



Examination of Special Education with Constructivism: A Theoretical and Review Study

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Abstract: While we argue that difference and diversity are essential elements of the education process, we keep one area an utterly separate area: Special education. This area is left as a mysterious closed box with many undiscovered differences. While it is clear that there is behavioral pressure on special education, there are also opinions that claim the opposite. However, it is noteworthy that the views are not reflected in the implementation process. The fact that theory and practice are progressing in different lanes should attract the attention of educators. This study sought evidence for the idea that "a constructivist approach for special education offers a suitable learning environment." This study may be a step to stop defining everything we cannot discover as the other. The problem was discussed by blending it with pro and opposing views. Considering that the study contains a deep synthesis of thoughts, it will also trigger new deep discussions.

Keywords: *Special education; Constructivism; Learning theory; Social constructivism*

Introduction

The main focus in the learning process is the student's existing knowledge and how it constructs knowledge (Penner, 2000). To better understand education, it may be helpful to focus on the question, "How do we understand and evaluate information?" (Matthews, 2003). There are still misconceptions and different attitudes about how knowledge is structured, how the learning process can be realized more effectively, and current teaching systems. Theories help us, but they do not always overcome our prejudices. Theories are statements, principles, or ideas about a particular subject (Picciano, 2021). Theories provide us with the knowledge and logic to understand the theoretical structure underlying an action. We make sense of the steps that take place with the conceptual frameworks offered by the theories and explain and transfer them to others. In this framework, learning theories are explanations and belief systems about the world and people on how the individual learns and develops. It guides what learning is, why and how it occurs, with variables and relationships, and how to intervene in learning. Gibbons and Bunderson's (2005, p. 13) three-focus search for theories can guide us in this process (1) Explore: Define and classify what it is. (2) Explain: Explain causality with variables and relationships. (3) Design: Define interventions to achieve the goal. In summary, focusing on the diversity of theories asks, "What is the theory trying to explain to us?" before pursuing popularity or a classic. We need to understand the question. There is an intense debate in the literature about which of the many theories is more effective or valid. But more important than proving that any approach is the best, most accurate, or most applicable is examining and discussing any theory in context. Elements such as important rules, frameworks, concepts, and algorithms about how to approach the education and training process that takes place in the classroom or outside the classroom in general, and in particular, are provided to us by learning theories. Arguments, premises, concepts, and categories in

ideas are necessary for researchers' mutual understanding to have common scientific discourses about learning (Krause, 2021). We need theories that make the "learning" process more understandable. Only in this way can we discuss our thoughts as educators and scientists on a common basis. Otherwise, we may get lost in inconsistent discourses, unrealized ideas, and blurred views of the learning process.

Evidence of how children learn through ideas and practices finds its way into a broad socio-cultural context. Theories should explain learning, cover all learners, and not exclude non-majority constructs. Old paradigms of assuming that some children are uneducated, unable to benefit from education, or merely educable are evident from the outset, considering that even young children with multiple disabilities can participate in their own learning if given adequate educational and social support (Mallory & New, 1994). In different countries, there are other laws and movements (*for example, the No Child Left behind Law, Every Student Succeeds Act and Equal Opportunity in Education*) that focus on the uniqueness of the student, the student's right to education, and the support of the student under all circumstances. But do the processes and policies in the classroom show parallelism with each other? Instead of answering "yes" or "no" to this question, it would be more accurate to explain the potential of constructivism to guide the instructional arrangements that could be the answer to these laws. The constructivist approach, which focuses on the vital importance of elements such as vitality, change, continuity, and interaction, offers an ideal way of thinking for both general and special education. If education; if it wants to change people to create a sustainable future that counts for the better; that is, if it wants to transform man to establish a superhuman and a promising future for man; it has to constantly change and transform itself depending on the universal and social realities and the spirit of the time (Erdem, 2019, p.94-95).

In this study, "constructivism," a prevalent theory under intense pressure as both pro and opposing views, will be examined in the context of special education. Please consider the concepts of "difference" or "diversity" as you read this work. What do these concepts mean to you? How does our education system define children who are different? In the literature, we can find many opinions that the answer to this question should be yes. It is important to refer to all school-age children, not just those who need special education (Kiuppis, 2014). However, "valuing diversity" is almost a cliché in the inclusive education literature and is claimed to be an increasingly empty term (Benjamin, 2002, p.310).

Constructivist Paradigm

How does human think? How does human learn? Following Jean Piaget, thinking can be thought of as the process of maintaining a balance (*a balance between experience and what is known just before experience*) within the organism (Gash, 1992). The fundamental dynamics of life are about the differentiation of the human organism due to its interaction environment and dynamics (Erdem, 2019, p.94). The general consensus among educators is that what an individual knows is not a function of independent observation, it is created through interaction with their worldview, and knowledge and reality are subjective in nature (Akban & Beard, 2016). Constructivism is a model or metaphor for how people learn (Cobern, 1995). According to the constructivist understanding of learning, with a very general

definition, learning is the process of creating subjective meaning based on social interaction (Erdem, 2019, p.96). In constructivism, there are explanations about what knowledge and reality are. Constructivism focuses on the construction of knowledge, that is, while the learning process takes place and what the procedures mean for students and teachers (Akban & Beard, 2016). Constructivism discusses not a metaphysical reality but a perception of reality about one's own living world (Erdem, 2019, p.89). Learning is an individual matter, and the learner relies only on her/his own resources to explore the world (Chiari & Nuzzo, 1996). According to Ingold (2017, p. 20), students "want to know what it means to live, in what sense they have a past and a future, and an idea of their own direction. In this process of knowing, the primary source is the individual himself.

According to the constructivist approach, knowledge is actively created by the individual and fed from the individual. The concept of knowledge has changed with a constructivist understanding from static transmitted content to knowledge that can be renewed and often interpreted by other learners. The act of knowing explains the individual's effort to be in harmony with the world he experiences (Mayer, 1999). Knowledge is created within a social structure, with continuity, sharing, and participation (Niemi, 2009). During all this act of knowing, the individual learns through creating meaning from the outside world, together with the information and other interactive elements he interacts with. In this theory, where the emphasis is on the individual's subjectivity, individuals construct their own meanings (Niemi, 2009). In the constructivist approach, in which it is argued that the opposite is not possible, it is precious for the individual to create their own meaning instead of the meaning suppressed in the individual (Karagiorgi & Symeou, 2005). Focusing on the fact that every student must construct meaning from the world and that we are strongly influenced by social interaction will help us better understand this approach. Because, learning is the process of creating meaning. The knowledge we gain from others now bears traces of our interactions and thus becomes a meaningful interpretation of our actual experiences.

The constructivist approach is a philosophy of the subject and is concerned with how people make their own world, perceptions, interpretations, activities, and actions (Erdem, 2019, p.89). The construction of knowledge is a never-ending structure. This process of formation, which is constantly changing, allows the student to rethink their own meaning-making approach. This is precise what learning itself is. Information cannot be transferred from one to another like a commodity.

How a variable and living structure is constructed and subjectively interpreted by each individual should be accepted. The view expressed by Glasersfeld (1989) that "single learning depends only on the knowledge, experience, and conceptualizations of the individual" reveal the critical role of the individual in the processes of knowledge, knowing, and learning. In other words, students do not copy what they know from their environment; on the contrary, they acquire it from their own thinking, reflection, and processing (Steele, 2005). A new experience is internalized through previous knowledge structures in the individual (Crowther, 1997, p.3). Individuals construct their subjective meanings through the interaction of everything they are in contact with and existing experiences, and the learning process remains alive as a social activity that leads students to question and teachers to be explorers and guides (Ültanır, 2012).

The teacher examines understandings, evaluates, guides learn with the student, and does not define himself entirely apart from the student. It enables students to think out of the ordinary by establishing their own connections that result in valid internalized meanings specific to them (Akban & Beard, 2016). It guides students with exploratory activities to become aware of their own environment, be curious about it, and examine it (Martin, 2012). Teaching is also a supporting area that will guide and accelerate the learning process and provide thinking models (Erdem, 2019, p.101), and the role of the teacher in the supportive area is excellent. The constructivist understanding of learning, which approaches learning as a biological, mental, and social, that is, a holistic phenomenon, differs from the behavioral and cognitive performances of learning. (Erdem, 2019, p.97). The constructivist approach is an understanding that encourages learning through experience in an environment that includes the natural world and presents meaningful and personally enjoyable challenges (Akpan & Beard, 2016). Since any information is not expected to reflect the truth in the constructivist approach, each report is unique and valuable. Discussion, questioning, and critical thinking should be included in the learning process due to different information. Knowledge is enlivened by sociability, so pedagogical approaches must encourage student-student interaction and cooperation. Learning is based on student activity. And constructivism tries to explain how the student's training is and how learning occurs, with concepts such as subjectivity, interaction, and meaning-making. The approach focuses on the active construction of knowledge by individuals, and therefore there is no harm in defining it as student-centered. In addition, this activity includes ownership. The term participatory right is used to describe the process by which a student gains a new understanding of her/his role as a member of a social group and begins to behave differently as a result of this new understanding, and considers thinking, re-presenting, remembering, and planning as active and subjective processes (Rogoff, 1994). This dynamic view of cognition shows us that individuals interact beyond learning something new or acquiring a more functional skill. We assume new roles, appropriate group values, and behaviors for ourselves and become part of a fluent, open-ended learning process (Mallory & New, 1994). Teaching from the constructivist continuum reaches a broader range of students and increases understanding and self-confidence in all students, teaching students to think for themselves, ask questions and seek answers (Akpan & Beard, 2016).

Constructivism in contemporary educational contexts describes student-centered, process-oriented, flexible structured, and highly interactive instructional learning as an active knowledge process (Johnson, 2004). Students absorb new information into pre-existing mental structures and change their personal interpretations in the light of new knowledge and experiences (Jonassen et al., 1995). To understand the real world, we need to see real-world problems and the experiences and problem-solving approaches of other individuals living in that real world. Students actively pose issues, discuss, share or implement problem-solving thanks to constructivism. In other words, with the constructivist approach, fundamental needs are addressed, and the natural world becomes understandable. Educators and policymakers need to understand that the real world cannot be understood through a simple knowledge transfer process. The learning process should include interaction, communication, dialogue, and exploration. Also, learning is not limited to the four-walled classroom. It should be realized that knowledge is not static and is a living structure.

Methods

Design

This theoretical study, which examines how learning theories are handled in special education processes and includes discussions and suggestions for this, has been planned within the framework of systematic review. Systematic review studies provide a rigorous and well-defined form of the literature on a defined subject area (Cronin et al., 2008). The following search terms were used while searching: Behaviorism, Behaviorist, Constructivism, Constructivist, Learning theory, Special Education. Two researchers independently reviewed studies selected for access for methodological validity before inclusion in the review. Any disagreements that arose between researchers were resolved through discussion. Two researchers extracted data from the studies included in the review using the detailed analysis table they prepared. The researchers' data included relevant or conflicting results on interventions, populations, study methods, and study purpose.

Data Collection and Analysis

In the research, articles, theses, reports, and papers whose full texts were reached were determined as data sources. In the data collection process in the research; (1) Defining the Problem, (2) Searching for Information, (3) Evaluating the Quality of Evidence and Analysis, (4) Presenting and Summarizing the Evidence, (5) Discussing the Evidence, and (6) Presenting the Systematic Review. A gradual path has been followed (Gerrish & Lacey, 2010; Hemingway & Brereton, 2009). At the stage of defining the problem, "the use of the behavioral approach in special education interventions involves doubt" was determined as a problem by the researchers. In the Searching for Information phase, a scientific study search was conducted from the perspective of learning theories for special education. At the stage of evaluating the quality of evidence and analysis, the full text of 149 studies that support the claim of "suitability of the constructivist approach to special education" and contain opposing views were reached. Twenty-one of these studies were excluded because they did not contain sufficient evidence. At the stage of presenting and summarizing the evidence, the claims of the same and different opinions were summarized in relation. During the discussion of the evidence, a process was completed in which all the information obtained was discussed, and new questions and answers were produced. During the submission of the systematic review, the evidence obtained was reported by scientific research principles.

Results

Special Education Students: Special, Equal, Separate or Different?

Schools are a part of society, even a reflection of it. In fact, classes are the microcosm of society and represent the degree to which knowledge and the individual are valued (Ferri & Cornor, 2006, p.127). The school represents a necessary and effective formation for the dissemination of the norm values of society. Schools must not be perceived only as physical spaces because there are constant interactions between individuals in a classroom. These interactions structure a large part of a child's life. Schools describe an area where large groups assumed to be homogeneously

segregated learn the same content through the same channels, with the same curriculum and approach. Since it is essential to be in a homogeneous group in some cultures, anything and everyone contrary to the established norms are labeled and separated (Manning, 2011). Since schools represent the dominant culture, this idea of separation is adopted by all students. Every student punished, expelled, or rewarded is stripped of the homogeneity structure for a moment or a long time. Schools are an ideal space where differences have a chance to coexist. However, the general belief is that heterogeneity should be eliminated and homogeneous groups should be kept in the same/similar environments as much as possible. This is similar to interfering with natural life and putting the same species in the same or closed cages in zoos. Therefore, the school contains arrangements in which similar ones are kept in close/same areas, and the differences of the different ones are intervened to the degree known to everyone. So why does difference occur, and why can't we embrace difference? Equality and differences in quality of life depend on different areas where human diversity is prevalent. Sen (1999) explained these in five themes.

- Personal characteristics such as the difference between people, structure, deterioration, health, gender, and age,
- Environmental variations such as climate, pollution, and contagious regions (malaria, cholera, AIDS),
- Differences in the social environment (the ways in which people have the opportunity to transform their wealth into the preservation or improvement of their quality of life, public education arrangements, development of infrastructures such as public health, and social conditions such as the prevalence or absence of crime)
- Differences in relational perspectives (depending on the cultural code of a particular community)
- Differences within the family (such as having different expectations according to gender)

If you do not serve the homogeneous structure for whatever reason, you may have to be pointed at. When a student who is defined differently is removed from the class, both that student and their friends become aware of this situation, and the status of this different student in the society changes forever (Ferri & Cornor, 2006, p.127). However, does any person, institution, organization, or group have the right to tag a child? As educators, we may hesitate about how to react to behaviors we rarely encounter. Nevertheless, this does not give us the right to label, exclude or discriminate against the child. It should be known that tagging these children will not work either. Knowing and noticing them, knowing, feeling, and making them feel that they are separate and special like every child should be our first duty.

Although many definitions of special education have been made, some are remarkable. For example, special education is defined as "a bureaucratic tool to deal with the effects and results of conflicts between students with disabilities (!) and students who are the target of a limited curriculum" (Slee, 1997, p.413), considers every point outside the standard problematic. It is meaningless for concepts such as standardized content and evaluation to be in a field where differences are respected. In fact, special education explains providing extra and different approaches that try to meet the atypical needs of the students it identifies as the target audience. The effort to keep it separate from general education is constantly felt. Higher-level resources are allocated to these students, teaching techniques not often used

with "normal" students, and labels are applied to indicate the students served (Cook & Schirmer, 2003). Since students with special education needs cannot be defined, there is no clear view on which aspects should be differentiated in educational environments. The antecedents that form the basis of special education are listed as follows by Hockenbury, Hallahan, and Kauffman (2000):

- Individualized teaching,
- A series of carefully ordered tasks,
- Emphasizing the stimulation and awakening of the child's senses,
- Meticulous arrangement of the child's environment,
- The instant reward for correct performance,
- Teaching functional skills
- Believe that every child should be educated at the highest possible level.

Why do these items need to be separated from general education? Isn't every item also necessary for the individual in public education? Perhaps the honest criticism of the system begins with our inability to fully define special education... There will always be individuals in the world who need more or different support in their learning journey than their peers, either physically, cognitively, emotionally, or with still undefined characteristics/differences. Special education can be thought of as a structure that gathers all individuals who need additional or more support than the majority under one umbrella. Within this umbrella structure, curriculum, support education services, personnel, etc., for individuals in need of special education. All items are included. It refers to the whole of the services provided so that students with individual characteristics different from the average or other behaviors of a particular age group can continue their lives independently or at least dependently (the need for the support of a different person). Special education expresses an adaptive approach to other conditions or different abilities and addresses every student who cannot adapt to the standard education system (Florian, 2008). The learning abilities of the individuals in the target special education group differ from the determined norm values in such a way that they are above or below the level that requires a special approach. These students need different methods, support, and environment. And it is known that these needs should be met within the education regulations (Lamsa et al., 2018). However, students who need special education must be supported by teachers, family, auxiliary staff, peers, and society and not be segregated.

Is the teacher who participates in the learning processes of the students in need of special education different from the teacher who participates in the general education processes? Does it need to be differentiated? Why or in what way does it differ? An even more critical question is, "How equipped are all teachers, including general educators, to manage classrooms that represent a broad range of academic, behavioral, and functional needs?" (Anderson et al., 2010). Special education requires special teaching strategies to facilitate the learning and skill acquisition of individuals with learning disabilities, communication, behavior, development, or other problems (Cifuentes et al., 2016). It has been stated that for students with special educational needs and who have a highly heterogeneous population, knowledge and skills, expertise, and unwavering commitment are required in assessment, planning,

collaboration, and effective interventions (Brigham et al., 2011). Managing challenging student behaviors, whether academic or social/emotional, is one of the biggest concerns of teachers (McKinney et al., 2005). Common and troublesome situations that special education teachers encounter in the classroom include "attention problems, off-task behaviors, difficulty in completing the task, disruption, lack of organizational skills, verbal and physical outbursts, passive and aggressive behaviors, and poor social and interpersonal skills" (McConnell et al. et al., 1998). Do teachers in the general education process encounter such situations? In addition, special and general education teachers know the resources they use, the differences in the quantity-quality of education, and the tension arising from these differences (Cavendish et al., 2020). Inevitably, the difference in their perceptions, attitudes, and prejudices towards the audience they train will affect every aspect of the learning process and its stakeholders. The literature on the teaching theory, method, or technique used or suppressed in special education is influenced by the behaviorist approach. However, it is hopeful that there are other initiatives as well. After all, even in education, many practices that do not follow or ignore current theories are still alive.

Behavioral Pressure on Special Education

The behaviorist approach pioneered by the ecologist Ivan Pavlov, who is often mentioned for his famous experiments on the inseparable connection of dog-food-bell, has often been criticized and has put forward many widely accepted claims. Different researchers repeated his experiments, and the same results made behaviorism famous. In the behaviorist approach, the mind and consciousness are not crucial in learning and teaching processes, and everything could be explained by the stimulus-response relationship. Behaviorism reflects a positivist worldview that focuses on how people behave (right or wrong). In this approach, the emphasis is on observable behaviors. If something is visible, it can be evaluated, measured, and controlled (Picciano, 2021). Although behaviorism is criticized for general education, it is an approach that is defended as a practical approach to special education practices. Evidence supporting the claim that "behaviorism works in special education" is evident in many teaching methods that are effective in improving learning outcomes for "special" students (Anderson et al., 2010). Because the special education structure is standard and does not accept going beyond the standard. It is suggested that this approach should not be seen as an opportunity to punish or suppress students' reactions but as a teaching opportunity (Anderson et al., 2010). However, the use of the behavioral approach is quite limited, and its effectiveness in the permanence of behaviors is always uncertain.

"Behavioral analysis," frequently preferred in special education applications, offers a critical structure that is wholly based on the principles of the behaviorist approach. Behavioral modification efforts using behavioral analysis have yielded positive results. With the behaviorist approach, the child brushed his teeth with determined steps, washed his hands with determined steps, and drank water with determined steps. In behavior analysis, the following steps are performed respectively: (1) Analysis of the problematic-wrong-deficient behavior, (2) Function of the determined behavior, (3) Determination of the changing behavior, (4) Teaching and supporting the new behavior, (5) Generalization and maintenance of the behavior and the final (6) It is the monitoring of behavior progress (Anderson et al., 2010). A set task is broken down into smaller manageable chunks and simplified. As the subtasks are completed

correctly/sufficiently by the student, respectively, reinforcement is given by the adult. Behavioral theory focuses on providing clear and direct instructions and includes giving rewards or punishments according to the fulfillment of the instructions (correct or incomplete/false/unresponsive). Although it is thought that behaviorism is not suitable for special education, Cihak et al. (2016) stated that instead of looking at the negative aspects of the approach, it is essential to consider the positive side of the behaviorist theory so that it can be used to improve the learning experiences of students with intellectual disabilities. The point of view of those who distinguish children from each other and describe them as "unlearnable" and "hard learners" should be avoided. A new paradigm is needed that embraces our more sophisticated understanding of the ecological context and the interactional dimensions of the lives of children with special needs and offers a coherent view of the nature and nurturing of all children's learning (Mallory & New, 1994). In addition, as children experience problems or deficiencies that affect them from different aspects of the learning process, the need for services to meet their needs generally expands (Bricker et al., 2022), and behaviorism falls short at this point. At one level, the evolution of flawed thinking in special education stemmed from beliefs that although some individuals function in ways that are considered "subnormal," they are still human and deserve to be educated (Trent et al., 1998). To what extent can the constructivist understanding find a solution to the deficiencies in special education?

Constructivism and Special Education

We think that we have made more visible the stance of the behaviorist approach to constructivism. While not asking which one is correct, we would like to present you with a controversial finding. Interestingly, studies in the literature suggest integrating behaviorist and constructivist approaches. In the study, it is said that integrating constructivism and behaviorism affects the learning experience due to its holistic nature, and teachers can completely eliminate the deficiencies in cognitive functionality and adaptive features (Algahtani, 2017). However, this recommendation is still recommended for students with intellectual disabilities. Combining two fundamentally different theories, it is suggested that individuals with academic competence should be given information on money management, time management, independent living, hygiene and personal care, recreational activities, community participation, and vocational training. Is it possible to implement? Good suggestions are made to explain students' knowledge construction and address the problems in this process. However, it seems that the proposals other than constructivism do not meet the needs of all students and do not go deep enough to help them construct knowledge in depth (Akpan & Beard, 2016). What is the inclusiveness of the constructivist approach to "special" students? When the values of constructivism are examined, it is seen that this approach covers every student, but it should not be forgotten that special education does not treat every process hospitably. Let's situate our thinking far from behaviorism: difference in an ability perspective is neither a deviation from a common standard, as in the medical model, nor is it simply something to celebrate, as in postmodern views of the social model; it is only a particular variable that has an objective reality (Terzi, 2005). Due to the understanding that special education is in a very different place from this understanding and that it has many supporters around it, one cannot go one step further. This misunderstanding blurs the ontological reality of a phenomenon, and this indecision has ethical consequences (Reindal, 2010). When it is claimed or denied that the differences between learners are objectively 'real,' it should be asked what their effects are

(Cigman, 2007). Is it possible to apply both behavioral and constructivist? Furthermore, when answering this question, we need to answer based on a behaviorist, constructivist, or a different theory. In terms of epistemology, one is either a positivist or an anti-positivist; it cannot be both. Moreover, the metaphysical denial of the reality of differences shifts to the denial of the existence of difficulties, a denial that brings ethical implications (Cigman 2007). When we look at the examples in the world, it is seen that it is essential to include the constructivist approach in special education processes, and different program models are applied in this direction. When the curricula used in early childhood education are examined, constructivism is often taken as the basis. For example, the HighScope Curriculum is based on Piaget's cognitive theory, which was put forward to ensure that the children of poor areas are not deprived of their right to education. Another model that focuses on the importance of the social environment is the Reggio Emilia Model. In this model, the teacher sees himself as a "compass" and participates in the learning adventure with the students. The National Association for the Education of Young Children (NAEYC) is also an organization that adopts the constructivist approach. It is seen that they adopt a constructivist approach in intervention programs that also include parents within the scope of special education in early childhood (Karaaslan & Mahoney, 2013). Mallory and New (1994) listed three essential features of social constructivism in early childhood:

1. The socio-cultural context of learning
2. The role of social activity in learning
3. The contributions of the active learner to himself

In other words, learning is in a socio-cultural structure, so it cannot be separated from sociability, and because the learner is active, he first teaches himself. We believe that we can take a more moderate approach if we consider constructivism as an approach that invites the natural process of life to live instead of thinking of it as a checklist with rules, limits, and a list of things that should never be done. Although special education is a compulsory field, it also requires a sensitive attitude and approach. Children with special needs need more interactive and collaborative efforts than those without special educational needs (Bricker et al., 2022). Social nurturing will benefit these children, along with the practice of divided and sequenced steps. At this point, it should be noted that students and educators develop their social competence skills (Buysee et al., 2003). Education is not for the student; it is a structure that embraces the teacher and the student together. At this point, examining the empirical literature in which teaching activities based on the constructivist approach are tested can provide helpful information. Although their number is limited, some studies are based on the constructivist approach and attempt interventions in special education and report successful results. Approximately 35-40 years ago, the applicability of constructivism in special education was questioned in several studies, and some researchers encountered negative consequences. For example, Kamii and DeClark (1985) observed that social interaction in the special education classroom is an inadequate intervention, that the interaction deviates from the lesson's purpose, that students are discouraged when they cannot interact, and the interaction remains limited. Constructivism, which came to the fore again in the 2000s, became the subject of empirical studies again, and this time its effectiveness began to be tested for different special education groups. Children with learning disabilities supported their reading performance with their peers on a social constructivist basis (Özer Şanal, 2020). It provides

social and cognitive support to children with Autism Spectrum Disorder, along with social constructivism (Cotter, 2011; Guazzaroni, 2019; Jamero, 2019), and the social constructivist perspective is considered to have seminal potential in education programs for these children (Walker & Berthelsen, 2008). It has been stated that the constructivist learning approach provides positive outcomes in special education interventions for children with ADHD (Sajadi, 2015) and that peer support is a very supportive and essential factor in the learning process (DuPaul & Henningson, 1993). However, it is seen that these experimental studies are limited, and it is thought that this limitation causes a fearful approach to constructivism. While many educators explain the theory of constructivism, emphasize the need for change in educational processes, and produce constructivist teaching methodologies, they fall short in presenting information about student outcomes in both general and special education (Apps & Carter, 2006).

Collaboration becomes a supporting and necessary pillar when faced with genetic, physical, environmental, or learning-related challenges (Bricker et al., 2022). It is stated that they need to interact with their peers and special education teachers who have similar characteristics because they have difficulties in participating in interactions in regular classrooms, and they can benefit from the constructivist model (Snowman et al., 2009). The area of proximal development and teacher support play a critical role in determining what is necessary to take advantage of developmental opportunities in daily interactions (Jamero, 2019). Every child changes, and as a result of this change, they need people, environments, materials, and opportunities that can adapt to change. Teachers make these opportunities for change visible to children. Teachers facilitate this change by positively interacting with students, such as asking questions, creating appropriate challenges and experiences, and offering new ways of thinking (Watts & Pope, 1989). Special educators have recognized the importance of unique, meaningful learning contexts emphasized in constructivist principles (Apps & Carter, 2006). It is also recognized that open education to acquire skills and strategies for students with special needs may often be necessary as a prerequisite for higher-level learning (Harris & Graham, 1996). Let's not consider why the constructivist approach was wholly accepted but why it was not applied in special education classrooms. This approach, which removes every obstacle that restricts the process and advocates the necessity of a natural flow, is not preferred by special education teachers. When the implementation process is discussed, it is stated that although the teachers find the constructivist philosophy "pleasant," the views that a positivist framework has emerged and that behaviorism is the solution should be redeveloped (Reid et al., 1994). Constructivism remains a content that makes professors happy. They have done. Or, although constructivism shows our individual value, it may not be applied because it could not adapt from a teacher or curriculum-oriented perspective (Brisco, 1991). It must be easy to follow and implement a structure that gives us rules. But in this case, it is necessary to accept that we and those we interact with do not go out of the watch list and that none of us will change. When the classroom behaviors of special education teachers were examined, the dominant metaphor was "management" (Sabornie et al., 1988). Those who do not comply with the boundaries drawn by the curriculum are perceived as "out of control," and teachers have the belief that "The student must follow the rules of the teacher, the rules of the system so that he can get well" (Reid et al., 1994). Unfortunately, the acceptance and implementation of educational approaches do not correspond to the existence of conclusive and interpretable evidence supporting their effectiveness (Heward, 2003). Some constructivist teaching methodologies used (and arguably effective) in experimental research are considered

impractical or inappropriate in natural classroom settings (Apps & Carter, 2006), but more research results are needed to see the results on students. To at least gather some courage...

Discussion, Conclusion, Recommendations

In this study, in which the constructivist approach is discussed in the context of special education, the definition of special education, the dominant paradigm in special education, and the needs and requirements in special education have been critically evaluated. One of the main reasons we engage in education is to find out precisely what the individual needs and wants (Biesta, 2007). This can only be achieved by communicating with the person. A person cannot exist with measurable, observable, or pragmatically evaluable perceptions; our perceptions are shaped by others' perceptions, attitudes, and even intersubjective saliences (Larrison, 2022). In all societies, values have only recently changed to emphasize the full and unrestricted participation of individuals with special educational needs in the natural, local communities in which they live (Mallory & New, 1994). It is essential to eliminate prejudices about children, stereotypes, and children who need special education. The key to mutually appropriate cognitive change requires mutual respect, and only in this way will the differences in perspective between individuals be understood or a shared understanding can be reached (Gash, 1992). The need for a different view: The change occurred as we learned that, thanks to advanced medical and educational technologies and several sociopolitical factors, individuals with special educational needs are much more capable than previously thought (Mallory and New, 1994). The constructivist theory provides a common ground needed at this point and provides a broad conceptual platform for natural teaching processes.

There are also criticisms of constructivism. It is stated that a guided process will lead to more effective results instead of the learners being in the process of pure discovery to create their own meanings (Moreno et al., 2007). If students are in the discovery process without a guide, there is a risk that they may not be able to integrate their knowledge, and this may cause misconceptions and lower learning outcomes (Sajadi & Khan, 2011). In fact, it should not be forgotten that the misconception allows the learner to evaluate whether it is right or wrong in his next life and to provide better learning. Another criticism is that the applicability of a correct approach or method in special education in larger classes, especially in mainstreaming classes, and the external validity of the results and the applicability of the methodology are doubtful (Apps & Carter, 2006). This may be partially eliminated with more large-scale studies. Teachers' beliefs about students with special needs not being active learners and not being able to self-regulate and make sense, combined with their view of themselves as administrators, probably mediate their difficulties in applying constructivist teaching principles (Reid et al., 1994). In addition, the question of the effectiveness of constructivism for students with special needs should be investigated with quality studies (Apps & Carter, 2006). Trent, Artiles, and Englert (1998) examined the situation of social constructivism in conjunction with special education nearly two decades ago and identified four difficulties that special educators may encounter while absorbing social constructivism. The first of the problems is that special education teachers cannot overcome polarized views of what constitutes best practice and effective teaching. The second difficulty is the lack of clear definitions of each concept and constructs to increase communication between researchers and practitioners with special education teachers and

increase the generalizability of empirical findings. Another difficulty expressed is that special educators use the constructivist approach only to develop alternative models. Instead, they need to use the constructivist approach to reformulate their understanding of the concepts of competence and inadequacy. Because constructivism requires understanding the interaction between human development and learning from a more complex perspective. The fourth challenge is that we fail to transcend all domains' standard teaching strategies. At this point, it is essential to conduct research on teaching approaches that see teachers as learners in the context of school-wide reforms (Trent et al., 1998).

If we want a different and clear understanding of special education, the reforms must be made to cover everyone. Only policy-dependent reforms risk becoming independent from real life. When there is a gap between special education policy, research, and practice communities, less effective decision-making and interventions are used for students with disabilities (Greenwood & Abbott, 2001). There are difficulties in implementing special education policies, such as defining the procedures at the system level, not focusing on the implementation processes, and not accepting that the change processes require people's participation (Viennet & Pont, 2017, p. 14). In addition, special education teachers are not included at any stage of the policy process, and their views are not taken into account in changes to evaluation policy (Cavendish et al., 2020). These difficulties can be overcome by seeing students, teachers, practitioners, and even all staff as co-creators who provide input (Klingner & Boardman, 2011). Any effort possible, with increased collaboration between practitioners and special education teachers, will enable access to improved outcomes for more children with special education needs.

We are in a position to help bridge the gap between practice and research, and we will only have cosmetic reforms if we cannot develop reforms/research agendas to bridge this gap. Despite our paradigmatic shifts, structural reforms, and policy changes, children who always learn will continue to learn, and children who always fail will, unfortunately, continue to fail (Trent et al., 1998). The places where studies and applications are piled up can be listed as follows:

- The habit of labeling students in need of special education as unsuccessful,
- Belief in the necessity of simple, divided, and sequential instruction for students with special needs,
- The idea that students with special needs will not achieve success without guidance,
- The significant difference in the attitudes, opinions, and knowledge of special education teachers and general education teachers,
- The widespread resistance of the education system to change,
- Prejudice against the constructivist approach,
- Acceptance of "behaviorism" as the only correct approach to special education,
- Applying a uniform and often behavioral identity model and strategy in special education interventions.

In this period, when we are talking about contemporary theories, current data, and, most importantly, new discoveries about human beings, we think that it will be beneficial for us to eliminate the insistence on using behaviorism or the aging approaches that characterize our teaching processes. We can hope that the negativity of criticism of special

education will be replaced by a more accurate assessment of the past of special education and a more optimistic view of the future (Hockenbury et al., 2000). Maybe we will want to turn our route to different places by reaching the data that can satisfy us at the point of whether constructivism will be practical or not. We don't know which approach will make you feel more comfortable until we try and experience it. However, we are afraid that as long as we stay in the same place, we will drown in the same arguments.

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