

The Effect of Strengthening (Reinforcement) and Confidence on the Skills of Passing Techniques in Volleyball Games at SMA Negeri 6 Padangsidempuan City

DOI: <https://doi.org/10.47175/rissj.v4i2.677>

| Asman Rafsanjani Daulay^{1,*} | Sanusi Hasibuan² | Ibrahim³ |
 | Indra Kasih⁴ |

^{1,2,3,4} Sports Education,
 University Negeri Medan,
 Medan, Indonesia

*asmandaulay007@gmail.com

ABSTRACT

The purpose of this study was to determine positive and negative reinforcement on students' passing skills and self-confidence. The design used in this study is a 2x2 factorial. The 96 students who met the requirements were divided into four groups using the matching pairing technique so that each group had 24 samples. The results of this study are: 1. In this study it was found that $F_h = 8.82$ and F_t at $dk (3.24) = 3.10$, from this calculation it can be concluded that $F_h > F_t$ means that there is a significant difference between reinforcement) positive and negative reinforcement of basic volleyball technical skills. 2. In this study it was found that $F_h = 188.41$ and F_t at $dk (3.24) = 3.10$, from these calculations it can be concluded that $F_h > F_t$. it can be concluded that there is an interaction between reinforcement and confidence in the basic technical skills of volleyball. 3. Calculation of the tukey test in the study with a comparison of A1B1 and A2B1, it is obtained that $Q_h = 23.19$ and $Q_t (2:48) = 3.20$. So it can be concluded that $Q_h > Q_t$. This means that there is a significant difference between positive reinforcement and negative reinforcement on the basic volleyball game technical skills for students with high self-confidence. 4. The calculation of the tukey test in the study with a comparison of A2B2 and A2B2, it is obtained that $Q_h = 15.60$ and $Q_t (2:48) = 3.20$. So it can be concluded that $Q_h > Q_t$. This means that there is a significant difference between positive reinforcement and negative reinforcement on the basic volleyball game technical skills for students with low self-esteem.

KEYWORDS

reinforcement; confidence; down pass in volleyball

INTRODUCTION

Education is one aspect of life that is fundamental to the development of a country. Education can support future development that is able to develop the potential of students, so that students can overcome the problems of life they face. Education can create intelligent, insightful, skilled, competitive, and qualified generations who are expected to become generations who can change the nation towards a better direction. In accordance with the mandate of the Government Regulation concerning National Education Standards, one of the standards that must be developed is process standards. Process standards are national education standards related to the implementation of learning in educational units to achieve graduate competence. According to Pardijono, Taufiq (2011:1) "Volleyball is a fast-paced game, so the time to play the ball is very limited, and if you don't master perfect

basic techniques it will allow bigger technical errors". Basic volleyball techniques include passing, serving, spike and block techniques in volleyball games.

Based on initial observations made on class XI students at Public High Schools in Padangsidempuan Utara District, namely SMA Negeri 1 with a total of 313 students, SMA Negeri 2 with 290 people and SMA Negeri 6 with 307 people, a total of 910 people, including 520 people male students and 390 female students. Out of a total of 520 male students, 170 students (32.4%) experienced a lack of confidence and 350 students (67.6%) were afraid of making mistakes. Whereas for female students, there were 240 students (61.5%) who experienced a lack of self-confidence and 150 students who were afraid of making mistakes (38.5%). It was found that students who felt less confident and afraid of making mistakes were due to several factors, namely being in puberty, not mastering and understanding learning material well, students who were overweight, and students who felt different from other students (disabilities). Learning physical education is a complex learning, because the teacher not only pays attention to children as a collection of different individuals, but the teacher must also be able to demonstrate scenes of movement activity in their teaching assignments. In an effort to improve students' movement abilities, a teacher is also required to know how to provide reinforcement so that students are interested in doing motion tasks even better.

This is known as reinforcement. Reinforcement is given to students as a reinforcement/reinforcer so that the performance is carried out better. The physical education teacher is also tasked with organizing and coordinating student activities. Reinforcement will have a significant effect if it is given immediately after the desired behavior is carried out by students. The reason for giving immediate reinforcement is to avoid other behaviors that interrupt the desired behavior. Whatever reinforcement the teacher gives to students is expected to improve students' movement skills for the better. Because basically giving reinforcement to provide learning motivation for students, besides that students are expected to be more confident, brave and not inferior when carrying out physical activities in physical education learning at school.

Based on this background, the authors are interested in researching "The Effect of Strengthening (Reinforcement) and Confidence on the Skills of Passing Techniques in Volleyball Games at SMA Negeri 6 Padangsidempuan City".

RESEARCH METHODS

The design used in this study is a 2x2 factorial. Factorial design is the experimental units into the cell in such a random way, so that each experimental unit in each cell is relatively homogeneous. (Sudjana, Experimental Design and Analysis, 2002). In detail the 2x2 factorial design of the study can be seen in the table below:

Table 1. 2x2 Factorial Research Design

	Reinforcement (A)	Reinforcement (+) (A1)	Reinforcement (-) (A2)
Self Confidence (B)			
High Self Confidence (B1)		A1B1	A2B1
Low Self Confidence (B2)		A1B2	A2B2
Overall		A1	A2

Information :

A1B1: A group of students who have high self-confidence who are given positive reinforcement (+).
 A2B1: A group of students who have high self-esteem who are given negative reinforcement (-).

A1B2: A group of students who have low self-esteem who are given positive reinforcement (+).
 A2B2: A group of students who have low self-esteem who are given negative reinforcement (-).

RESULTS AND DISCUSSION

This research was conducted in class XI/11 SMAN 6 Padangsidimpuan. The result of this study is the application of good reinforcement for teachers. This research is also to determine the effect of giving reinforcement on the skills of underhand passing in volleyball games. The experiment uses a 2x2 factorial experimental model (Sudjana, Experimental Design and Analysis, 2002: 149). This experimental design model is a general model that is used as a guide in making an effective design.

1. Positive Reinforcement Group With High Confidence (A1B1)

The Positive Reinforcement Group with High Confidence (A1B1) obtained a total of 659, with a mean value of 27.46 and an SD value of 3.18. The following are the intervals in group A1B1:

Table 2. Intervals in group A1B1

No	Interval	N	%
1	22-23	2	8.33
2	24-25	6	25
3	26-27	4	16.67
4	28-29	5	20.83
5	30-31	4	16.67
6	32-33	3	12.5
		24	100

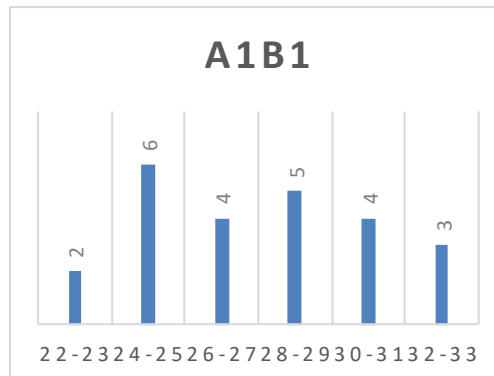


Figure 1. Intervals in group A1B1

In the A1B1 group it was found that the interval was 24-25 with a total of n 4 people (25%). And continued at intervals of 26-27 with a total of n 4 people (16.67%).

2. Positive Reinforcement Group With Low Self Confidence (A1B2)

The Positive Reinforcement Group with Low Confidence (A1B2) obtained a total score of 522, with a mean value of 21.75 and an SD value of 3.39. The following are the intervals in group A1B2 :

Table 3. Intervals in group A1B2

No	Interval	N	%
1	17-18	5	20.83
2	19-20	5	20.83
3	21-22	4	16.67
4	23-24	3	12.50
5	25-26	5	20.83
6	27-28	2	8.33
		24	100

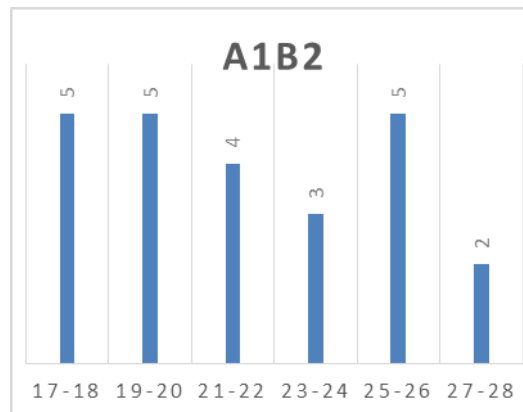


Figure 2. Intervals in group A1B2

In the A1B2 group it was found that the intervals were 17-18, 19-20 and 25-26 with a total of n 5 people (20.83%). And continued at intervals of 21-22 with a total of n 4 people (16.67%).

3. Negative Reinforcement Group With High Confidence (A2B1)

The Negative Reinforcement Group with High Confidence (A2B1) obtained a total of 525, a mean value of 21.88 and an SD value of 4.44. The following is the interval for group A2B1 as follows:

Table 4. Intervals in group A2B1

No	Interval	N	%
1	14-16	3	12.50
2	17-19	4	16.67
3	20-22	8	33.33
4	23-25	3	12.50
5	25-28	3	12.50
6	29-31	3	12.50
		24	100

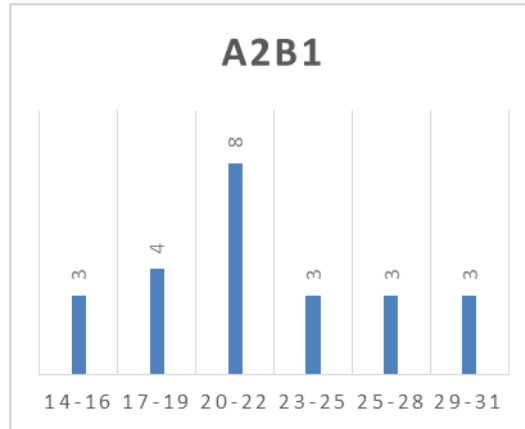


Figure 3. Intervals in group A2B1

In the A2B1 group it was found that the interval was 20-22 with a total of n 8 people (33.33%). And continued at intervals of 17-19 with a total of n 4 people (16.67%).

4. Negative Reinforcement Group With Low Confidence (A2B2)

The Negative Reinforcement Group with Low Self-Confidence (A2B2) obtained a score of 730, with a mean value of 30.42 and an SD value of 2.75. The following intervals in group A2B2 are:

Table 5. Intervals in group A2B2

No	Interval	N	%
1	25-26	2	8.33
2	27-28	3	12.50
3	29-30	7	29.17
4	31-32	5	20.83
5	33-34	5	20.83
6	35-36	2	8.33
		24	100

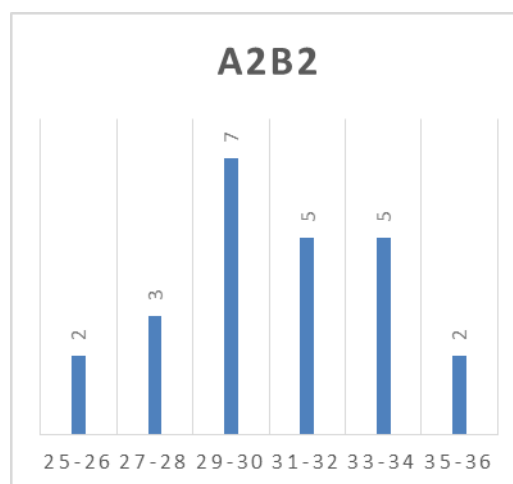


Figure 4. Intervals in group A2B2

In the A2B2 group it was found that the interval was 29-30 with a total of n 7 people (29.17%). And continued at intervals of 31-32, 33-34 with a total of n 5 people (20.83%).

Discussion

1. There is a significant difference between positive reinforcement and negative reinforcement on basic volleyball technical skills.

In this study it was found that $F_h = 8.82$ and F_t at $dk (3.24) = 3.10$, from this calculation it can be concluded that $F_h > F_t$ means that there is a significant difference between positive reinforcement and reinforcement negative impact on basic volleyball technique skills.

This research is relevant to Maftuhah's research (2020). This study examines positive reinforcement techniques to improve social interaction skills in schizophrenic patients. The subject in this study was a 39-year-old man diagnosed with schizophrenia. The subject has difficulty interacting with other people due to the subject's unpleasant experience. The research method used is qualitative with an experimental approach. The experimental research design used in this study was Single Subject Research (SSR) with a single subject type (single cube design). Retrieval of data using psychological tests and observation. The data analysis used is descriptive analysis in the form of graphical visual analysis. The results of the study show that there is a positive effect of using positive reinforcement techniques on the ability to social interaction as indicated by the overlapping data in the analysis between conditions A1/B and B/A2 of 0%, which means that the smaller the percentage of overlap, the greater the influence on target behavior. This was also supported by an increase in the average score of social interaction skills obtained during the baseline-1, intervention, and baseline-2 phases, namely 1.3, increasing to 7 and increasing again to 10.

Then it is relevant to Wira Soliana's research (2020) In general, the self-confidence of students at SMP Negeri 7 Sijunjung before being given negative reinforcement was in the fairly confident category. However, student self-confidence still needs to be increased so that students are more confident, increasing student self-confidence can be through giving reinforcement.

Giving reinforcement to students will help increase the confidence of these students. Confidence is needed by students in learning. Komara (2016:) states that: Confidence is very influential and determines the success of students in their lives. Confidence greatly influences success in studying and working, in the family environment, and in social relations with other people. Individuals who have good self-confidence have confidence and always try to develop their potential to the fullest and show the best of themselves as evidenced by an achievement. On the other hand, students who have poor self-confidence are unable to develop their talents, interests, and potentials and are unable to actualize themselves maximally and passively.

The teacher uses variations in giving praise seriously and relevantly according to the context so that students don't feel bored. This is in accordance with the principles when providing reinforcement according to Barnawi and Mohammad Arifin (2012) that in providing important reinforcement it must be in accordance with the actions taken by the student, giving excessive reinforcement will be fatal. For this reason, the teacher must pay attention to the principles of giving reinforcement. During the eight meetings the teacher always made variations in providing reinforcement by combining several types of reinforcement to be given to students or a group of students.

This is in line with the opinion of Marno and M. Idris (2014) which put forward several objectives of providing reinforcement aimed at increasing student attention in the learning process and generating, maintaining, and increasing student learning motivation.

2. There is an interaction between reinforcement and confidence in the basic technical skills of volleyball.

Learning success achieved by students is strongly influenced by internal and external factors. In this study, what will be discussed is external factors in the form of reinforcement (Reinforcement). Reinforcement is one of the teaching skills that must be mastered by the teacher, so that it can motivate students to take lessons in class. Reinforcement can be positive and negative reinforcement. In general, appreciation has a positive influence on human life, because it encourages and improves a person's behavior and increases his business. It's also not uncommon for someone to want to be the best and get praise, of course within reasonable limits. You can imagine what happens to sports athletes if they don't compete and get awards.

Reinforcement can actually reduce the educational and learning objectives of students. The reinforcement given is very fast and often may interfere or hinder the development of students' ideas and interactions. When students are involved in problem solving activities, continuous enrichment can be a distraction to students' thinking processes. Reinforcement can also interfere with interactions between students and students. Teachers react to each student's comment, then refocus students' attention on their own discussion, displaying the possibility of student-student interaction.

The form of reinforcement given by the teacher to students is in the form of positive and negative reinforcement. Positive reinforcement is something that when given increases behavior. Positive reinforcement includes giving numbers, prizes, verbal, gestures, approaches, touches, fun activities, giving symbols or objects. Meanwhile, negative reinforcement is something that if removed will increase the response. Negative reinforcement can take the form of letting go of a less liked task or situation. In learning, giving reinforcement can be designed to help students' understanding of learning such as providing opportunities for students to manipulate concrete objects related to learning.

3. There is a significant difference between positive reinforcement and negative reinforcement on basic volleyball game technical skills for students with high self-confidence.

Djamarah (2005) states that one of the goals of reinforcement is to develop students' self-confidence to self-regulate in learning. According to Ormrod (2008: 433), "Reinforcement is any consequence that increases the frequency of a particular behavior, regardless of whether people find the consequence enjoyable or not. BK teachers, subject teachers, school principals should further increase the use of both positive and negative reinforcement, because providing this reinforcement will help and encourage students to increase their self-confidence.

Behavioral therapy with positive reinforcement techniques is a process of strengthening operant behavior (positive or negative reinforcement) which can result in the behavior repeating or disappearing as desired. Positive reinforcement is reinforcement based on the principle that the frequency of responses increases because it is followed by a supportive stimulus (rewarding). Forms of positive reinforcement can be in the form of gifts, behavior or awards (Martin, 2015).

According to Wira Solina (2020) Negative reinforcement can help students to increase their self-confidence. In other words, educators really have to apply negative reinforcement methods in learning, because these methods are able to increase the self-confidence of these students. Praise or positive responses given by educators will make students feel valued, so that they can become motivators to be better.

Tukey test calculations in the study with a comparison of A1B1 and A2B1, it was found that $Q_h = 23.19$ and $Q_t (2:48) = 3.20$. So it can be concluded that $Q_h > Q_t$. This means that

there is a significant difference between positive reinforcement and negative reinforcement on the basic volleyball game technical skills for students with high self-confidence.

The award that is often given by the teacher almost every day while the observation is being carried out is that the teacher gives additional points to students for positive behavior. Conversely, if a student's behavior leads to a negative direction such as not doing homework, being often nosy, unable to do the movement correctly the teacher will provide negative reinforcement. This is in line with Barnawi and Mohammad Arifin (2012) which is reinforced by Moh.Uzer Usman (2013) who argues that reinforcement in the form of symbols can be in the form of the teacher giving a check mark (✓) on the work of students or the teacher giving written comments on the results of student work. For example, giving things that are not worth much, such as stickers, plastic stars, certificates, badges, pens, pencils, notebooks, erasers, and so on. Giving reinforcement in the form of objects should not be too often so that the purpose of reinforcement does not deviate.

4. There is a significant difference between positive reinforcement and negative reinforcement on basic volleyball game technical skills for students with low self-esteem. Wira Solina (2020) Giving reinforcement will be effective if it is carried out in accordance with the considerations or conditions for giving reinforcement. If reinforcement is given in accordance with the right considerations and conditions, then reinforcement will help increase student confidence, but if it is not in accordance with these conditions reinforcement will reduce the student's self-confidence.

Requirements or considerations for implementing reinforcement (Prayitno, 2009) are clear reinforcement targets, clear timing of reinforcement, type of reinforcement to be given, how to provide reinforcement and place of reinforcement. Proper reinforcement will help students to increase self-confidence.

The direct effect of positive reinforcement is to increase the frequency of the response due to the immediate reinforcement consequences. Meanwhile, the indirect effect of the principle of reinforcement is to strengthen a response because it will be followed by a reinforcer, even though the reinforcer is not given at the same time. Positive reinforcement techniques are part of operant conditioning theory, which is a process of strengthening operant behavior (positive or negative reinforcement). Reinforcement for certain behaviors can result in these behaviors repeating or disappearing as desired (Martin, 2015).

The negative reinforcement method according to Wira Solina (2020) can help students to increase their self-confidence. In other words, educators really have to apply negative reinforcement methods in learning, because these methods are able to increase the self-confidence of these students. Praise or positive responses given by educators will make students feel valued, so that they can become motivators to be better.

Tukey test calculations in the study with a comparison of A2B2 and A2B2, it was found that $Q_h = 15.60$ and $Q_t (2:48) = 3.20$. So it can be concluded that $Q_h > Q_t$. This means that there is a significant difference between positive reinforcement and negative reinforcement on the basic volleyball game technical skills for students with low self-esteem.

This research is relevant to the research of Eka Puspita Sari (2017) This study examines the influence of teacher skills in providing reinforcement to the learning activities of class VIII students at MTs Aulia Palembang with the statement that there is an effect of reinforcement on student learning activities in class VIII MTs Aulia Palembang and reinforcement has an effect on student learning activities because in this learning requires students to be active, the teacher provides opportunities for students to be enthusiastic and enthusiastic in participating in learning and can better understand what is conveyed by the teacher to students.

CONCLUSION

Based on the results of the research and discussion, it can be concluded that:

1. In this study it was found that $F_h = 8.82$ and F_t at $dk(3.24) = 3.10$, from this calculation it can be concluded that $F_h > F_t$ means that there is a significant difference between positive reinforcement and reinforcement (negative reinforcement on basic technical skills in volleyball).
2. In this study it was found that $F_h = 188.41$ and F_t at $dk(3.24) = 3.10$, from these calculations it can be concluded that $F_h > F_t$. it can be concluded that there is an interaction between reinforcement and confidence in the basic technical skills of volleyball.
3. Calculation of the tukey test in the study with a comparison of A1B1 and A2B1, it is obtained that $Q_h = 23.19$ and $Q_t(2:48) = 3.20$. So it can be concluded that $Q_h > Q_t$. This means that there is a significant difference between positive reinforcement and negative reinforcement on the basic volleyball game technical skills for students with high self-confidence.
4. The calculation of the tukey test in the study with a comparison of A2B2 and A2B2, it is obtained that $Q_h = 15.60$ and $Q_t(2:48) = 3.20$. So it can be concluded that $Q_h > Q_t$. This means that there is a significant difference between positive reinforcement and negative reinforcement on the basic volleyball game technical skills for students with low self-confidence.

REFERENCES

- Barnawi & Mohammad Arifin. (2012). Etika dan Profesi Kependidikan. Yogyakarta: ArRuzz
- Djamarah, Syaeful Bahri. (2005). Guru dan Anak Didik dalam Interaksi Anak Didik, Rineka Cipta, Jakarta.
- Eka, Puspita Sari. (2021). Pengaruh Model Multipel Representasi Terhadap Higher Order Thinking Skills Dan Kemandirian Belajar Peserta Didik Kelas X Pada Mata Pelajaran Biologi. Undergraduate thesis, UIN Raden Intan Lampung.
- Komara, I.B. 2016. The Relationship between Self-Confidence and Student Learning Achievement and Career Planning. *psychopedia*. 5(1). p. 34.
- Maftuhah. (2020). Positive Reinforcement Techniques to Improve Social Interaction Skills in Schizophrenia Cases. *Philanthropy Journal of Psychology* Volume 4 Number 2 (2020), 158-171 ISSN 2580-6076 (Print), ISSN 2580-8532 (Online).
- Marno and Idris, M. (2014). Strategi, Model, Metode, dan Teknik Mengajar. Yogyakarta: Ar-ruzz Media
- Martin, G. & Pear, J. (2015). Behavioral modification of meaning and its application. (Yogyakarta: Student Library).
- Moh. Uzer Usman. (2013). Menjadi Guru Profesional. Bandung: PT Remaja Rosdakarya
- Pardijono, Taufiq (2011). Volleyball Textbook. Surabaya: Unesa University Press.
- Prayitno. 2009. Basic Theory and Praxis. Jakarta: Grasindo.
- Sudjana. (2002). Desain dan Analisis Eksperimen. Bandung: Tarsito
- Wira Solina. (2020). The Effectiveness of Negative Reinforcement in Increasing Student Confidence. *Journal of Neo Counseling* Volume 2 Number 2 2020.