An Exploration of the Benefits and Constraints of Social Constructivist Classroom and Its Application in Chinese Public Primary Schools

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Abstract: This article critically examines the benefits and limitations of implementing social constructivist classrooms in Chinese public primary schools. It highlights the contrast between China's traditional teacher-centered education system, influenced by Confucianism, and the student-centered, interactive learning model promoted by social constructivism. While social constructivism fosters student motivation, critical thinking, and collaboration, its application in Chinese classrooms faces significant challenges. These include cultural resistance rooted in Confucian values, the dominance of examination-based assessments, and administrative pressures on teachers. The study underscores the importance of adapting social constructivist methods to fit the unique cultural and educational context of China, advocating for more in-depth research to create effective models that harmonize with Chinese traditions and modern educational reforms.

Keywords: Social Constructivism; Chinese Primary Education; Teacher-centered Learning; Confucianism in Education; Educational Reform; Collaborative Learning; Student-centered Learning; Examination Culture in China

1. Introduction

Freire (2020) presented a seminal article in which he used the term 'banking education' to describe vividly the stereotypical education paradigm. He posited that education became an act of deposit, where the teacher 'filled' the students with the knowledge to become depositories, and the students meekly allowed themselves to be 'filled' to become depositories. This traditional teacher-centred approach to classroom instruction seldom fostered questioning, independent thinking, or student interaction (Chen & Yu, 2019)[1]. Even in group activities that required collaboration, this instructional model still discouraged discussion and exploration of the concepts. Furthermore, it neglects students' interests and mental states, stifling their cognitive processes and creativity (Gajda et al., 2017). Traditional education dominated the field of pedagogy by default, a phenomenon that was particularly acute in China. Chinese policies forced schools to focus on limited and measurable outcomes, and academic performance became a poor indicator (Wang, 2015).

In contrast, social constructivist thinking has received increasing attention from a variety of researchers and educators in the past decade (Hằng et al., 2015). Its emergence has led to the realisation that the role of the learner can be changed from passive to active in the past. Students played a more active role in conducting experiments and drawing their own conclusions in the social constructivist paradigm (Shah, 2019). Correspondingly, the teaching model has also gradually shifted from teacher-centred to student-centred. Concurrently, China has carried out educational reforms since the early 21st century, aiming to challenge the traditional education model (Wang, 2023). Consequently, there is an urgent need for an analysis of the strengths and weaknesses of the social constructivist classroom and an exploration of its application in Chinese public primary schools. Therefore, this piece of writing will briefly describe the existing educational model in China[2], critically discuss the social constructivist classroom, and try to elaborate on its application in Chinese public primary schools, encompassing the foreseeable challenges and how they can be overcome.

2. Context

Tao et al. (2013) conducted classroom observations, revealing that primary school teachers in Australia exhibited a higher degree of autonomy in their teaching practices. These teachers explored innovative and creative teaching methods, enjoying considerable freedom in shaping the content of their lessons. For instance[3], an Australian teacher welcomed local scientists into the classroom to assist students in their exploration of local birds. Primary school students in Australia were also being

allowed to spend more time engaging in active and open-ended tasks, such as designing experiments in the classroom. In addition, Vietnam, an Asian country, has made improvements in its formal primary school curriculum in recent years (Hằng et al., 2015)[4]. Notably, teachers have shifted towards using neutral language to evaluate students' statements, departing from the biased 'correct or incorrect' approach. Additionally, there was a move towards fostering equal footing in communication between teachers and students (Hằng et al., 2015).

In contrast, Chinese education was heavily influenced by Confucianism, which assigned the primary role of teachers to imparting knowledge and answering questions. There was a deep-seated belief that books were beneficial and sacred (Fan et al., 2004). As a result, Chinese classrooms were often characterized by large class sizes, highly authoritarian learning environments, descriptive teaching methods, and a focus on teaching to the test (Cobern et al., 2010). Existing research aligned with these stereotypes, indicating that many teachers in mainland China adopted an authoritarian and directive style in their teaching practices[5], leading to lecture-led for the majority of the time (Li, 2004). Given the emphasis on achieving academic targets, teaching strategies naturally leaned towards testing, prioritizing the acquisition of facts over the enhancement of students' behavioral and analytical skills (Tan, 2020)[6]. Chinese students are used to passive learning and often feel uneasy about engaging in cooperative learning activities (Boulter, 2007). Even when participating in activities, they tend to be more involved in passive and closed practical tasks, such as observing the teacher conducting an experiment (Cobern et al., 2010). For this reason, teachers justified their teaching methods tending to achievement attainments over conceptual understanding, often constrained by the pressure of crowded curricula and examination demands (Wang, 2023)[7].

3. Social constructivism with its application in education setting

In 1966, Jerome Bruner introduced constructivism, suggesting that individuals seek to comprehend the world through experience and reflection (Saleem et al., 2021). Subsequently, constructivism was advocated as an approach to explore children's levels of understanding (Mvududu & Thiel-Burgess, 2012). As an educational theory, constructivism was applied to encourage students to employ practical methods for knowledge acquisition (Saleem et al., 2021). Throughout this process, learners formulated hypotheses, tested theories, experimented with potentially unfruitful approaches, asked questions, and engaged in collaborative sharing (Rannikmäe et al., 2020). Gradually, they develop their understanding of the world[8], utilising this comprehension to adapt and absorb new information. In a constructivist setting, learners assume a central role in goal setting, regulating the learning process, and conducting self-assessment. Consequently, both educators and students in a constructivist classroom acknowledged the dynamic and ever-changing nature of knowledge[9], challenging students to extend and explore their ideas beyond viewing knowledge as inert fragments to be memorized.

Phillips (2000) suggested that educational constructivism encompassed various variants, with social constructivism emerging as one of the most prominent. Lev Vygotsky proposed social constructivism as a learning theory in 1978 (Vygotsky & Cole, 1978). This perspective perceived language and culture as fundamental frameworks through which humans experience[10], communicate, and comprehende reality (Saleem et al., 2021). It was noted that cognitive growth occurred first at the social level before manifesting within the individual (Vygotsky & Cole, 1978). Therefore, connecting oneself to the environment through understanding others and constructing knowledge at the social level became crucial for learners (Kalina & Powell, 2009). Social constructivism advocated methods for facilitating group activities, communication, exchange, and reflection among learners (Amineh & Asl, 2015)[11]. It encouraged learners to exercise greater autonomy in sharing ideas with others (Rannikmäe et al., 2020). According to Watkins (2017), social constructivism brought a shift in the centre of the classroom toward students, followed by a series of positive changes. Classroom teachers reported dramatic improvements in motivation and behaviour, with a noteworthy shift in motivational orientation towards learning. Students developed their abilities by acquiring new skills and mastering fresh information, fostering self-motivation and an inclination to achieve more[12]. Notably, attitudes towards mistakes transformed, with students no longer viewing errors negatively or fearfully. Instead, they were even willing to celebrate mistakes and glean lessons from them. This supports the view of social constructivist scholars, asserting that learning is an active process, and learners should discover their own principles, concepts, and facts (Aljohani, 2017)[13].

Building upon the principles of social constructivism, Shah Ph and Kumar (2019) illustrated the characteristics of a successful social constructivist classroom in their study. In Nepal, where local teachers lacked access to the curriculum and teacher's guide, textbooks became the sole teaching aid. The predominant teaching method in local primary schools was lecturing, with a greater emphasis on rote learning and memorisation of knowledge rather than understanding and practical application. For

this reason, Shah Ph and Kumar (2019) conducted a month-long series of lectures on social studies for 30 Grade 6 students in a Nepali primary school. The lessons focused on diversity, the rural economy, and rural municipalities[14]. Classroom discussions, as observed, enabled students to comprehend social diversity and discrimination. The discussions also provided the space for students to reevaluate their own stereotypes and reflect on their prejudices. Moreover, the students' initiatives in understanding the rural economy extended beyond textbook examples, with decision-making being a collaborative process through discussion. This study revealed that students engaged in critical thinking about social science issues demonstrated awareness of societal occurrences, and were open to revisiting and challenging existing ideas to construct more relevant and progressive concepts[15].

Social constructivism as a pedagogical approach emphasised student participation, discussion, and sharing, but more importantly, this scene of peer interaction was moderated and organised by the teacher (Rannikmäe et al., 2020; Saleem et al., 2021). The role of the teacher as a holder of expertise and a facilitator who guides students' learning remains to be crucial in the social constructivist classroom (Hang et al., 2020)[16-20]. Therefore, these discussions in the classroom among students can be facilitated by effectively directed questions, scenarios, and the introduction and clarification of concepts and information (Muhammad, 2021). However, the teacher's role may need adaptation to afford students the opportunity for self-constructing their knowledge. It is essential to avoid an overly 'romantic' or misinterpreted interpretation of social constructivism, as this can lead some teachers toward parochialism, resulting in questionable educational practices (van Hover & Hicks, 2017). Such misinterpretations may encourage the belief that frontal teaching, skills practice, and independent completion of assignments were undesirable, emphasizing whole-class discussions or small-group learning activities instead. The role of the teacher in social constructivism did not imply complete withdrawal but rather signifies a guide and facilitator of learning for students (van Hover & Hicks, 2017). As observed by Shah (2019), these classroom interactions do not shorten the teacher's role[21], but rather shift to an instructional approach that promotes conceptual shifts and skills development, connecting critical thinking to real-world problems.

Although the shift in the teacher's role was acknowledged, it did not immediately gain acceptance from students. At the beginning of implementing the social constructivist classroom, students expressed frustration with the teacher's reduced instruction. Despite realizing that the teacher aimed to encourage independent idea development, students struggled with the absence of written answers on the board (Wang & Zhang, 2018). This negative voice due to the change in teaching methodology did not stop there. As early as Hand et al. (1997) conducted a four-year-long observation of social constructivist classrooms, found that 18% of students presented negative attitudes towards such classes. Their dissatisfaction was from perceiving an excess of ideas presented in class, deeming it a waste of time. Students accustomed to learning by extracting notes from the board felt confused when the teacher did not provide clear notes[22]. This unfamiliarity also affected their exam preparation, disrupting their usual pattern of memorizing notes, practicing extensively, and forgetting the points after the exam (Montgomery, 2020). Faced with exams following a social constructivist approach, students often felt overwhelmed and uncomfortable, experiencing disorientation, and believing these exams did not require traditional study methods (Armstrong, 2019; Muhammad, 2021). Nevertheless, some students reported that social constructivism enhanced classroom engagement, leading them to take more comprehensive notes during discussions than from board excerpts[23]. Consequently, exam preparation has became more manageable than in the past (Hand et al., 1997). Transitioning to a new teaching and learning mode requires teachers to provide sufficient time and support to help students adapt.

4. Constructivism and traditional thought with Chinese characteristics

Observing the existing teaching and learning models in China revealed a dilemma in contemporary education. Despite challenges and shortcomings in the application of social constructivism in the classroom, its advantaged continue to appeal to China, prompting a realization that educational reform was urgently needed[24]. Influenced by globalisation, Asian countries or regions have embraced methods based on social constructivism in primary schools[25]. For instance, Japanese teachers have been encouraged since 1999 to implement a curriculum that attempted to place practical work and outdoor learning at the centre of learning. In Taiwan, a related curriculum reform was carried out in 2000, with the general trend being to foster cooperative learning and to affirm that the education system would aim to develop students' cooperative skills. Responding to this trend, China issued an opinion on curriculum reform at the beginning of the 21st century, urging an end to the overemphasis on the transmission of book knowledge and the repetition of rote memorisation (Performers & Reformers,

2010)[26]. The circular emphasised the social constructivist aspect of the curriculum reform, encompassing a student-centred, inquiry-based approach to education (Lin, 2019).

Ng and Rao (2008) conducted an investigation into primary school mathematics classrooms in Hong Kong, China, following educational reforms[27]. It is encouraging to note that the 2002 syllabus effectively guided primary school teachers in Hong Kong to select and organize curriculum content. This approach enabled teachers to recognize the limitations of traditional teaching methods and facilitated children in understanding and constructing knowledge[28], fostering mathematical concepts through hands-on experiences and linking mathematics to everyday life. In addition, teachers gave the children an environment that increased curiosity and allowed for discovery by directing the students to participate in activities. This aligned with Vygotsky's suggestion of active participation in structured activities, with guidance, support and challenge from peers, and teachers to actively construct 'meaningful knowledge' in students' minds (Vygotsky & Cole, 1978). The study indicated a shift towards activity-based primary education in Hong Kong, departing from traditional didactic training and practice methods. However, primary education in Hong Kong has also retained some distinctive Chinese characteristics, such as a focus on practice. The traditional approach of assessing students through pencil and paperwork, tests, or examinations was still considered a key indicator of 'success'[29]. As a result, primary school teachers spent considerable instructing students to complete individual assignments with fixed answers, rather than encouraging children to collaborate and discuss. Such a move reflected the fact that primary education in Hong Kong was still in a transitional stage, with classrooms incorporating traditional Chinese teaching methods, resulting in 'constructivism with Chinese characteristics'[30].

Contemporary Chinese pedagogy reflected the result of cultural interactions that embed Western epistemologies into traditional Eastern frameworks, and therefore there were bound to be some conflicts and challenges (Xudong & Li, 2020)[31]. The transition from tradition to modernity in the context of social constructivism in Chinese public primary schools faces difficulties, influenced significantly by traditional Chinese Confucianism and the imperial examination system. Confucianism, as the cornerstone of traditional Chinese culture, has influenced Chinese educational thought and practice for more than two thousand years (Deng, 2011). This traditional Confucianism as a form of knowledge continued to maintain a broken tradition in the contemporary Chinese educational context (Deng, 2011)[32]. In the Confucian tradition, the education system was orientated toward the preservation of knowledge, a mode of learning that directed students to memorise the classics and required them to demonstrate their ability to interpret texts (Wu, 2011). In addition, the teacher in Confucianism represented the classroom authority, which also remained in the classroom observations of Ng and Rao (2008), maintaining a controlled and less noisy classroom environment where students listened to the teacher and adhered to the teacher's plan[33].

Moreover, the application of social constructivism in Chinese public primary schools was challenged by another traditional idea related to the existing assessment system. The examination system, which evolved from the traditional imperial examinations of ancient China, dominates contemporary education (Wu, 2011). This cannot be separated from the fact that there has always been considerable importance and fascination with standardised grades or test results, which subsequently triggered a tendency towards summative assessment with only one correct answer (Tan, 2017)[34-37]. Thus, education has thus gradually become highly formalised and rigid (Ho, 2018). Within the context of this socio-cultural worldview did not support the constructivist preference for formative, authentic, and potentially multi-answer assessments (Tan, 2017). This narrow focus on predetermined answers, particularly at the primary level, creates challenges in establishing connections to social constructivist learning.

5. Collaborative learning and open classes based on administrative pressure

According to social constructivism, the significance of collaborative learning for learners lies in the constant negotiation to gain different perspectives, serving as a crucial avenue for promoting deep reflection and the development of new, integrated perspectives (Erciyes, 2020). Collaborative learning[38], as highlighted in the social constructivist classroom, emphasised more than a simple division of labour, but rather moment-to-moment interaction and communication (Wang & Wang, 2022). Collaborative learning as a key strength of social constructivist classrooms, has also been recognised by students from Chinese public primary schools[39]. Li and Chu (2018) Through their research, Li and Chu (2018) found that many Chinese primary school students lacked interest in writing, the most complex skill in Chinese. Their performance in composing was often mechanical and uninteresting, which could be naturally inseparable from the educational methods[40]. Even when Chinese teachers provided guidance and sample essays, teacher-student interaction remained lacking[41].

With the increasing integration of information technology into the classroom, a wiki-based collaborative processing writing pedagogy (WCPWP) has been developed to enhance the writing skills of students in upper primary schools in mainland China. To investigate this, Li and Chu (2018) conducted a detailed study in which upper primary school students were divided into writing groups of four and were asked to complete a group writing assignment through three parts: wiki-based group prewriting[42], drafting, and revising. The wiki-based group prewriting was a very important stage. It encouraged students to discuss the topic, context, and subject matter of their writing. The attention and preparation dedicated to this stage proved instrumental in saving time and effort during subsequent drafting and revising. The study revealed that the majority of the students held positive perceptions and attitudes towards the WCPWP. They expressed that this learning method facilitated their motivation to write, increased team interaction. and assisted them in expanding their writing ideas while improving the overall organization of their writing.

However, not all students unanimously praised the WCPWP study method, as 38% reported facing collaboration issues during the study. Most of the conflicts centred around disagreements and controversial division of labour, resulting in a slowdown of the group's overall writing progress. Some students even reported that individual troublesome classmates would deliberately change or disrupt the progress of the group. Studies have confirmed that collaborative learning did not always lead to positive results, with a correlation to learners' age, motivation, and communication skills (Wang & Wang, 2022). Consequently, teachers need to invest more time in enhancing cooperative education for these primary students. Even so, the innovative WCPWP suggested new teaching strategies for Chinese primary school teachers, focusing on the writing process and learning to create value in collaboration, developing personal responsibility while working for equitable solutions (Wang, 2011).

For this reason, China's National Curriculum Reform promotes collaborative learning and mandates schools to incorporate it into their educational practices. However, teachers face pressures from mandated curricula, performance evaluations. Thus, there was another challenge in applying social constructivism in Chinese public primary schools. Public primary schools in China were obligated to adhere to national curriculum standards and local teaching guidelines, with school programmes on collaborative learning assessed and monitored by school leaders (Wang, 2011). One of the frequent ways of monitoring teachers was peer review through classroom observation. In one public primary school in Beijing, for example, each teacher in the school was required to conduct two open classes every semester for observation and evaluation (Wang & Wang, 2022). While such open classes provided teachers with the opportunity to work in an interdependent manner, they undeniably brought with them countless comparisons, evaluations, and critiques. Consequently, due to these administrative pressures, most teachers did not adopt collaborative learning as their primary mode of teaching or used carefully controlled or planned collaborative learning to meet regulations. For example, a typical 40-minute public lesson was usually divided into three stages. The first 10 minutes were used to introduce the objectives of the lesson and to assign tasks, followed by 15 to 20 minutes for collaborative learning, and the last 10 to 15 minutes were used for summarising and giving feedback. There was therefore considerable irony in an open classroom being used for assessment and presentation, especially when collaborative learning may be perceived as a time-consuming or disruptive presence in the primary classroom.

Moreover, such public lessons were not integrated into the daily teaching activities of public primary school teachers, who must find additional time to organize these 'performances' (Wang, 2015). Consequently, despite the proven utility of collaborative learning for students, teachers were more concerned about whether the collaborative process went smoothly, whether pupils would exhibit disciplinary problems, and whether there was a clear division of labor (Buchs et al., 2017). The pressure from the administration pushed teachers away from cooperative learning. Faced with such challenges, Chinese public primary schools have attempted to strike a new balance between institutional and social constructivist classrooms (Liu et al., 2016). Since 2017, teachers have been able to book newly renovated 'multi-functional classrooms' that allowed students to engage in collaborative learning in larger classrooms with more advanced multimedia equipment (Wang & Wang, 2022). Moving forward, a more in-depth and detailed exploration of the application of social constructivist classrooms in Chinese public primary schools was essential, along with a commitment to finding educational models that were more suitable for Chinese culture.

6. Conclusion

To sum up, the traditional teacher-centred model of education practiced in China, which discouraged discussion and exploration, has resulted in educational rigidity. Social constructivism, as proposed by Vygotsky, suggested that learners

construct knowledge at a social level, connecting themselves to their environment. It facilitated learners to engage in activities and to communicate and interact. Therefore, when social constructivism was in the education setting, students' motivation and behaviours were greatly improved and they learned to examine their stereotypes and reflect on them. However, some students were not able to adapt to the social constructivist mode of teaching and learning. Classroom discussions and exams may be confusing and disorienting for those those accustomed to traditional teaching and learning methods.

Since the beginning of the 21st century in China, educators have recognized the need to provide students with an active environment, fostering knowledge construction, cooperation, and writing skills through collaborative writing sessions. Despite the advantages of the social constructivist classroom when applied to Chinese public elementary schools, challenges persisted. Traditional Chinese Confucianism and assessment systems posed obstacles to its seamless implementation. In addition, the lack of collaborative learning among some primary school students and the existing administrative policies in China have made the social constructivist classroom for collaborative learning a stressful task for teachers. Looking ahead, there is a pressing need for a more in-depth and detailed exploration of the application of social constructivist classrooms in Chinese public primary schools. Efforts should be directed toward finding a culturally appropriate education model in China that addresses these challenges and aligns with the principles of social constructivism.

References

[1]   Aljohani, M. (2017). Principles of "constructivism" in foreign language teaching. *Journal of Literature and Art Studies, 7*(1), 97-107.

[2]   Amineh, R. J., & Asl, H. D. (2015). Review of constructivism and social constructivism. *Journal of social sciences, literature and languages, 1*(1), 9-16.

[3]   Armstrong, F. (2019). Social Constructivism and Action Research: Transforming teaching and learning though collaborative practice. In. Routledge.

[4]   Boulter, C. H. (2007). *EFL and ESL teacher values and integrated use of technology in universities in the Asia-Pacific region* Queensland University of Technology].

[5]   Buchs, C., Filippou, D., Pulfrey, C., & Volpé, Y. (2017). Challenges for cooperative learning implementation: Reports from elementary school teachers. *Journal of education for teaching, 43*(3), 296-306.

[6]   Chen, W., & Yu, S. (2019). Implementing collaborative writing in teacher-centered classroom contexts: student beliefs and perceptions. *Language Awareness, 28*(4), 247-267.

[7]   Deng, Z. (2011). Confucianism, modernization and Chinese pedagogy: An introduction. *Journal of Curriculum Studies, 43*(5), 561-568.

[8]   Erciyes, E. (2020). Reflections of a social constructivist on teaching methods. *European Journal of Educational Sciences, 7*(4), 16-26.

[9]   Fan, L., Wong, N.-y., Cai, J., & Li, S. (2004). *How Chinese learn mathematics: Perspectives from insiders* (Vol. 1). World Scientific.

[10] Freire, P. (2020). Pedagogy of the oppressed. In *Toward a sociology of education* (pp. 374-386). Routledge.

[11] Gajda, A., Beghetto, R. A., & Karwowski, M. (2017). Exploring creative learning in the classroom: A multi-method approach. *Thinking Skills and Creativity, 24*, 250-267.

[12] Hand, B., Treagust, D. F., & Vance, K. (1997). Student perceptions of the social constructivist classroom. *Science education, 81*(5), 561-575.

[13] Hang, N. V. T., Bulte, A. M., & Pilot, A. (2020). Examining the Scientific Argumentation Implemented Through a Social Constructivism-Based Curriculum Designed for Primary Science Education in a Confucian Heritage Culture: A Case Study in Vietnam. *Rev. Eur. Stud., 12*, 64.

[14] Hằng, N. V. T., Meijer, M. R., Bulte, A. M., & Pilot, A. (2015). The implementation of a social constructivist approach in primary science education in Confucian heritage culture: the case of Vietnam. *Cultural Studies of Science Education, 10*, 665-693.

[15] Ho, F. M. (2018). Reforms in pedagogy and the Confucian tradition: looking below the surface. *Cultural Studies of Science Education, 13*(1), 133-145.

[16] Kalina, C., & Powell, K. (2009). Cognitive and social constructivism: Developing tools for an effective classroom. *Education, 130*(2), 241-250.

[17] Li, X. (2004). *An analysis of Chinese EFL learners' beliefs about the role of rote learning in vocabulary learning strategies* University of Sunderland].

[18] Li, X., & Chu, S. K. (2018). Using design-based research methodology to develop a pedagogy for teaching and learning of Chinese writing with wiki among Chinese upper primary school students. *Computers & Education, 126*, 359-375.

[19] Lin, J. (2019). From a lecturer to a researcher: a three-stage process of science teachers' professional development in mainland China. *Asia-Pacific Science Education, 5*(1), 1-15.

[20] Liu, S., Hallinger, P., & Feng, D. (2016). Learning-centered leadership and teacher learning in China: Does trust matter? *Journal of Educational Administration, 54*(6), 661-682.

[21] Montgomery, M. (2020). Culture, Community, and Constructivism: Exploring the Elements of a Successful Classroom.

[22] Muhammad, A. E. (2021). Social Constructivist Approach: Opinions of History Teachers at Intermediate Secondary Schools. *European Journal of Educational Research, 10*(3), 1423-1436.

[23] Mvududu, N., & Thiel-Burgess, J. (2012). Constructivism in practice: The case for English language learners. *International Journal of Education, 4*(3), 108-118.

[24] Ng, S. S., & Rao, N. (2008). Mathematics teaching during the early years in Hong Kong: A reflection of constructivism with Chinese characteristics? *Early Years, 28*(2), 159-172.

[25] Phillips, D. C. (2000). *Constructivism in Education: Opinions and Second Opinions on Controversial Issues. Ninety-Ninth Yearbook of the National Society for the Study of Education*. ERIC.

[26] Rannikmäe, M., Holbrook, J., & Soobard, R. (2020). Social Constructivism—Jerome Bruner. *Science education in theory and practice: An introductory guide to learning theory*, 259-275.

[27] Saleem, A., Kausar, H., & Deeba, F. (2021). Social constructivism: A new paradigm in teaching and learning environment. *Perennial journal of history, 2*(2), 403-421.

[28] Shah Ph, D., & Kumar, R. (2019). Effective constructivist teaching learning in the classroom. *Shah, RK (2019). Effective Constructivist Teaching Learning in the Classroom. Shanlax International Journal of Education, 7*(4), 1-13.

[29] Shah, R. K. (2019). Effective Social Constructivist Approach to Learning for Social Studies Classroom. *Journal of Pedagogical Research, 3*(2), 38-51.

[30] Tan, C. (2017). Constructivism and pedagogical reform in China: Issues and challenges. *Globalisation, Societies and Education, 15*(2), 238-247.

[31] Tan, C. (2020). Beyond high-stakes exam: A neo-Confucian educational programme and its contemporary implications. *Educational Philosophy and Theory, 52*(2), 137-148.

[32] Tao, Y., Oliver, M., & Venville, G. (2013). A comparison of approaches to the teaching and learning of science in Chinese and Australian elementary classrooms: Cultural and socioeconomic complexities. *Journal of research in science teaching, 50*(1), 33-61.

[33] van Hover, S., & Hicks, D. (2017). Social constructivism and student learning in social studies. *The Wiley handbook of social studies research*, 270-286.

[34] Vygotsky, L. S., & Cole, M. (1978). *Mind in society: Development of higher psychological processes*. Harvard university press.

[35] Wang, C. (2023). Resurgence of Confucian education in contemporary China: Parental involvement, moral anxiety, and the pedagogy of memorisation. *Journal of Moral Education, 52*(3), 325-342.

[36] Wang, D. (2011). The dilemma of time: Student-centered teaching in the rural classroom in China. *Teaching and Teacher Education, 27*(1), 157-164.

[37] Wang, S., & Zhang, D. (2018). Student-centred teaching, deep learning and self-reported ability improvement in higher ducation: Evidence from Mainland China. *Innovations in Education and Teaching International*.

[38] Wang, T. (2015). Contrived collegiality versus genuine collegiality: Demystifying professional learning communities in Chinese schools. *Compare: A Journal of Comparative and International Education, 45*(6), 908-930.

[39] Wang, X., & Wang, T. (2022). The mutability of pedagogical practice and space use: a case study of collaborative learning and classroom space in a Chinese primary school. *Compare: A Journal of Comparative and International Education, 52*(5), 729-747.

[40] Watkins, C. (2017). Developing learning-centred classrooms and schools. *Life in schools and classrooms: Past, present and future*, 407-419.

[41] Wu, Z. (2011). Interpretation, autonomy, and transformation: Chinese pedagogic discourse in a cross-cultural perspective. *Journal of Curriculum Studies, 43*(5), 569-590.

[42] Xudong, Z., & Li, J. (2020). Investigating 'collective individualism model of learning': From Chinese context of classroom culture. *Educational Philosophy and Theory, 52*(3), 270-283.