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Contrasting Behaviorist and Constructivist Perspectives on Learning for Students with Emotional and Behavioral Disorders

Ke Shi*

Chen Xin Psychological Counselling Centre, No. 65 Youyi Street, Qingshan District, Baotou, Inner Mongolia, China

***Correspondence to:** Garry Hornby, University of Plymouth, UK and University of Silesia at Katowice, Poland; Email: skliz@qq.com

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Abstract: Behaviorism and constructivism provide different understandings of the learning process. This paper critically analyses these two learning theories in terms of how they organize and support learning and compares the different manifestations of their application with students with emotional and behavioral disorders (EBD). The author's own experiences are also used to analyze teaching practice based on these two learning theories. The article concludes by suggesting that authentic teaching situations should combine the two teaching methods and be tailored to students' needs.

Keywords: Behaviorism; Constructivism; Students with emotional and behavioral disorders

1. Introduction

This article will compare and contrast behaviorist and constructivist perspectives on learning and explore how the two theories are applied and impact the learning of students with emotional and behavioral disorders (EBD). Learning is very important for humans as all activities involve learning (McDermott, 2015). While a variety of definitions of the term 'learning' have been suggested, this paper will use the definition that most educational professionals agree with: "Learning is an enduring change in behavior, or in the capacity to behave in a given fashion, which results from practice or other forms of experience" (Schunk, 2014, p. 3). Although many people accept this definition of learning there is controversy over some issues related to learning between different theoretical perspectives.

Behaviorism has dominated the educational landscape during the 20th century (Boghossian, 2006). It states that learning involves changes in the form as

well as the frequency of observable and measurable behaviors (Ertmer & Medsker, 2013). Learning occurs when the appropriate response is given to a presented environmental stimulus. It asserts that learning happens through strengthening and maintaining the association between stimulus and response (Boghossian, 2006). Therefore, the environment is considered to be an essential factor of learning that can find which stimulus is effective for learners. Behavioral theory is concerned with observable, measurable behaviors rather than innate mental states and considers that learning is affected by these changes in behaviors (Bush, 2006). Learners are characterized as passive receivers of stimulus information in the environment rather than active participants in the learning environment.

Constructivism is dramatically different from behaviorism in explaining learning. It claims that learning is an active process, learners construct their own knowledge via their interaction with the environment, based on experience (Modritscher, 2006). Learners build their personal interpretations of the external world based on individual inter-communication and experience (Ertmer & Medsker, 2013). Since experience changes constantly, it is necessary to focus on individuals' internal worlds. This means that people's understanding and knowledge of the world is not stable but dynamic and imdicates that learning occurs in realistic settings that relate to students' life experiences. Another principle of constructivism is one of increasing awareness of the importance of key ideas and realizing that these are not isolated but relate to various concepts held by individuals (Steele, 2005). It suggests that learners should focus on the key information and its connection with previous knowledge.

In this article, students with emotional and behavioral disorders (EBD) will be focused on. EBD is complex and multidimensional, and students with EBD can present various additional challenges, such as social difficulties and mood disorders (Mundschenk, & Simpson, 2014). An explicit and unambiguous definition can lead to these students gaining the special and targeted educational approaches which they need. Throughout this article, the term 'students with EBD' refers to, "Emotional and behavioral difficulties resulting from interactions between the student, the home, and school environment, and are disturbing and restrictive for all parties since they are contrary to normal standards and values" (Buttner, Pijl, Bijstra & Bosch, 2016, p. 510). These students are often considered more difficult to teach than other students and are often excluded from general education (Wehby, Lane & Falk, 2003). Thus, it makes sense to explore how different learning theories can instruct teaching to help these students return to general education.

The analysis will be organized into sections that will explore how the two learning theories are applied with students with EBD in a comparative way. This will begin with the description of behaviorism, outlining the main aspects of it, then discussing its implications for understanding what learning "is", and how learning might be encouraged, structured or supported. The way in which behaviorism conceptualizes the learner and the way the learner might experience learning is also considered. For example, how behaviorism guides the teaching of those with EBD specifically, and whether these methods are effective and what impacts they have on teaching. Following this, I will provide personal experience and observations to analyze how far this theory explains my own experiences.

After that, the same structure is used to explore constructivism's understanding and construction of learning-related issues. It will review literature with relevant examples to support these discussions. Then, the article will conclude with an overall summary and comment on the similarities and differences of the two perspectives with regard to the teaching of students with EBD. Finally, the conclusion suggests that whereas behaviorism can effectively reduce the inappropriate behavior of students with EBD, and constructivism can improve their academic performance, the best approach is to combine the two theories in practice (Steele, 2005).

2. Exploring Behaviorist Perspectives on Learning

2.1 Overview of Behaviorist Learning Theory

Behaviorism is a branch of psychology that based is on observable behaviors and the analysis of them. Historically, it was founded by American psychologist John B. Watson (1913) and this is known today as classical behaviorism. The experiments of Pavlov's dogs and Watson's child (training little Albert) was intended to demonstrate that the human mind can

be measured, observed and modified through what is described as a type of stimulus-response (S-R) psychology (Ruiz, 2015) and individual behavior can be predictable and shaped by environmental stimuli. From this point of view, Watson refuted the earlier psychoanalytic approach by bringing scientific rigor into psychology, demonstrating that psychology is scientific and objective. He believed that all behaviors are learned, so was only concerned with overt conduct, thus ignoring personal thoughts and experiences (Todd, 1994).

Another well-known theory of behaviorism is Skinner's operational theory which is one of the focuses of this article. Skinner's model of behavior change has three aspects: a discriminative stimulus (S) causes a response (R) which is then followed by a reinforcement (S) (S-R-S) (Boghossian, 2007). For example, students who have entered kindergarten will have many responses, such as communicating with other students and walking around the classroom. As the teacher reinforces one of these reactions, such as saying hello to the teacher, the frequency of this behavior will increase. Thus, analyzing responses and providing suitable reinforcement for people is necessary for shaping behaviors. There are two types of reinforcement: positive reinforcement and negative reinforcement. Positive reinforcement involves presenting a positive stimulus (such as praise) to increase the probable conduct of the desired behavior. Negative reinforcement involves removing a negative stimulus (such as criticism) to promote some behaviors. Punishment is also an essential part of Skinner's theory which refers to removing a positive reinforcer or adding a negative reinforcer after a response to decrease the undesirable behavior. Skinner believed that learning involves shaping behavioral responses. The process of shaping not only rewards the target or desired behavior, but also involves enhancing the successive approximation of the target behavior (McLeod, 2007). Behaviors are gradually changed and shaped through reinforcement to boost the appearance of target behaviors. Successive approximation here means breaking the goal down into small units and reinforcing them step by step until reaching the goal. For instance, a teacher asks students to complete an essay, it includes proper use of punctuation, grammar and organization of structure. If students are able to use grammar correctly, the teacher will give them positive reinforcers, when they finish the introduction, the teacher will provide rewards for other aspects. Finally, students have learned to write a paper. This method is used commonly by teachers in education. Although behaviorism has received much criticism for its disregard of the role of introspection and its belief that human behavior is predictable, there is no denying that it characterizes the first half of 20th century psychology and has had a huge impact on the field of education (Ruiz, 2015). The sections that follow, will analyze behaviorism in terms of learning.

2.2 Key Assumptions and Implications of Behaviorism for Learning

2.2.1 What "is" learning, how does "learning" occur and how "learning" might be encouraged?

Behaviorism has three basic assumptions: behaviors are shaped by environment, observable and measurable behavior is the center of learning, and reinforcement is the focus of learning process (Torre, Daley, Sebastian & Elnicki, 2006). It is characterized as stimulus-response psychology to some extent. Thus, learning is considered as observable behavior changes triggered by stimuli and the environment, which are the primary elements of these changes. Learning occurs when learners give discriminatory responses following the stimuli. To shape behavior or teach students to learn knowledge, teachers should provide them with stimuli (reinforcement). Accordingly, the role of a teacher is critical in the behaviorist approach, which leads to teacher-centered teaching methods (Bush, 2006). As discussed before, reinforcement is used to increase the frequency of appropriate responses and the reinforcer can be the praise, or smile of a teacher in the classroom. This can be seen in the example of learning the English alphabet. When children learn to recite and write a letter, the teacher verbally praises the child, and when the child learns ten letters, the teacher gives the child other rewards until they learn all letters. Similarly, some punishments, such as punishing children by standing them in the corner or criticizing them in class, can also make them more likely to obey the rules. What needs to be noted is that regardless of punishment, reinforcement or other stimuli, it should be given in a timely manner after their responses. Premack's principle is rooted in reinforcement theory

and has been widely applied in education. It can be briefly stated as: high frequency activity is used as the intensifier of low frequency activity (Homme, DeBaca, Devine, Steinhorst & Rickert, 1963). An example is that one child often plays computer games (high frequency activity) rather than playing sports or reading (low frequency activity), so the teacher told him that he could only play the game after exercising or reading for an hour every day. It requires the teacher to be familiar with students' preferences. These cases indicate that learning is the alternate consequences of stimuli and learning occurs when the proper response is following the stimulus. The teacher can use stimuli and reinforcement to shape students' behavior. Although this teacher-centered method ignores individual subjective thoughts and feelings, there is no denying that behaviorism demonstrates that learning can be achieved through the process of stimulus-response.

As Schunk (1991) noted, learning is affected by the role of memory and motivation as well. Behaviorists rarely discuss memory because they do not analyze internal processes. They view motivation as explaining a rise in the number of responses (Schunk, 1991), and consider that the time and frequency of reinforcement can affect the amount of responses that occur. For example, a variable interval reinforcement schedule, which provides occasional reinforcement, is considered to be able to maintain responses for a longer period of time (Olson & Hergenhahn, 2015). This suggests that in the classroom, teachers should give students tests at irregular intervals to facilitate their motivation to learn.

Behaviorist theory also focuses on generalization, that is transfer of a learned behaviour, skill, or concept from one situation to others (Ertmer & Medsker, 2013). For example, when a student has learned some concepts about dogs, he can use those to understand cats. Thus, learning is encouraged by repeated stimuli, the rate and time of reinforcement, as well as the generalization of behaviours.

2.2.2 How do learners experience learning?

In behaviorism, learners experience some form of conditioning to produce a desirable behavioral result (Boghossian, 2006). In an academic context, successful conditioning means students can provide correct answers to questions, demonstrated through high grades in tests. Thus, learners are viewed as passive responders and engage in the learning process when they provide correct behavioral responses, which corresponds to the teacher-centered approach as noted before. According to Skinner, students gain knowledge when the relation between stimulus and response is strengthened by reinforcers (Scheurman, 1998). Teachers do not focus on the mental activities of learners, since students are seen as unreflective responders to stimuli and experience learning passively without subjective thoughts (Faryadi, 2007).

2.3 Behaviorist Perspectives on Students with EBD

Managing students' behavior is the prevailing aim of the teaching approach in behaviorist classrooms (Wehby, Lane & Falk, 2003). Because students with EBD often disturb the class, behaviorists suggest that setting rules or limitations for them is a useful approach (Lukowiak, 2010). Rules can help students with EBD learn what not to do, such as not disturbing others. This can help maintain the general order of the classroom and ensure general teaching activities can be conducted. It also can shape appropriate behavior including the completion of assignments on time and maintaining order during class time (Scheuerman & Hall, 2008).

Another useful approach, based on reinforcement theory, to promote positive behaviors of students with EBD is to use a token economy, which provides students tokens or points when they exhibit appropriate behaviors (Cook, Landrum, Tankersley & Kauffman, 2003). Then students can exchange tokens for reinforcers, such as desired activities or objects. For instance, if a teacher asks a student with EBD to remember mathematical concepts, when students memorize these concepts, they will be rewarded with two flowers. After collecting five flowers, they can have access to a toy that they like. During this process, it is necessary for teachers to encourage students to keep accumulating tokens in the process of acquiring the target behaviors. This method not only educates students to respond appropriately, but also helps them to persevere and monitor their own behaviors (Lukowiak, 2010).

Behaviorism focuses on modifying inappropriate behavior of students with EBD and helping them to study better. Behaviorist theory implies that teachers need to understand what reinforcers are effective and

have patience with students with EBD (Lukowiak, 2010). Some methods, including examples noted above, have been found to be effective in reducing disruptive and aggressive behavior and promoting positive social behaviors of students with EBD (Cook, Landrum, Tankersley & Kauffman, 2003). However, since behaviorism only focuses on external behavior problems of students with EBD and ignores their emotions, many researchers believe that it does not enable these students to learn more advanced techniques, such as critical thinking (Wilson, 2012).

2.4 Relating Behaviorist Learning Theory to My Own Experience

When I look back on my academic experience, I have to acknowledge that behaviorist teaching methods are widely used in education. For many teachers, reinforcement and punishment are common way to help students learn appropriate behaviors or achieve high scores in tests. When I was in primary school, I liked to chat with my desk-mate during class time, so could not concentrate fully on the teacher. My headteacher noticed that situation and she found that I particularly wanted recognition from my classmates or teachers. Once, in the classroom, she praised me in front of the whole class for being a good student who abides by the rules of the class and an example to other students when I did not speak. As a result, I began to pay attention to my inappropriate behavior of talking in class, and eventually learned to keep quiet in class time under the repeated encouragement and reinforcement of the teacher.

However, behaviorism does not always promote academic performance in school because it ignores student's inner feelings or thoughts (Faryadi, 2007). For example, I always got the lowest grades in maths when I was in high school, so my maths teacher punished me by making me stand in the corner. This did not improve my maths scores but made me hate my maths teacher and this subject even more. When I reflect on this, I don't think the maths teacher realized how embarrassed I was by his punishments,

3. Exploring Constructivist Perspectives on Learning

3.1 Overview of Constructivist Learning Theory

Constructivism is another prominent educational theory that has roots in psychology which is different from behaviorism. Doolittle and Camp (1999) state that constructivism has three main branches: cognitive constructivism, social constructivism and radical constructivism. Cognitive constructivists believe that knowledge is the result of internalization and reconstruction of the external world, and this process is learning. Radical constructivists believe that the acquisition of knowledge is a process in which learners actively adapt cognitions based on experience rather than external reality. Social constructivists assert that knowledge results from social interactions in particular socio-cultural contexts. However, they share a similar core idea that learners construct their own knowledge and that knowing is an adaptive process (Boghossian, 2006). It implies that the learner is not considered to be a passive respondent to stimuli (as in behaviorism), but as an active participant in learning, with personal thoughts, feelings and experience viewed as important. This implies that knowledge cannot be transferred or imposed intact from one person's mind to another (Karagiorgi & Symeou, 2005).

Constructivists have argued that the interaction between students and the environment can promote learning and that the learning context is particularly important to learners (Schunk, 2014). For example, social interaction promotes the development of socially relevant abilities and knowledge, as well as provides a method for addressing problems that may require individual adaptation. In the constructivist classroom, the interaction between teachers and students is considered to be more important than in behaviorism. The role of the teacher in the learning process is compared to scaffolding, which means that teachers guide students' learning and development step by step until they can complete tasks independently (Stone, 1998). Constructivism maintains that the learning environment should relate to students' own experiences so that they can resolve their problems in real life, that is, learning is considered situated (Doolittle & Camp, 1999). In situated learning, learning happens in an authentic context, and teachers encourage students to explore and analyze problems to promote their motivation towards learning.

It is important to understand that learning is considered to be an active and meaningful process within constructivism. Correspondingly, learning is not only about the individual constructing knowledge based

on personal experience, but also about interaction with the external world. It is dedicated to providing suitable learning contexts for students to help them solve problems related to real-life and promote their academic performance. It is different from the primary aim of behaviourism which controls the classroom in order to shape behaviors (Wilson, 2012). The following sections introduce key assumptions of constructivism and its applications to students with EBD.

3.2 Key Assumptions and Implications of Constructivism for Learning

3.2.1 What is "learning", how does "learning" occur and how "learning" might be encouraged?

One of the core assumptions of constructivist theories is that knowledge is not imposed from the outside but formed from the inside (Schunk, 2014). In this view, learning is an active and constructive process in which the learner creates meaning from experience and builds an internal representation of knowledge (Bednar, Cunningham, Duffy & Perry, 1992). It agrees with the existence of the real world but holds the view that reality restricts the understanding of knowledge, in that knowledge of the world comes from individuals' interpretations of their experiences. For example, each person has a different commentary on the same book because of their different experiences. Learning occurs when learners interact with external contexts and link new information to previous knowledge that they already have (Dundar, 2018). Thus, it suggests that learning is situated in a familiar context that reflects the authentic world to encourage this constructive process to occur. By way of illustration, in a constructivist class of recognizing traffic signs, teachers reconstruct the classroom to depict roads and road signs in which students can experience and link it with real traffic rules. Then field trips can be organized within a school to help them get more familiar with the knowledge. Accordingly, the class needs plentiful preparation to work but it can increase the enthusiasm of students to participate in learning (Doolittle & Camp, 1999). For constructivists, both learner and environmental factors are essential, because the interaction between these two variables can create knowledge (Ertmer & Newby, 2013). They maintain that behaviour change depends on the situation. Just as in the learning of new words, it is easier to remember different meanings in multiple sentences than by simply reciting the various meanings of them. Similarly, meaningful study materials encourage learners to remember more information to promote learning. Since knowledge is created by individuals, learning is also encouraged by personal experience. When the learning task is relevant to students' lived experience, they prefer to complete it (Yilmaz, 2011). Learning arithmetic is boring for students, but combining it with life will help them to learn actively. For example, some teachers ask children to record the amount of fruit they eat every day, then share it with classmates. In this way, students not only make sense of addition, but also know how to compare quantities.

3.2.2 How do learners experience learning?

According to constructivist theory, the learner is an active role in learning to link new knowledge with information that they have already acquired (Dundar, 2018). Active learning is a critical facet of the constructivist approach to instruction. When students engage in the lesson actively, they are more likely to learn and retain the information (Steele, 2005). Many experimental lessons, manual classes and language classes incorporate a high level of student engagement. For example, students are encouraged to have conversations with classmates to practice oral expression in a foreign language class. This interaction can help enhance their interest in language usage and learning. Experiments with animals and plants can also promote students' motivation towards science. Students usually learn primary sources under the guidance of teachers, then develop their own deeper understanding of knowledge, and this active process makes learning more meaningful. What is more, all learning begins with personal previous knowledge, thus, educational content should relate to learner's prior experience (Doolittle & Camp, 1999). When different levels of knowledge are interconnected and progressive this helps students absorb new information better. Teachers in the constructivist classroom need to preview related ideas that are already known by students before introducing new concepts (Steele, 2005). For example, in a class introducing animals, the teacher can ask students to recall their pets and share with others, so as to familiarize students with the content of this class. Students are viewed as active learners in authentic and

related contexts.

3.3 Constructivism Perspective on Students with EBD

While it is widely recognized that students with EBD have severe social skill and behavioral deficits, there is evidence that these students also have significant academic deficiencies. However, the majority of instruction of students with EBD have primarily focused on behavior modification and ignored the academic and social performance of those students (Ryan, Pierce & Mooney, 2008). The teaching approach of constructivism places more emphasis on addressing these deficits of students with EBD to increase their engagement in school and improve academic performance in school. It suggests that "classroom instructional practice will be student-centered, interactive or experiential" (Wilson, 2012, p. 890). When students have more control over learning they develop higher levels of mental, emotional and social involvement which also reduces their negative behaviors. An example of how student-centered instructional techniques from constructivism can be used to support the academic success of students with EBD is the Reader-Writers Workshop. This workshop model is a mini-lesson which aims to teach students strategies for reading and comprehension that allow teachers to distinguish and meet the needs of all learners (Rasmusen, 2017). It creates an open space for students to choose various activities they want such as reading, sharing books they have read and writing. While students work independently, teachers move around the classroom to communicate with them and provide feedback as much as possible. At the end of each workshop, teachers will sometimes provide further instruction individually. Wilson (2012) argues that, since students with EBD experience more tension and frustration in learning, this teaching approach offers them multiple choices in learning to motivate them to engage in learning actively as well as to reduce their anxiety. When these students make their own decisions about what to study, they show high levels of willpower in the face of setbacks. However, many researchers argue that such classes are difficult to manage due to the emphasis on high learner participation, thus, they tend to limit the number of students and require teachers to be able to understand and mentor each student (Alanazi, 2016).

According to Stone (1998), the "scaffolding" approach, based on constructivism, has been broadly and effectively applied in teaching students with EBD in order to promote their academic performances and social skills. The term "scaffolding" describes the kind of support that learners receive in their interaction with mentors as they develop new concepts or understandings (Maybin, Mercer & Stierer, 1992). Simply put, scaffolding is what teachers do together with students. This can be seen in a reading lesson: Teachers explain some key and difficult words in the passage as well as analyze some complicated sentences before students read the whole passage independently. During this process, the teacher is also an active participant and is required to interact with students with EBD patiently and provide them supports by scaffolding until they can learn on their own (Stone, 1998). In addition, peers and parents also can use scaffolding for learners with EBD, not only helping them develop social and learning skills through interaction, but also training them to learn by connecting new knowledge to past experiences (Steele, 2005).

3.4 Relating Constructivist Learning Theory to My Own Experience

Teachers following the constructivist perspective view learning as meaningful and based on what students already know (Boghossian, 2006). When I studied physics principles in high school, I remember that the teacher always tried to guide us do experiments and show us some videos, or combine it with our real-life experiences to help us understand the concepts deeply, instead of asking us to memorize them by rote. The physics teacher also provided opportunities for us to discuss and share our own understanding and confusions about knowledge. This approach motivated me to study as well as helping me to get involved in the lesson and interact with teachers and classmates. One major drawback of this approach is that there were more than fifty students in the classroom, so the teacher could not take care of everyone. In group discussions, there were always students who were more active and intelligent than me and they always answered the teacher's questions in advance. I felt depressed that this activity was led by a few, and the teacher seldom paid attention to me in class (Alanazi, 2016). Some students had also complained that they could not

build connections between old and new knowledge to keep up with the level of studies because of their poor academic foundations.

4. Similarities and Differences between Behaviourism and Constructivism

As two learning theories that have a profound influence on contemporary education, constructivism and behaviourism have many similarities and differences in issues related to learning. Firstly, they both attempt to explain how students learn and acquire knowledge as learning theories (Modritscher, 2006), despite some disagreements. Behaviourists assert that learning is a process in which the connections are brought out by stimulus-response relationships, and the knowledge is acquired when these connections are strengthened (Scheurman, 1998). Students are passive learners and their behaviors can be changed by both positive and negative consequences. Thus, behaviourism leads to a teacher-centered classroom that provides some tests and information to learners, then asks them to repeat what they have been taught by teachers, in order to measure learning and knowledge by assessing correct answers (Dundar, 2018). In contrast, constructivist argues that learning is an interpretive and constructive process by active learners through interrelating with the external world, and knowledge is created by learners from their own experiences. Constructivism involves developing a student-centered classroom through experimentation and cooperative learning such as situated learning, discovery learning and inquiry learning in which students start to learn on their own through engaging actively in concepts and principles (Schunk, 2012). Secondly, Ertmer and Newby (2013) found that the two theories share the same view that the teacher is an important role in learning, although behaviourism and constructivism have different interpretations towards learning. Behaviourism implies that the teacher arranges environmental conditions so that students can show the correct responses in the presence of those target stimuli and receive reinforcement for those responses. In constructivism, even though the priority is on learner construction, the role of the teacher is still essential. The teacher instructs students on how to construct meaning and evaluate this process effectively, as well as design the authentic, relevant learning contexts for students. Thus, teachers have different tasks in the teaching process, but they are indispensable in both approaches.

Lastly, they both acknowledge that the environment is very important in learning. Behaviourism believes that environment includes many stimuli to stimulate learner's reactions, while constructivism also contends that students construct knowledge by interacting with some elements in the environment to some extent (Faryadi, 2007; Richardson, 1996).

When the two learning theories are applied to educational practice, they have different implications for teaching strategies and aims, and this can be seen in teaching students with EBD. Although they both contribute to helping students, the main aim of behaviorist approach is modifying the abnormal behaviors of students with EBD to help them adapt to normal classrooms, which contrasts with that of constructivists who argue that the academic performance of these students is more important (Bednar, Cunningham, Duffy & Perry, 1992). Behaviorist reward and punishment mechanisms based on reinforcement theory can effectively and simply change these students' observable inappropriate behaviors. However, on the academic side, behaviorism stresses lower-level thinking and memorization skills, because the emphasis of instruction is on specific information rather than whole concepts (Wilson, 2012). Thus, it fails to provide opportunities for students with EBD to learn the same depth of content as their non-EBD peers.

Constructivism does not focus on deficiencies of these students, but promotes their social skills through authentic classroom learning and enables them to actively participate in class to build knowledge, as well as develop their abilities in cooperative learning, critical thinking and problem solving (Dundar, 2018). However, it is undeniable that compared with the behaviorist approach, constructivism requires teachers who are well trained to be able to invest more time and energy to design integrated curricula. Constructivism attaches great importance to students' own experience, so the classroom sometimes fails to take into account every student and help them build connections between old and new knowledge (Wilson, 2012). Therefore, there is no single best approach or one approach more efficient than others in teaching and learning, and the same is true for students with EBD (Ertmer & Newby, 2013).

5. Conclusion

Behaviourism and constructivism have been discussed with regard to learning issues and implications for students with EBD. The analysis has mainly focused on what learning is and how learning is affected, and how to apply each approach in practice, taking students with EBD as an example of learning communities. Finally, some similarities and differences between the two learning theories are summarized through these descriptions and analyses. Although these two learning theories have exerted a great influence on education up to now, they also lead to different educational practices due to their different understandings of learning and learners. Students with EBD are challenging to teach successfully because of their behavioral, emotional and academic deficits. However, if teachers can deeply understand the needs of these students and different educational instructions, these students will have opportunities to succeed in terms of learning and social interactions. As explained earlier, it is clear that behaviorist learning theory is more effective in changing inappropriate behaviors of students with EBD, while constructivist learning theory is more focused on imparting learning skills and improving the academic performance of these students.

Steele (2005) has argued that the best teaching method often incorporates the principles of constructivism and behaviorism. Learning is a complex and dynamic process that can be influenced by multiple factors from many sources. Ertmer and Newby (2013) maintain that educators should not advocate one theory over the other in teaching, but emphasize instead the usefulness of each. Instructional decisions should be made dependent on learners' characteristics, the specific task and the content rather than teaching from one theoretical approach (Weegar & Pacis, 2012).

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Conflict of Interest

There is no conflict of interest.