
Constructivism in Teaching Reform of China Colleges

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Abstract

Constructivism, a theory emphasizing student-centered and self-directed learning, is widely regarded as instrumental in fostering 21st-century competencies such as autonomous learning, critical thinking, and innovation. It challenges the notion of passive knowledge acquisition, suggesting instead that knowledge is constructed by learners through active engagement. However, constructivism encompasses diverse views, emphasizing a continuum rather than a singular definition. Scholars advocate for both individual and social constructivism, differing in their emphasis on personal versus social knowledge construction. In education, constructivism promotes learner-centered teaching, where students actively construct their understanding rather than passively receive information. It stresses the importance of prior knowledge in shaping new learning experiences. While constructivist practices are prevalent globally, empirical evidence validating their effectiveness remains insufficient, particularly regarding deep learning approaches. China's educational reform, aligned with constructivist principles, seeks to shift from traditional rote memorization towards student-centered, experiential learning. Teachers are encouraged to facilitate active student participation, independent inquiry, and collaborative problem-solving. Constructivism is viewed as a modern alternative to traditional didactic methods, fostering a more engaged and participatory learning environment. Constructivist teaching methods focus on creating learner-centric classrooms where students actively participate in knowledge construction. Assessment in constructivist settings prioritizes students' diverse interpretations rather than seeking a single correct answer. While radical constructivists argue against assessing access to reality, others advocate for formative assessments that promote self-analysis and accommodate various responses. Implementing constructivist teaching styles aims to reduce student anxiety and stress by fostering positive classroom environments and encouraging active student participation. By bridging old and new information, students create new knowledge and experiences, promoting collaborative learning and problem-solving. Constructivism's impact

on teaching and learning lies in its emphasis on student curiosity, collaboration, and the application of knowledge in real-world contexts.

Keywords: *Constructivism, teaching reform, colleges, China*

Introduction

Constructivism, as a theory that supports a student-centered and self-directed approach, is considered helpful in developing 21st century competencies such as autonomous learning, independent thinking, and innovation (Guglielmino, 2014; Tan, Chua, & Goh, 2015). In the knowledge economy, constructivism is considered crucial for humans to produce knowledge needed for economic growth and democratization (Fuller et al., 2012). The tendency to implement constructivist theory in teaching reflects an international trend toward a more student-centered and self-directed approach in teaching and learning.

Constructivism challenges the notion that learners passively absorb knowledge solely from the external world (Lowenthal & Muth, 2008). Instead, it posits that knowledge is actively constructed by learners themselves. However, constructivism is not easily defined; it presents a complex array of perspectives on reality, knowledge, teaching, and learning (Sjøberg, 2007; Lowenthal & Muth, 2008). Rather than a fixed concept, constructivism is better understood as a spectrum of ideas, with various interpretations and implications. This diversity has led some scholars, such as Bickhard (1998), to prefer the term "constructivism" for its inclusivity and recognition of this diversity.

Learners and students must work collectively and share information to develop their understanding. Rather than receiving information passively, active participation in open discussions and cooperation can expand learners' viewpoints. This approach can enhance their knowledge and nurture their creative potential and problem-solving skills. Additionally, it can instill respect for the perspectives and experiences of others. Modern cognitive psychology has demonstrated that the acquisition of new knowledge is influenced by prior knowledge. The prior knowledge and methods stored in the memory system are essential internal conditions for creating study activities. The notion of constructivism in education exemplifies this. Active learning builds on the student's prior understanding and experiences.

While constructivist theories are widely adopted across various countries, their empirical validation remains elusive. Struyven, Dochy, and Janssens (2010) highlight that despite

widespread acceptance, constructivist teaching methods emphasizing deep learning, such as student-activated approaches, lack substantial empirical support compared to traditional instructional methods (Prosser and Trigwell, 1999). Historically, education centered on imparting declarative knowledge, with assessments primarily evaluating students' ability to regurgitate information rather than apply it practically. However, contemporary discussions emphasize the necessity for student-centered teaching strategies ("inputs") and more meaningful evaluations of student learning ("outputs"), underscoring a shift towards a more holistic educational approach.

The Concept of Constructivism

Constructivism, an epistemic theory, assumes that an absolute truth doesn't exist in the real world waiting to be discovered by scholars, encapsulated in textbooks, mastered by educators, and then transmitted to learners. Instead, it suggests that knowledge is "constructed" rather than "unearthed" (Phillips, 1995). Originating from studies on children's cognitive development, constructivism provides insights into the cognitive principles governing human learning. It offers a better understanding of the mechanisms behind learning processes, the formation of meanings, the development of concepts, and the crucial elements necessary for an optimal learning environment. In contrast to traditional instructional methods characterized by passive student reception, rote memorization, teacher dominance, and suppression of individuality, constructivism emphasizes that learners are best served by methods, tools, and settings that prioritize student autonomy and self-direction. These approaches empower learners to actively shape their learning experiences by constructing their own interpretations of reality and forming unique worldviews (Jonassen, 1991). Adopting a constructivist teaching approach entails refraining from impeding students' knowledge-building process by dictating what is right or wrong, which concepts to focus on, or how to approach their construction (Von Glasersfeld, 1995).

The extent of external assistance a learner should receive hinges on whether they adhere to individual constructivism or social constructivism. As elucidated by Liu and Matthews (2005), individual constructivism, rooted in Piaget's work, centers on individuals' personal interpretation of their perceptual experiences and the autonomous construction of knowledge. In contrast, social constructionism, influenced by Vygotsky's ideas, underscores the communal interpretation of perceptual experiences and the collective construction of knowledge within sociopolitical contexts. Consequently, individual constructivism underscores self-reliant

learning as it posits that meaning-making primarily occurs at the individual level, whereas social constructivism maintains the contrary view (Lowenthal & Muth, 2008).

Constructivism promotes a learning approach that centers on the learner, guided by the teacher. Students take on the primary role in processing information and actively construct meaning, rather than being passive recipients of external input or subjects of indoctrination. Knowledge does not exist independently in physical form; while it may be conveyed through language and widely recognized, this does not guarantee uniform understanding among learners. Genuine comprehension is achieved through learners' own construction processes, drawing from their unique experiential backgrounds within specific learning contexts. Without this active engagement, learning devolves into mere memorization or passive absorption, lacking true understanding. Teaching cannot simply impart predetermined knowledge; instead, it's crucial not to impose our own understanding onto students or rely on social authority to dictate learning. Knowledge reception is a process that individuals must undertake themselves, using their experiences to critically analyze the rationale behind the knowledge presented. In the learning journey, students not only grasp new knowledge but also engage in analysis, experimentation, and critique.

There are multiple advantages and disadvantages of constructivism that are also provided in the study. Based on that, the ideas portray that collaborative working is a key factor here. The teaching and learning paradigm is different on this factor, and it also helped to change the critical areas more than anything. The collaborative idea of sharing a group project comprising a large group of students is the most comparative thing to deal with. Mainly, teachers take advantage of these areas and take action as per the need to promote the students and to help them identify their skills which they can implicate in the future. As Kaliaspos (2021, p.105) mentioned, forcing the students to learn by themselves sometimes becomes critical. However, the impact of the theory, known as constructivism theory, penetrates students' minds to become more active while participating. It also helps to understand the students' ownership of the feeling factors and engages their creativity and instincts while working.

The Principles of Constructivism

First, teachers are required to have the theoretical and ideological ability of constructivism. This is a great guidance for teachers of mental health education for students in colleges and universities in China, that is, to constantly use new philosophical theories to develop and

construct their own psychoeducational theory system. Secondly, it is required to create the environment and atmosphere of teacher-student interaction. This is a great inspiration for the current mental health education activities in colleges and universities, that is, to create an environment and field that students like to carry out mental health education (Zhang, 2020). Thirdly, it is required that teaching must be student-centered, paying attention to the learning process, learning effect, learning foundation, learning methods and means. This is a great inspiration for mental health education activities in colleges and universities, which requires the entire educational work to adhere to and implement the scientific concept of student-centeredness, and make it an enduring belief in mental health education in colleges and universities. Fourth, the teaching is required to adhere to the principles of constructivist education theory. For the current college mental health education activities have great inspiration, that is, the current college teachers in the opening of mental health education must follow the constructivist principles of psychological education and the law of development of higher education.

Constructivism in China Teaching Reform

China's teaching reform is part of China's ambitious nationwide education reform (also known as "New Curriculum Reform"; New Science Reform). The 2001 "Basic Education Curriculum Reform Outline (Trial)" (Ministry of Education, 2001) clarified the goals and content of education reform. Noting that existing basic education courses "cannot meet the requirements of the times," the Ministry of Education aims to promote "quality education" by reforming the curriculum system, structure and content. The formulation of "quality education" is significant because it is in sharp contrast to traditional "exam-oriented education" whose primary task is to spread knowledge, preach, master content, and enrich content in high-stakes exams. achieve academic success. practice. To adapt to the requirements of the era of knowledge economy, China's reforms aim to cultivate "all-round development students" who are "innovative, practical, and equipped with basic knowledge, abilities and methods for a lifelong career." Learning" (Ministry of Education, 2001, p. 1). Since the announcement of the curriculum reform in 2001, all primary and secondary schools (middle and high schools) in China have launched a series of policy initiatives covering school management systems, curriculum content, teaching methods, assessment, and teacher training (Tan & Chua, 2015). In view of the wide scope of China's new curriculum reform, this article limits its research scope to teaching reform, that is, the new curriculum reform communicated changes that impact teaching.

The main aim of educational reform is to transition from an excessive focus on passive learning, memorization, and mechanical training towards fostering students' active engagement, independent inquiry, practical skills, problem-solving abilities, and collaboration (Ministry of Education, 2001, p. 1). Teachers are encouraged to move beyond merely transmitting knowledge and skills to ensuring that their teaching methods promote holistic development, including the cultivation of students' emotions, attitudes, and values. These aspects collectively constitute the "three dimensions of learning objectives" used to evaluate teaching quality. Teachers should prioritize nurturing students' independence and autonomy, guiding them to question, investigate, explore, and learn through practical experience. It's essential to create a supportive educational environment that respects students' individuality, addresses their diverse learning needs, and encourages active participation and enthusiasm for learning. By transitioning from "traditional teaching" to a more "modern" approach, teachers can effectively foster students' personalized and active learning experiences (Wang, 2009). As Wang (2009) explains, the hypothesis is that teachers transition from “traditional teaching” to “modern” teaching:

“Traditional teaching is more or less a kind of knowledge infusion, with students becoming passive recipients of knowledge and teachers becoming the carrier of knowledge. This requires teachers to use certain life situations to set up questions and confusions so that students can conduct independent inquiry, thereby changing students' learning methods. In addition, students can conduct independent inquiry on a collaborative basis to help and support each other to achieve common learning goals” (p. 41).

To facilitate this transition, the Ministry of Education advises educators to employ the following instructional approaches: Incorporating real-life situations into classroom lessons to help students relate their experiences to the curriculum; Introducing hands-on learning activities to enable students to learn through practical engagement; Encouraging the adoption of student-centered learning models such as inquiry-based and cooperative learning; and integrating the transmission of knowledge with the transmission of cultural values and ideas (Wang, 2009). Additionally, Wang noted that the government supported teaching reforms by offering various forms of training and resources to schools. These resources encompassed teacher training sessions, conferences, educational excursions, trials of new national

curriculum standards, on-site assessments of operational methods, student assessments, teacher evaluations, and professional development opportunities for educators.

While official documents do not explicitly outline the specific teaching theory driving educational reform, Chinese scholars and educators generally attribute constructivism as the primary learning theory behind the reform efforts (Shu, 2012). Chinese academics and educators associate constructivism with the overarching goals of teaching reform, which prioritize "quality education" overall and particularly endorse "student-centered" and "self-directed" approaches. For instance, Zhang (2010) contended that teaching reforms have integrated constructivist principles, perspectives, and conclusions into the everyday discussions of teachers and researchers. Regarding the revised Chinese curriculum, Zhang highlighted that the teaching objective no longer solely aims to transmit comprehensive language knowledge systematically. Instead, the learning objective aligns with the "constructivist" ideal of fostering independent learning and practical application of language in real-world scenarios; students now take on the role of "learning masters," while teachers are viewed as facilitators and guides. Similarly, Wang (2008) noted the significant influence of constructivism on China's reforms, evident in its emphasis on real-life knowledge exploration and application, encouragement of proactive interdisciplinary problem-solving by students, expectation of teachers to facilitate interactive and cooperative learning, and emphasis on the necessity of formative assessment (Ren, 2008).

Constructivism is frequently touted as a viable alternative to the conventional communication methods prevalent in China. These traditional methods have been criticized for their didactic nature, teacher-centered approach, and emphasis on content, which tend to foster passive and rote learning (Pei, 2008; Wu & Qian, 2008). Campoy (2005) characterized this approach as teachers merely serving as conduits for imparting memorized skills and static textbook information, with subjects like science being taught strictly through textbooks by authoritative figures and memorized by students, and history and language being presented in a one-sided manner with a focus on grammar and spelling rules. Constructivism is increasingly viewed as a modern alternative to these traditional methods, involving learners actively through participation and situated learning (Phillips, 1995).

Echoing this sentiment is Zhong (2005), who argues that teachers shouldn't solely rely on knowledge dissemination but should encourage students to construct their own understanding.

Shu (2012) shares this perspective, advocating for constructivism as an education model that is student-centered and promotes self-directed learning, encouraging students to explore, discover, and construct knowledge independently. In the context of teaching reform, Chinese educators must design and select learning materials, tools, strategies, and environments that foster students' abilities to form, express, discuss, question, and, if necessary, revise their beliefs.

The constructivism theory emphasises the importance of social context, making it a valuable tool in education. This theory is especially relevant for college students in China, where large class sizes are common. According to Researchgate.net (2022), the constructivist approach views knowledge as a product and a process. By adopting this approach, teachers can create a more learner-centric model for college students. Teachers motivate students to engage in constructivist activities that help them develop new schemas and become expert learners. This approach is particularly effective in mental health education, where students benefit from understanding how their learning process works. Ultimately, this approach helps students become more skilled learners and contributes to the country's future success.

In terms of assessment, constructivist educators typically do not seek a single "correct" answer but instead focus on the diverse interpretations generated by learners. The assessment approach favored by constructivists involves evaluating, on one hand, the level of active engagement, conceptual innovation, creativity, concept mapping, and coherence of understandings between teachers and students as well as among students themselves. This task becomes notably challenging due to the ambiguity inherent in linguistic communication. However, the specific method of assessment varies depending on various factors, including the particular type of constructivism adhered to by the teacher. It is useful here to differentiate "radical constructivism" from other forms of constructivism. According to von Glasersfeld (1984, 1989), a proponent of "radical constructivism," knowledge is neither required nor capable of being "true" as it represents an individual's subjective interpretation of the world, independent of any observer (i.e., ontological reality). In essence, cognition serves the purpose of adapting to the empirical world rather than uncovering ontological truth. As von Glasersfeld phrases it, "The outcomes of our cognitive endeavors are designed to assist us in managing the empirical world, not to offer an 'objective' depiction of the world as it might exist independently of our experiences" (von Glasersfeld, 1991, pp. xiv-xv). Concerning assessment, radical constructivists argue that evaluating one's grasp of reality is futile since there exists no

objective reality that all learners can uniformly interpret. However, less extreme constructivists advocate for an assessment process that encourages self-reflection and accommodates a broader range of responses (Jonassen, 1991).

Moreover, college students will be able to access their education through the help of broadening tools. Moreover, this theory recognises the role of the teachers, and here, the teacher needs to help the college students to regenerate only facts. The teachers can use various tools to study mental health, such as video clips, audio clips, and PowerPoint presentations. Hence, students will be able to know how the tools are helping them gather more information from the real world. According to the view of John (2020, p. 33), nature, as well as the nurture of knowledge, is the main criterion of this theory. Hence, the classroom environment for imparting knowledge of mental health should be supportive, where linguistic knowledge must be found. On the other hand, college students should disregard any mechanism and find the inner meaning of the text related to the study of mental health.

Implementing a constructive teaching style in academic operations is primarily driven by the need to reduce the likelihood of student melancholy, anxiety, and stress. The government aims to lower the prevalence of mental depression among the youth by providing adequate care and preventative measures. In constructivist theory, the emphasis is on the students as the central focus of instruction. Educators are encouraged to demonstrate more compassion towards their students and to work towards creating a positive and conducive classroom environment. The approach values instructor initiative and active student participation, with a collaborative and exploratory learning process based on prior knowledge and experiences. This methodology aims to improve students' mental acuity steadily.

Encourage students to create new knowledge and experiences by bridging old and new information. Education needs to shift from traditional, top-down leadership to collaborative learning. In conventional classrooms, teachers have held positions of absolute power, often at the expense of student respect and care, leading to a growing divide and even conflict. As ancient wisdom reminds us, "Those who possess knowledge are teachers, and those who embody morality are exemplars." When students learn to communicate effectively with their instructors and respond to feedback constructively, it strengthens the relationship between the two groups. Create a classroom dynamic where the teacher and students are equals. The constructivist approach emphasises experiential learning over rote memorisation in a realistic

or simulated setting. In traditional education, the focus has been on student's ability to retain and recall information while downplaying the importance of their prior knowledge and experiences.

To counter this, we must implement cutting-edge pedagogical tools to provide an engaging learning environment where students can actively participate in acquiring knowledge. Independent problem-solving is expected, and linking new information with prior understanding can boost problem-solving skills. Overall, constructivism is gaining popularity in academic circles and the public sphere, encouraging the development of new ideas and perspectives. It is important to apply relevant theories to basic education in a fair and balanced way, considering issues like the objectivity and subjectivity of knowledge, knowledge transfer and creation in learning, instructor supervision, and putting students at the centre of the learning experience (Mangkhang, 2021).

To understand the impact of constructivism in both teaching and learning, going through the learner's curiosity and the teacher's eagerness to solve their complications becomes a more prominent part. Different studies show that constructivism contributes to the different perceptions of the students based on the experiences they have used so far. Students build their knowledge and utilise their skills occasionally to design their careers and reach their goals. Constructivism is considered the most important part of the teaching and learning system because it promotes social factors more than anything. In this context, evaluating communication and implementing a collaborative task force in a group implicating these factors will become two of the most critical paths to be facilitated. Students need to learn and articulate the learning process and implement these factors in creative areas so the chosen task may be successful.

Teachers can employ techniques that identify a student's potential via this method. Introducing group study encourages healthy competition among students, which can positively impact their learning and alleviate their fears about their abilities. This innovative approach to learning can also help students overcome mental health challenges in college. Students' interest in their studies can be cultivated by incorporating this hypothesis and therapist guidance. Constructivism in teaching is crucial in creating a collaborative problem-solving environment for students. This approach encourages students to take a more active role in finding solutions

to their problems, drawing on their personal experiences instead of relying solely on instruction from teachers and instructors.

Conclusion

In conclusion, constructivism emerges as a transformative educational theory with profound implications for teaching and learning in the 21st century. As highlighted throughout this discussion, constructivism challenges traditional pedagogical approaches by placing the learner at the center of the educational process. By emphasizing active participation, independent inquiry, and collaboration, constructivism fosters the development of critical thinking, problem-solving skills, and creativity among students. The multifaceted nature of constructivism, encompassing individual and social perspectives, underscores its adaptability to diverse learning environments and contexts. Whether through individual interpretation of perceptual experiences or through social interaction and collaboration, constructivism offers a flexible framework for knowledge construction and meaning-making. In the context of China's teaching reform, constructivism has emerged as a guiding principle, steering educational practices toward student-centeredness and self-directed learning. By prioritizing active student participation, exploration, and application of knowledge in real-life situations, Chinese educators are striving to cultivate innovative, independent, and holistic learners capable of thriving in the knowledge economy. Moreover, constructivism holds promise in addressing mental health challenges among college students by fostering supportive, collaborative learning environments and encouraging students to take ownership of their learning journey. By bridging old and new information, linking prior knowledge with new experiences, and promoting independent problem-solving, constructivism offers a pathway to nurturing students' mental acuity and resilience. As constructivism continues to gain traction in educational discourse and practice, it is imperative to integrate relevant theories in a fair and balanced manner, considering issues of knowledge transfer, instructor guidance, and student autonomy. By embracing constructivist principles, educators can create dynamic learning environments that inspire curiosity, creativity, and collaboration, ultimately empowering students to become lifelong learners and active contributors to society.

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