





Conference Paper

Behavioristic Theory and Its Application in the Learning of Speech

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Abstract

The objective of this research was to test the application of Thorndike and Skinner's behavioristic learning theory, particularly in storytelling learning. The points studied were the law of readiness, the law of exercise, and the law of effect in storytelling learning in SMP 19 Surakarta. The approach employed was a descriptive qualitative approach. The subjects of the research were 7thB graders, consisting of 32 students. Techniques of collecting data used were questionnaire distribution, interview, and observation during the learning process. The object of research was speech learning, particularly storytelling. The technique of analyzing data used was an interactive model of analysis encompassing (1) data collection, (2) data reduction, (3) data display, and (4) conclusion drawing. The conclusion of research was that the application of law of readiness, law of exercise, and law of effect developed by Thorndike and Skinner effectively improved the speaking skills of students in SMP 19 Surakarta.

Keywords: behavioristic, consequential law, practice law, readiness, speaking

1. Introduction

The teacher is the key to successful learning. In the teaching-learning process, the teacher's mastery of the material to be learned and the methods of teaching are essential. In addition, the teacher should also have mastered learning theories. By being conversant in learning theories, the teacher guides students more easily to provide meaningful learning. This is in line with the appendix of National Education Minister's Regulation (*Permendiknas*) Number 16 of 2007 [1] about Standard Academic

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Qualifications and Teachers, which states that the mastery of educative learning theories and learning principles is one of the elements of pedagogic competency that a teacher should have.

Different scholars of learning psychology have different points of view and areas of emphasis with respect to the essence of learning and the process toward the change that results from learning. Learning theories include: (a) behaviorism, (b) cognitivism, (c) social psychological learning theory, and (d) Gagne's learning theory. This article will focus on behavioristic learning theory.

Adherents of behavioristic theory believe that human beings are highly affected by events in their environment that give them particular experiences. Behaviorism emphasizes what is seen (behavior) and pays less attention to what occurs in the mind [2].

Thorndike and Skinner's behavioristic learning theory is explained as follows. What is called the *law of effect*, which posits that learning will be more successful when the learner's response to a stimulus is followed immediately by a feeling of pleasure or satisfaction [3, 4]. Pleasure or satisfaction can result when students get praise or other rewards. Such a stimulus constitutes reinforcement. Stimulus-response learning theory, as proposed by Thorndike, is also called connectionism. Essentially, learning is the process of establishing a relationship between stimulus and response. There are some propositions or laws related to connectionism: the law of readiness, the law of exercise, and the law of effect. They are explained as follows.

The law of readiness explains a student's readiness for engaging in an activity. Before teaching, the teacher should help make the student ready to learn. Learning is reflected in apperception. The teacher can debrief the students in relation to the subject delivered previously, or the teacher can deliver an attractive introduction to the learning before entering into new material. For the students to be interested in learning, they should be motivated by means of hearing an explanation about the advantage of learning the material to their own lives. This learning readiness will, of course, make the students more responsive. It is in line with Sanjaya [5], who explains that, when an individual responds or acts from a position of readiness, the action or response done will give satisfaction.

The law of exercise states that, the more frequently the stimulus-response relation occurs, the stronger is the relation, and vice versa. The law of exercise basically builds on an assumption that stimulus and response will have a close (strong) relation to each other when the repetition process occurs frequently, so that engaging in an activity a greater number of times will lead to a more automatic relation. A student dealing



with a problem he/she encounters frequently will respond to it quickly, corresponding to his/her previous experience. Sanjaya [5] said that, to create a certain behavior, it should be done repeatedly.

The law of effect explains that, when an association established between stimulus and response is followed by satisfaction, it will increase over time. That means that the positive feeling resulting from a teacher's reward will give the students satisfaction and will predispose them to do or to improve what they have achieved. Praise or reward given by the teacher will affect the students positively. They will feel appreciated for their achievement, and self-satisfaction will emerge in the students as a result of their success.

Skinner states that reward or reinforcement plays a very important role in the learning process. Reward is different from reinforcement. Reward is a response that is enlivening in nature and a subjective behavior, while reinforcement is something leading to the increasing probability of a response or the more observable and measurable things [3, 6].

From some learning theories above, it can be concluded that the fundamental element of learning theories in psychology is the change of behavior occurring based on the stimulus-response (S-R) paradigm, the process of responding to something specifically coming from outside. A stimulus in learning is a stimulation given to the students to improve their learning spirit.

In the present study, conducted in SMP 19 Surakarta, Thorndike and Skinner's behavioristic learning theory has been applied to storytelling learning. Therefore, this article will describe that application and its results.

2. Methods

This research took place in SMP Negeri 19 Surakarta using a descriptive qualitative approach. The subject of research was the $7^{th}B$ grade class consisting of 32 students. Data collection was conducted through questionnaire distribution, interview, and observation during the learning process. The object of research was speech learning, particularly storytelling. The technique of data analysis used was an interactive model encompassing (1) data collection, (2) data reduction, (3) data display, and (4) conclusion drawing.



3. Results

Learning with stimulus-response methods is an effective strategy to apply to storytelling skill. Speaking learning strategy refers to stimulus-response principle [7, 8]. The stimulus-response paradigm is a fundamental characteristic of behaviorist thought. The application of learning theory suggested by Thorndike and Skinner has been practiced by students and teachers of SMP 19 Surakarta with the following results.

3.1. Law of readiness

The application of the law of readiness in learning can be described as follows. Considering the result of observation on SMP 19, it can be found that teachers seem to teach enthusiastically. Before the learning begins, the teacher discusses the lesson learned in the previous meeting. The teacher, along with students, makes apperception by means of debriefing about the material from the previous session. Afterwards, the teacher announces the learning objectives. The teacher motivates the students by informing them that public speaking skill is very important to master. Furthermore, the teacher explains that the ability to pour out ideas and thoughts into oral form is useful to support our studies, our careers, and life within society. For that reason, the teacher should be able to help resolve whatever difficulties the students may encounter.

From the observation conducted, it can be seen that students still have difficulties in speaking skills. Speaking skill in the 4th grade of SD Negeri Karanganyar 1 has not achieved the maximum outcome yet. Some students still seemed to be nervous, standing rigidly and frequently forgetting what they were going to say. In dealing with such situations, self-motivation is very important to help improve the students' selfconfidence [9].

After the students' self-confidence has grown, they will be expected to learn more actively. Successful learning can be seen, among other ways, from the students' being active. Therefore, the teacher should attempt to motivate the students to participate actively in the learning process. For that reason, teachers should give stimuli that can activate the students. Those stimuli can be debriefing, practice and exercise, summary development, critique and comment, and assignments [10].

For the students to be active, Indonesian language teachers in SMP 19 have developed stimuli that can activate the students. Giving more stimuli will result in more responses from the students. The students can also be told to write a summary of



what the teacher delivered orally. By writing their idea first, the students will have an easier time delivering it orally.

3.2. Law of exercise

In the learning of public speaking skills, the biggest problem the students encounter is the difficulty of delivering ideas, thoughts, and wishes to their teachers and friends. In addition, the students also speak hesitantly, choose words with difficulty, and speak nervously [11]. Students often find difficulty in speaking before the public. Their words and sentences are suddenly lost and discontinued. Their hearts beat very quickly and they tremble. Finally, they become nervous and can say nothing. Considering this, a learning model should be developed that can activate the students and enable them to speak self-confidently before the public [12]. The method offered is the stimulus-response cooperative script method.

The stimulus-response cooperative script method is a learning method stimulating the students to tell stories more bravely, in the context of being paired up with a partner. In each pair, both students practice storytelling in their own seats (not in front of the class). They tell their stories in turn. When A tells a story, B listens to it, and vice versa. While listening to the story, the listener makes a written assessment of the friend's storytelling method, using the assessment form (corresponding to the indicator of storytelling assessment). After the student telling the story has finished, the listener explains the strengths and the weaknesses of his/her friend's storytelling manner (method).

Peer correction technique in storytelling skill has been studied by Dewantara [13] in his research. This study found that the application of a pragmatic approach with peer correction and teacher correction techniques can improve the storytelling experience and skill in the 7^{th} E Graders of SMP Negeri 5 Negara. Peer tutorial can be structured effectively for Malaysian students. Students learn to have interaction using questions and a script.

The stimulus-response-based cooperative script method can stimulate the students to be more active and to practice more with their friends. Practice can be done both inside and outside class. If possible, practice can also occur at home (when one's partner lives nearby). For that reason, practice and repetition are effective ways of improving speaking skill.

Sanjaya explains that the implication of this principle is that, the more frequently the learning is repeated, the more the lesson is mastered. It is relevant to Dick and



Carey's [14] argument that the learning process will be successful when students practice directly and relevantly to the objective of the learning specified. Teachers should accomplish this by means of (1) giving the students the opportunity of practicing their knowledge, attitudes, and skills, and (2) giving feedback to the students' learning outcomes. In language skill learning, language practice is the important factor to improve an individual's language ability.

When the students practice language use, the teacher should give feedback to the students' learning outcomes so that the students can discover their strengths and weaknesses in language practice. From the field observation, Indonesian language teachers observed in SMP 19 show themselves to be active in giving feedback to their students' storytelling practice. Teachers can give reinforcement. Reinforcement should be given as soon as there is a correct response. With appropriate reinforcement, the students' motivation is expected to improve.

In the learning process, feedback is very important. Teachers' appropriate feedback can trigger the students' spirit. Feedback given can be information about students' learning progress, reinforcement for a correct answer, correction of an incorrect answer, comment on students' work, or comprehensive feedback on students' presentations [10]. Essentially, feedback is the teacher's response to how the students have learned, to find out whether or not the students have made progress and whether or not the students' learning outcomes and performance still need correction or improvement.

Teachers' feedback should be followed with anything that can motivate the students to have a learning spirit, as reinforcement will give the students a strong impression. Those getting praise for their success in completing their assignment or answering a question will usually want to complete subsequent assignments vigorously.

Before the students tell a story, they are told first to pay attention to how to tell a story, or modeling using a stimulus-response cooperative script method. The modeling is performed by two students. The models take turns telling a fantasy story titled *"Tempayan Retak* and *Kribo and Kriwil."* Furthermore, they assess each other based on assessment indicators including completeness, diction, sentence, smoothness, pronunciation, intonation, expression, and self-confidence. When the models tell a story before the class, all students seem to pay attention to them until they complete their story. Then, the teacher asks the students for their comments on the storytelling technique in pairs, and then the teacher explains again the assignment the students have to do after listening to the models.



Sanjaya [5] states that every specific component or behavior the students have responded with should be rewarded and reinforced in order to enhance their pleasure feeling. Students will then repeat the behavior continuously and go to the next behavioral component. An example of positive reinforcement is, among others, praise given to the students. Teachers' cheerfulness in answering the students' questions is a positive reinforcement as well. To change the students' negative behavior to the positive one, teachers should recognize the psychology that can be used to estimate (to predict) and to control student behavior.

3.3. Law of effect

In a closing activity, the teacher, along with students, makes reflections and concludes the learning material discussed that day. The teacher tells the students to form groups based on the number present and gives them homework. The teacher instructs the students to summarize a story, the title of which has been prepared first by the teacher. Students develop a framework and summarize the story in their groups.

The students willing to come to the front to tell the story first will get added value from the teacher. Skinner states that reward or reinforcement plays a very important role in the learning process. Reward is an enlivening response and a subjective behavior [3]. The reward in this instance is that the teacher gives added value to the students willing to come to the front to retell the story first. Reinforcement in the form of reward or praise will motivate the students to learn diligently and to maintain the achievement they have gained.

4. Conclusion

Considering the results of the research, the following conclusions can be drawn. Law of readiness. Learning will be successful when the teacher prepares everything well. Readiness also includes preparing the students to receive the lesson readily. For that reason, the teacher should motivate the students continuously in order to grow their self-confidence and learning spirit. Successful learning can be seen, among others, from the students' activeness. Therefore, the teacher should attempt to motivate the students to participate actively in the learning process. For that reason, the teacher should give stimuli that can activate the students. Law of Exercise. The stimulus-response-based cooperative script method is a learning method that can stimulate the students to tell a story more bravely, as storytelling is conducted with a partner. The

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learning process will be successful when students practice an activity that is directly relevant to the specified learning objective. Teachers should accomplish this by means of (1) giving the students the opportunity to practice their knowledge, attitudes, and skills, and (2) giving feedback to the students' learning outcomes. In language skill learning, language practice is the important factor to improve an individual's language ability. Law of Effect. To motivate the students, Indonesian language teachers of SMP 19 promise to give added value to the students who are willing to practice storytelling first. Reward or reinforcement plays a very important role in the learning process. Reinforcement in the form of prize or praise will motivate the students to learn diligently and to maintain the achievement they have gained. From the elaboration above, it can be concluded that the application of Thorndike and Skinner's law of readiness, law of exercise, and law of effect effectively improve the speaking skills of students in SMP 19 Surakarta.

References

- [1] Peraturan Menteri Pendidikan Nasional (Permendiknas) Nomor 16 Tahun 2007 tentang Standar Kualifikasi Akademik dan Kompetensi Guru [Regulation of the Minister of National Education (Permendiknas) Number 16 Year 2007 regarding Academic Qualification Standards and Teacher Competencies].
- [2] Aunurrahman: Belajar dan pembelajaran [Learning and learning]. Bandung: Alfabeta; 2012.
- [3] Sunardi S: Sumber belajar penunjang PLPG: materi pedagogik. Kementerian pendidikan dan kebudayaan direktorat jenderal guru dan tenaga kependidikan [Learning Resources of PLPG Support: Pedagogic Material. Ministry of Education and Culture Directorate General of Teachers and Education Personnel]; 2016
- [4] Herrnstein RJ: On the law of effect. J Exp Anal Behav. 1970; 13: 243-266.
- [5] Sanjaya W: Kurikulum dan pembelajaran: teori dan praktik pengembangan kurikulum tingkat satuan pendidikan (KTSP) [Curriculum and learning: theory and practice of curriculum development level of education unit (KTSP)]. Jakarta: Prenada Media Group; 2011.
- [6] Klinger E: Consequences of commitment to and disengagement from incentives. Psychol Rev. 1975; 82: 1-25.
- [7] Iskandarwassid, Sunendar D: Strategi pembelajaran bahasa [Language learning strategy]. Bandung: Remaja Rosdakarya; 2008.



- [8] Griffiths C, Parr JM: Language-learning strategies: teory and perception. ELT J. 2001; 55: 247-254.
- [9] Zimmerman BJ: Becoming a self-regulated learner: an overview. Theory into Pract. 2002; 41: 64-70.
- [10] Majid A: Strategi pembelajaran [Learning strategy]. Bandung: Remaja Rosdakarya;2013.
- [11] Muammar: Bahasa dan sastra dalam berbagai perspektif [Language and literature in different perspectives]. Yogyakarta: Penerbit Tiara Wacana; 2008.
- [12] Ferris D, Tagg T: Academic listening/speaking tasks for ESL students: problems, suggestions, and implications. Tesol Q. 1996; 30: 297-320.
- [13] Dewantara IPM: Penerapan pendekatan pragmatik (prinsip-prinsip penggunaan bahasa) disertai teknik koreksi sesama teman dan koreksi oleh guru untuk meningkatkan keterampilan menceritakan pengalaman pada siswa kelas viie smp negeri 5 negara [Implementation of pragmatic approach (principles of language use) accompanied by friends and correction correction technique by master to improve skill of telling of experience to students of class viie smp negeri 5 negara]. Jurnal Santiaji Pendidikan. 2013; 3: 110-121.
- [14] Dick C: The systemic design of instruction. New York: Longman; 1978.