

Chapter Two

Literature Review

This chapter is aimed to support this study with related literature. This chapter elaborates studies including theories related to the topic of this study, review of related study and conceptual framework.

The Theoretical Base of Reward and Punishment

The basic of Behaviorism. Applying the use of reward and punishment into a learning and teaching process is basically as stimulus or reinforcer students' action or behavior. Chen (2011) said, "Behaviorist believes that learning takes place as the result of a response that follows on a specific stimulus" (p.1259). The repetition of the S-R (stimulus-response) cycle will condition the organism (animal or human) into repeating the responses whenever the same stimulus is present (Chen, 2011). Behaviorist believes that stimulus and reinforcers are needed to trigger and strengthen students' movement in a success of learning.

Gagné who is a major instructional design theorist is associated with behaviorism in his study. Gagné identified categories of human factors that affect learning event, and one of the categories is external stimulus factor (as cited in Chen, 2011). It points that *Contiguity*: time relationship between stimulus and response, *Repetition*: frequency of exposure to a stimulus, and *Reinforcement*: follow-up to the stimulus, can give affection into learning. Behaviorism itself has been a help in instructional design theory development as Gagné develop his instructional design theories.

Behaviorism is a theory where the stimulus or reinforcement (reward and punishment) exists and is given to students in learning. It also has been developed into other forms of instructional design. All is for giving help in learning success. Behaviorism, in learning, emphasizes on external rewards, e.g. grades and test scores, working to please the teachers or parents and working to avoid being told off (Cohen, Manion, Morrison & Wyse, 2010). That is what Behaviorism has believed that learning is conditioned which the learners are moved by extrinsic factors.

Pavlov's classical conditioning. Pavlov's experiment involved food, a dog, and a bell. His work inaugurated the era of S-R psychology. As cited in Chen (2011), Pavlov placed meat powder (an unconditioned stimulus) on a dog's tongue, which caused the dog to automatically salivate (the unconditioned response, responses are natural and not learned). Then, on a series of subsequent trials, Pavlov sounded a bell at the same time he gave the meat powder to the dog. When the food was accompanied by the bell many times, Pavlov found that he could withhold the food, and the bell's sound itself would cause the dog to salivate. The bell became the conditioned stimulus that caused the conditioned response of salivating.

The practice of substituted stimulus probably worked, and it can be applied in learning as an approach to effective learning. Using some kind of reward or punishment as the stimulus in learning. Therefore, it may be working in some cases for some students.

Skinner's operant condition. Skinner contributed much in Behaviorism study. Just like Pavlov, Skinner believed in the stimulus-response pattern on conditioned, and he developed the early theory of conditioned behavior (Chen, 2011). His work to this case is well known "operant condition".

Operant condition is a response's change influenced by an event (rewarded or punished) following the initial response (Chen, 2011). It is as when a particular S-R pattern is reinforced (rewarded or punished), the individual is conditioned to respond. Then, the behavior that has been reinforced (rewarded or punished), the probability that it will occur at next time has changed. The frequency of the behavior can be increased, decreased or even vanished after reward or punishment is given.

Definition of reward and punishment

Definition of reward. Reward is not defined as a thing or belonging given to people for their achievement's result. Horner and Spaulding (2009) stated, "rewards are defined as any contingently delivered consequence like event, activity and object associated with an increase in the future likelihood of a behavior in similar situations" (p.755). According to Skinner, reward or positive reinforcement is anything that reinforces the wanted response to be repeated after the behavior or an action is made (as cited in Chen, 2011). As addition, Horner and Spaulding (2009) emphasized "if the consequence was a sticker, and the behavior increased, then the sticker was a reward; if the consequence was a reprimand (which included adult attention), and the behavior increased, then the reprimand was a reward" (p.755). A good response of behavior that is repeated means have been positively reinforced or rewarded, and the reinforcement itself has become reward.

Definition of punishment. Sidman as cited in Holth (2005) defined punishment as anything that can reduce the frequency of undesired action or behavior. According to Skinner, punishment is to give painful or undesirable consequences in order to suppress response of behavior reappeared in the future (as cited in Chen, 2011). Advocated by Holth (2005), punishment is defined as a

procedure in which certain responses (impropriate action or behavior) have consequences, those responses decrease in frequency, and the decrease in frequency occurs because of the response–consequence relation, and not for some other reason. If a thing can be reducing an impropriate behavior reappeared, then it is meant as punishment.

Form of Reward and Punishment

Form of reward. Reward in its implementation can be in many forms. Rewards can be in form of verbal praise, good grade, or feeling of satisfaction (Chen, 2011). According to Moberly et al. (2005), rewards take various forms of stickers, candy, treats, pencils, prizes, additional privileges, certificates, praise and money. Partin (2009) categorized rewards in many forms. The first one is reward in form of gift or belonging such as candy, sticker, pencil, books and chocolate. The second one is reward in form of activity such as taking a break, playing games, becoming teacher assistant and borrowing things. The third form of reward is social reinforcement such as ranking, award, applause, praise, smile and admission from friends and teachers. The Last form is reward in form of intrinsic reinforcement such as jollity, goal achievement, self-satisfaction, meaningful humor and self-expression. What matters is if after the object or event is delivered contingent upon the performance of a behavior, and the behavior becomes more likely to occur under similar conditions in the future, so the object or event to be classified as a reward, or reinforcer (Horner & Spaulding, 2009). Therefore, if the given things, objects or events increase the frequency of the response of behavior, those mean reward.

Form of Punishment. Researchers identify several forms of punishment in its use. The use of punishment often appears in the term of “consequences”, such as

losing recess, seeing the principal, giving up privileges and having “time-out” as a result of inappropriate behaviors (Moberly, 2005). Verbal interaction like reprimand is a kind of punishment too (Cohen et al., 2010). Loss of desired things and existence of undesired things are forms of punishment as Skinner explains that punishment is a procedure including either the removal of a positive reinforcer, or the presentation of a negative reinforcer or aversive stimulus (Holth, 2005). Maag (2001) mentioned forms of punishment that are still used by schools are in-school or out-of-school suspension, expulsion, fines, detention, restitution, and even corporal punishment. Corporal punishment is physically punishing students and inflicting pain (Richardson, Rosenthal & Burak, 2012). Besides the corporal punishment, Leung (1991) made categories for punishment items. The first item is symbolic like “placed on report” and demerit. The second item is teacher-based such as teacher telling off, sent to principal, teacher watching closely, low/bad marks on work and private chat with teacher. The third item is curtailment of activity such as given lines, extra homework, sent out of room or to special room and no favorite activity. The last one is home-linked like bad report, bad note to parents and parents come to school. Those things are some forms of punishment existed in common learnings.

Effect of Reward and Punishment in Learning

From the theoretical base and definition of reward and punishment, it could be seen that both the reward and punishment have effects in controlling behavior. Reward may reinforce the behavior in frequent use in which it is nice behavior, and punishment is used to decrease inappropriate behavior in its frequent use. For the further result of the use of reward and punishment in learning, it has a probability, either students will be motivated or demotivated if there are reward and punishment

following up for doing some actions or tasks. The following points will detail the effects of both reward and punishment

The effect of reward. Reward has many impacts toward students, and some experts explain that it has good effects for students. Ilegbusi (2013) stated that “If a child knows that they will get a reward for completing a certain task, he will be motivated to work hard to obtain the reward” (p. 36). He also believed that rewards may change the interest of actual life situations in which an activity originally disliked becomes liked, and the interest may be sustained for some time beyond the immediate present (Ilegbusi, 2013). According to Horner and Spaulding (2009), “Encouragement, guidance and reward of appropriate approximations of successful behavior are helpful for students in building the skills that can then be sustained by the natural consequences from reading well, joining games with peers, or playing a musical instrument” (p.4). Then, schools with clearly defined behavioral expectations and formal strategies for acknowledging (rewarding) appropriate behavior are perceived as safer, more effective learning environments.

Research also shows that reward has become a good method on the improvement of student achievement. An experiment by Hurlock on that relative effectiveness of these forms of rewards showed that school mathematics improved under praise (Ilegbusi, 2013). From another experiment, Ilegbusi (2013) believed that teacher that encouraged a warm praise for students’ works will increase their motivations, and their scores increased. The praised group continued to work even when the teacher was away and got along better as a team. Student achievement truly can be improved through the application of reward.

Even though some researchers see reward has a good impact, the other researchers see that reward has a bad impact. Moberly et al. (2005) clarified “the use of rewards will interfere relationships of children with peers and adults, establishes an air of competition and kills creativity and interest in the task” (p. 360). Teachers become goody dispensers or enforcers. The caring alliance, partnership in learning and community ethos that teachers seek to establish are damaged. Kohn also suggested that praise can be salient, manipulative, expected and as detrimental as other rewards, causing intrinsic motivation to decline (as cited in Moberly et al., 2005). According to Gilkey (2014), recent entire generations have been working exclusively for the grade or the rewards of an immediate and tangible nature. The impact has led to consequences in which students lose peer relationship and motivation for a more engaged yet less immediately tangible experience of learning and comprehension. The bad effects of reward is seen really happened, and it is a very strong argument.

The effect of punishment. Researchers has some arguments about the effect of punishment. The use of punishment has both positive and negative effect (Ilegbusi, 2013). The arguments of researchers still remain to be debated.

Skinner described three main effects through which punishment could indirectly results in a reduced probability of the punished behavior (Holth, 2005). First, an aversive stimulus (punishment) may elicit responses which are incompatible with the punished response (e.g., "When we stop a child from giggling in church by pinching it severely, the pinch elicits responses which are incompatible with laughing and powerful enough to suppress it"). Second, previously punished behavior becomes the source of conditioned stimuli which evoke incompatible

behavior. (e.g., "When a child who has been pinched for giggling starts to giggle upon a later occasion, his own behavior may supply conditioned stimuli which, like the mother's threatening gesture, evoke opposed emotional responses"). Third, behavior which reduces the conditioned aversive stimulation arising from the behavior itself or from concurrent circumstances, will be reinforced. (e.g., following punishment, the subject may not simply stop engaging in the punished behavior, but may also show a marked resistance if manually prompted).

In other case, Moberly, Wadder and Duff (2005) explained that, "the use of punishment also brings consequences" (p. 360). Punishment can lead a child to three responses: calculation of risks, blind conformity or revolt (Kamii as cited in Moberly et al., 2005). According to Kohn, punishment can lead to children feeling anger, defiance and wanting revenge (as cited in Moberly et al., 2005). These feelings certainly are not conducive to building a caring community or fostering social competence in children. The dispensing of punishments is simply another way of adults exercising power over children.

Student Motivation Related to Reward and Punishment in Learning

Definition of motivation. Motivation is an independent internal drive owned by the individuals (Ferguson as cited in Matera, 2010). Motivation refers to the reason that underlies a behavior (Lai, 2011). As cited Lai (2011), Gredler, Broussard and Garrison generally described motivation as the trait that moves us to do or not to do something. Anything that becomes the reason or purpose to do something can be called motivation. Motivation is simply defined as something what moves people to do action.

Kinds of motivation. Generally, motivation is divided into two kinds. The first one is extrinsic motivation, engagement in the activity (learning process) to achieve a reward or avoid of a punishment, and the second one is intrinsic motivation, engagement in the activity where the individual finds satisfaction and enjoyment (Matera, 2010). Intrinsic motivation is motivation stimulated by personal enjoyment, interest, or pleasure and extrinsic motivation is motivation governed by reinforcement contingencies (Lai, 2011). In educational case, there is called “academic motivation”. According to Gottfried, academic motivation is the enjoyment of school learning characterized by a mastery orientation, curiosity, persistence, task-endogen and the learning of challenging, difficult, and new tasks (as cited in Lai, 2011). Intrinsic motivation and extrinsic motivation are the general kinds of motivation, and it can broadly develop to other specific area like education area.

Perceptions of the effect of reward and punishment toward student motivation in learning. Motivation has a strong relation to reward and punishment as Matera (2010) explained that level of student motivation influenced by external reinforcement (reward and punishment). In the relation of reward and punishment toward student motivation, Banko, Cameron, Pierce, and So indicate that student motivation levels increase when rewards are elicited, but Kohn argues that once the rewards are no longer distributed to these same students, their intrinsic motivation to complete the same task decreased and even damaged (Matera, 2010). Reward and punishment really do have a connection to student motivation, and researchers have done various studies about this case.

According to Ilegbusi (2013), the investigation so far made into this reward and punishment problem have given controversial result, and some of them is arguing positively while some is arguing negatively. The proponents of the adoption of reward and punishment system believe in the use of reward and punishment to motivate students is good. Extrinsic tangible reward that is given makes students motivated to learn as they will be motivated to work hard (Ilegbusi, 2013). It even occurs for intangible reward as Moberly et al. (2005) proposed the verbal acknowledgement or praise from the teacher have the same effect as stickers and candy (tangible reward). Ilegbusi (2013) added a proof from a study where a teacher that used a warm approach and encouraged students with warm praises in his class could motivate students to high marks, and it even continued when the teacher was away. He (2009, p.36) also added, “Students who are successful and who therefore derive satisfaction from a learning activity are motivated toward additional learning. Lee Canter’s theory of discipline and behavior management points teachers to recognize positive behaviors and to use discipline hierarchy of consequences for inappropriate behaviors in order to affects student motivation positively (Moberly et al., 2005). Punishment itself is positively able to eliminate wrong response (behavior or action) and speed up learning as a common-sense that someone will not continue to do what was punished (Ilegbusi, 2013). Later, it affects strengthening the motive (motivation) to learn or to do works of students. Punishment has reverse effect from reward to students behavior like inappropriate behavior reappears after the temporary punishment is taken off (Matera, 2010). We see that punishment is needed to move (motivate) students both to avoid and not to repeat inappropriate behavior. Those who believe in positive effects of this issue can rely on the explanation above.

In other perspective, some studies have been seeing this issue impacts negatively to students. Ilegbusi (2013) in his observation, made a statement that this forms (reward and punishment) of motivation effects seem fairly clear less generally and less permanently effective. Wittmer and Honig in Moberly et al. (2005, p.361) believed that with the increase in the use of external reinforcement, children's social behavior and internal rewards may decrease. Horner et al. (2009) had a concern pointing that the formal use of reward in school causes students failed to develop their intrinsic motivation or self-managed motivation, and it is supported by Moberly et al. (2005) that a reward can be manipulative to cause intrinsic motivation to decline. Sullo (2009) had a notion that bestowing external reward can interfere in students' natural desire to learn. He found that students who are bounded to external reward (eg. watching movie and homework pass) show no evidence being excited to learning and developing new competence again. According to Sullo (2009), "the natural reward for learning is the good feeling we experience when we accomplish something, not being rewarded" (p. 33). For the role of punishment in motivating students, Ilegbusi (2013) told there are more controversies about it since the beginning. Earlier findings simply stated that punishing wrong responses removes them and speed up learning, but later findings indicated that the conditioning of fear of punishment is the primary consideration causing that removal of the punished response. Students might be motivated to high marks in the class, but students motivated by fear of punishment will stop work as soon as the teacher left the class since it is difficult to use punishment effectively to motivate learning of a more permanent character. Philpot in Matera (2010) said punishment handed out to the student is a clear opportunity for him or her to become disinterested or emotionally detached from the person, assignment, or even the environment. That statement

show that student motivation can be decreased since students get disinterested or detached from what is related and who punished them. In addition of Ilegbusi (2013), “punishment is mortifying, produces anxiety and is fraught with hazards in teacher-students relationship” (p. 38). Those are how some studies show their results arguing reward and punishment actually have bad influences on student motivation through manipulative ways.

An Overview of the Implementation of Reward and Punishment at EED UMY

Lecturers of EED UMY have some rules and regulations in their class. The rules and regulations include reward and punishment systems, and they are agreed by both the lecturer and students. It has been agreed in the beginning of the class, and it sometimes changes along the class running.

Based on the researcher's experience, reward may exist even though it is not previously informed to students. Rewards that exist are like gifts, compliments, applause and privileges (activity). The privileges can be an extra point or score and a chance to leave the class earlier. Appreciation to students given along the feedback from lecturers is a reward because it is really needed by students due to their progress and achievement. Those are all to encourage students to be active in the class and motivate them in learning. Reward method at EED UMY is still used by the lecturers.

Punishment system implemented by lecturers of EED UMY is usually similar; for example, the late-comers, in which students who come late more than fifteen until twenty minutes, will be considered absent even though they are allowed to join the class, but there is also a chance that they will be locked outside. Lateness for submitting assignment is also a strong rule. Students who are late to

submit the assignment will get score deduction, and the deduction will increase each day the assignment is still not submitted. Plagiarism is very not welcoming at EED UMY. If students are caught doing plagiarism, their assignment will be scored zero. Those are the examples of punishment implemented by lecturers of EED UMY.

Reward and punishment are a method that keeps used and needed by lecturers of EED UMY until now. They adopt it to motivate students and maintain the discipline in learning. Both students and lecturers are aware of this situation and what it is meant for.

Review of Related Study

For additional resource, the researcher reviews some related studies. Two sources are reviewed and will be about how reward and punishment are used in learning. The studies will be elaborated briefly in the following points, and the connection among the reviews and this study will be seen to complete this study.

First is a study from Langa (2014) from University of Pitești, Romania. The purpose of the study is to identify teachers' manner of applying the reward and punishment duet in order to decrease the frequency of pupils' undesirable behaviors. The conclusion of his study asserted that both two novice and experienced teachers have different manners in applying reward and punishment. The experienced teachers are more consistent in applying punishments for immediately correcting the undesirable behaviors of students; the novice teachers apply more frequently rewards as soon as pupils have a desirable behavior; experienced teachers act by foreseeing long-term consequences when giving reward and punishment; and both beginning and experienced teachers consider that students are aware why they are punished.

Second is a study by Wächter, Lungu, Liu, Willingham, and Ashe (2009). Their study focused on how reward and punishment have differential effects on procedural learning. Ninety-one participants of this study were asked to do an implicit motor learning task. The study findings conclude that reward leads to enhancement of learning in human subjects, where as punishment is associated only with improvement in motor performance.

Those two reviewed studies have linked correlation to this study that have the same field of interest, which are reward and punishment. Yet, this study will go deeper in digging up students' perception on reward and punishment implemented in university level (EED UMY), and its impact on their motivation in learning.

Conceptual Framework

The idea to implement reward and punishment into learning presents in Behaviorism since the behaviorists believe in stimulus-response cycle and reinforcement is needed in learning (Chen, 2011). The implementation of reward and punishment is still being used in schools. According to Ilegbusi (2013), "Rewards and punishments have become permanent features of the classroom situation and parents even use them in those aspects which concern school work" (p. 38). The implementation of reward and punishment including how to implement it has both positive and negative effect and outcome. Due to specific student motivation issue, it has led to many controversies about its use in various forms to motivate students in learning. In a big number of studies, some researches argue positively while the others argue negatively.

Based on that and the researcher experience as a student who see the same issues, this study, "Students' perception on reward and punishment implemented at

English Education Department of University Muhammadiyah Yogyakarta”, will expose the effect of reward and punishment implemented at EED UMY toward student motivation in learning. The conceptual framework of this study is described on the following figure:

Figure 1. Conceptual Framework

