0,703

The regression coefficient of the reward variable (X1) is 0.704. If the other variable, namely punishment (X2), has a fixed value and rewards increase, then learning outcomes will also increase by 0.703 or 70.3%.

3. b2: 0,366

The regression coefficient of the punishment variable (X2) is 0.366. It means that if the other variable, namely reward (X1), has a fixed value and punishment increases, then learning outcomes will also increase by 0.366 or 36.6%.

**Effect of Reward on Learning Outcomes**

The results of the data analysis on the effect of rewards which were tested partially (Test –t), showed a significance value = 0.000 <0.05 and \( t_{\text{count}} = 9.729 > t_{\text{table}} = 1.967 \), so it can be concluded that Ha is accepted and Ho is rejected, which means that there is a significant influence significant X1 to Y. Thus partially (alone) there is a significant positive effect of reward on learning outcomes. It proves that rewards increase learning outcomes. It is in line with what was expressed by Djamarah [29] “A gift is giving something to someone else as appreciation. In education, gifts can be used as a motivational tool to maintain and improve learning achievement.” According to this study, rewards can function as learning outcomes. Therefore the theory that rewards can improve learning outcomes is completely correct. However, the results of this study are in contrast to the results of research conducted by Muammarotul Hasanah [30], which states that the reward variable has no significant positive effect on social studies learning outcomes as indicated by the \( t_{\text{count}} = 1.589 < t_{\text{table}} = 2.05 \).

**Effect of Punishment on Learning Outcomes**

The results of data analysis on the effect of punishment which was tested partially (Test - t), showed a significance value = 0.000 <0.05 and \( t_{\text{count}} = 4.068 > t_{\text{table}} = 1.967 \), so it can be concluded that Ha is accepted and Ho is rejected, which means that there is a significant influence significant positive X2 to Y. Thus partially (alone) there is a significant positive effect of punishment on learning outcomes. Therefore, punishment can improve learning outcomes. The implementation of punishment in the field often gets negative thoughts from many groups. It is because they think the reference for giving punishment is something that takes the form of violence and can cause trauma and deterrent effects to students, even though not all punishments are in the form of violence involving physical members. Such as hitting, twisting, pinching, and various other forms of physical violence, even though it is still within reasonable and understandable levels. Various forms and patterns of punishment are found by students when they violate the rules of the teaching and learning process that have been mutually agreed upon. Punishment applied in the faculty is very educative, has a positive value, and is far from elements of physical punishment. It follows what was said by Fadjar [31], "Punishment is an educative effort to improve and direct students in the right direction, not the practice of punishment and torture that stifle creativity."

**Effect of Reward and Punishment on Learning Outcomes**

The results of data analysis on the effect of reward and punishment, which were tested simultaneously (Test –F), showed a significance value = 0.000 <0.05 and an F calculated value = 9.826 > F table = 3.025 so that it can be concluded that Ha is accepted and Ho is rejected, which means that there is the effect of X1 and X2 on Y. Thus there is a significant positive effect of reward and punishment simultaneously (together) on learning outcomes. It means that giving rewards and punishments given to students can improve learning outcomes. The basic findings are in line with Skinner's learning theory. Skinner said that the most important element in learning is
reinforcement. The point is that the knowledge formed through the stimulus-response bond will be stronger when given reinforcement. Skinner divided this reinforcement into two, namely, positive reinforcement and negative reinforcement. Forms of positive reinforcement include gifts, behavior, or awards. Meanwhile, forms of negative reinforcement include delaying or not rewarding, giving additional assignments, or showing displeased behavior.[32]

However, this is different from research results which show negative results, namely the absence of a significant effect of reward and punishment on improving learning outcomes [33]. It is because the rewards offered are less attractive to students, and the punishment given does not make students afraid to repeat their mistakes. In addition, other variables have a greater effect on improving learning outcomes, such as high motivation in learning. So that students have a great desire to improve their learning abilities [33]. If students get the right and sufficient portions of reward and punishment, it is expected that student learning outcomes will automatically increase. Reward and punishment are extrinsic motivations that must be given by the teacher in implementing learning inside and outside the classroom to increase students’ enthusiasm and interest in communicating using English. In this research, a determination test has been carried out to determine the percentage of influence given by variable X (reward and punishment) simultaneously on variable Y (motivation). Based on the determination test, it can be seen that the coefficient of determination is 0.344 or equal to 34.4% (the formula for calculating the coefficient of determination is R Square x 100% = 0.344 x 100% = 34.4%). The R Square number/coefficient of determination of 0.345 means that learning outcomes can be explained by reward and punishment 34.4%, and the remaining 65.4% is explained by other variables outside of the reward and punishment factors, for example, due to the learning method, media learning, interests, psychological conditions and student cognition, and so on.

Then a correlation test was carried out to determine the level of closeness (simultaneous) relationship between two or more independent variables (X1 and X2) on variable (Y). Based on this test, the Sig.F.Change value was obtained less than 0.05 or 0.000 <0.05; thus, it can be said that the independent variables (reward and punishment) correlate with the dependent variable (motivation). At the same time, the level of closeness of the relationship can be seen in the R-value of 0.586. It shows that the level of relationship that occurs between reward and punishment on learning outcomes is in the moderate category.

**Conclusion**

Based on the results of the data analysis, it can be concluded as follows: a) There is a significant positive effect of giving rewards on learning outcomes to improve learning outcomes in the teaching and educational faculties of the Indonesian Christian University. It can be interpreted that giving rewards is very influential and very important in motivating them in their daily learning; b) Punishment has a significant positive effect on learning outcomes to improve learning outcomes in the teaching and educational faculties of the Indonesian Christian University. It can be interpreted that giving punishment positively affects their motivation in everyday learning. The right choice of punishment will improve good and correct learning outcomes; c) There is a significant positive effect of reward and punishment on learning outcomes to improve learning outcomes in the teaching and educational faculties of the Indonesian Christian University. It can be interpreted that the provision of reward and punishment (carried out jointly) positively affects learning outcomes.

**References**