

Global Scientific and Academic Research Journal of Multidisciplinary Studies

ISSN: 2583-4088 (Online) Frequency: Monthly

Published By GSAR Publishers

Journal Homepage Link- https://gsarpublishers.com/journals-gsarjebm-home/



Exploring double reduction policy, social justice, equity-centered pedagogy, and whole person education for school effectiveness and student Outcome in China

\mathbf{BY}

Wei Zhang

Western Michigan University Teaching, Learning, and Educational Studies Education and Human Development College of Education Kalamazoo, MI 49008



Article History

Received: 08/08/2023 Accepted: 16/08/2023 Published: 17/08/2023

Vol - 2 Issue - 8

PP: - 01-13

Abstract

Education is to cultivate students for their lifelong learning and whole-person integrated growth through an equity-centered approach, social justice leadership, and educational policy implementation. This descriptive qualitative study explores how principals investigate the double reduction policy, social justice theory, and equity-centered pedagogy for school effectiveness and student outcome in leading China's educational reform. A total of 24 participants of Chinese principals (N=24) were employed in this study. There are twelve female (N=12) and twelve male (N=12) principals from the five cram schools (N=5), twelve private schools (N=12), and seven public schools (N=7) in China. Finding shows that Chinese principals face three challenges, including (1) difficulty in providing individual learning; (2) deficiency of enough educational resource; and (3) difficulty in cooperation between parents and schools. This study also found that double reduction has three major benefits, including (1) promoting holistic student growth; (2) reducing family and student burden; and (3) a human-oriented approach. This study discovered that Chinese principals have three major strategies, including (1) professional development; (2) collaboration; and (3) rebuilding new college admission criteria and standards. Future studies were recommended.

Keywords: Double reduction, Equity, Holistic Education, Principals, Qualitative, Social Justice

Introduction

Education is cultivating students for lifelong learning and whole-person integrated growth through an equity-centered approach, social justice leadership, and educational policy implementation (Zhang, 2023a). Although Suzhi education in China has been issued and promoted since 1995, China education still emphasizes using score-driven teaching for students' academic performance and neglects Suzhi education (Pang et al., 2020; Zhang, 2023b). Suzhi means the quality of education, holistic education, or whole-person education. For example, Pang et al. (2022) indicated that Suzhi refers to the relatively stable quality structure because one's knowledge internalization is based on inherent gifts and physiology and is deeply influenced by their education experience and social environment. Sushi refers to values, cultural cultivation, physical and psychological quality, wisdom, and abilities (Pang et al., 2022; Zhang, 2023c).

In addition, Chinese parents prize education because school grades play a critical role in deciding employment prospects. In the highly competitive college admission exam system (gaokao in Chinese), for instance, a comprehensive grading

generally includes tests of Chinese literature, mathematics, and English, as well as tests of history, politics, and geography for liberal arts majors and examinations of physics, chemistry, and biology for science majors (Zhang, 2023d). As a result, many parents, particularly those from high-income households, feel compelled to enroll their children in private tutoring to improve their academic performance. Chinese school-aged children drown in private tutoring sessions every year (Liu et al., 2023; Zhang, 2022a). For example, Jin and Sun (2022) discovered that parents invested in their children in tutoring; 38.9% chose less than 5,000 RMB, 38% chose the middle of 5,000-10,000 RMB, and 23.1% chose 10,000s or more. Zhang (2020a) stated that students must spend 3 to 4 hours after daily class hours from 7:30 to 10:30 pm, Monday to Friday, to complete their homework assignments. On weekends, they usually study in private tutoring centers for whole days to raise their test scores (Zhang, 2022b).

Consequently, education equity, quality, and burden reduction have brought new challenges to education governance in a multi-dimensional social-cultural context in China. As a result, The State Council, the General Offices of the CPC Central Committee issued a double reduction policy on July 24, 2021 (Xue & Li, 2022; Zhang, 2022c). It has two primary goals of reducing students' homework burden and off-campus tutoring burden. Xue and Li (2022) claimed that the double reduction policy advocates student-centered, quality-based, home-school cooperative education in leading China school reform. Zhang, Zhao, and Zhou (2022) said this policy expects to cultivate student talents with all-around development of virtue, intelligence, physical condition, mind status, community service, and social-emotional capacity. Yang et al. (2023) said that the double reduction policy expects to reduce the dual burden for students of on-campus classes and off-campus tutoring to provide quality education for holistic growth.

Liu et al. (2023) claimed that the double reduction policy radically transformed the Chinese education market. For example, the New Oriental Education & Technology Group, a NASDAQ-listed Chinese private tutoring company, saw its share price decline by 54.2% in a single day immediately following the policy's announcement. One year after the announcement of the policy, the Ministry of Education reported that the number of private tutoring institutions in traditional academic subjects had been dramatically reduced, with the proposed of offline institutions decreased by 95.6% and the proportion of online institutions decreased by 87.1% (Zhang, 2021a).

In addition, Wang et al. (2022), in their survey of 28,398 elementary and junior high school students, discovered that Chinese principals could effectively explore double reduction to improve students' mental and emotional conditions through having more sleep hours, enjoying more after-class activities and personal interest activities, and chatting with their friends for student holistic growth. Zhou (2022) claimed that the double reduction policy helps educational leaders to create a good learning environment for students' holistic development. Kun and Lingchun (2022) stated that the double reduction policy allows educators to improve the learning quality of primary and secondary school students.

However, few studies realized that China education causes social justice, inequality, and equity and calls for educational reform in China. However, from the principals' perspectives, no studies are aligned with the double reduction policy for equity-centered pedagogy, social justice, and whole-person education. For example, Lu et al. (2023) indicated that current tutoring education causes inequality among high-income and low-income students. They said that most families must spend significant money on tutoring each year to increase their children's academic test scores. The China government is aware that business-oriented education in China leads to educational inequality and erodes social justice (Zhang, 2021b). As for this view, education must promote equal educational opportunities for all students, no matter where they are. Also, education needs to promote social justice and equity for school sustainability (Zhang, 2021c). Specifically, this study would contribute to how principals, teachers, staff, parents, students, and other stakeholders advocate students' overall moral, intellectual, emotional, social, and spiritual integrated growth (Zhang, 2021d). Also, this study could fill

in the literature gap for principals to advocate whole-person education reform.

Therefore, this descriptive qualitative study explores how principals investigate the double reduction policy, social justice theory, and equity-centered pedagogy for school effectiveness and student outcome in leading China's educational reform. The research questions are as follows:

- 1. What challenges do the principals face while investigating the double reduction policy in China?
- 2. What benefits do the double reduction policy bring to China's educational reform?
- 3. What strategies do the principals use for school reform advocating social justice, equity-centered pedagogy, and whole-person education?

Methodology

Overview Research Design

The descriptive qualitative inquiry was employed in this study for Chinese principals to investigate how they explore and interpret the double reduction policy to advocate social justice, equity-centered pedagogy, and whole-person education reform in China. The descriptive qualitative inquiry analyzes and explores the principals' personal experiences on how they experience, investigate, and explore their viewings, beliefs, and values in leading China school reform. Doyle et al. (2020) stated that the descriptive qualitative study generates data to describe the "who, what, and where of events or experiences" from principals' perspectives. Kim et al. (2017) study inspires me to investigate how using descriptive qualitative study could help principals to develop and refine pedagogical intervention for student-integrated growth. Crossman & Bordia (2021) supported their view and inspired me to investigate how Chinese principals explore the double reduction policy to discover challenges and opportunities for school reform. Jackson and Mazzei's (2022) study inspired me to recognize that using descriptive qualitative study is suitable in this study for principals to investigate how they could promote social justice, equitycentered pedagogy, and whole-person education reform in China. Specifically, using descriptive qualitative research design is appropriate in this study for Chinese principals to discover how the double reduction policy brings challenges and opportunities for Chinese principals in leading Chinese school reform contextually in China (Bogdan & Biklen, 2007; Crotty, 1998; Creswell & Poth, 2018; Silverman, 2013; Zhang, 2021f).

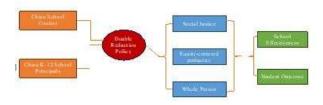
Since this study aims to discover how double reduction policy calls for social justice, equity, and holistic quality of education reform in China, I used descriptive, interpretative, and critical analysis to emerge major themes and categories. The descriptive analysis helps me to describe how Chinese principals explore their experiences of responding to the double reduction policy and what strategies they think of in leading their school implementation and sustainable development (Denzin & Lincoln, 2018; Flick, 2014; Lincoln & Guba, 1985; Zhang, 2021e). The interpretative analysis contextualizes the principals' experiences in the depth of

responding to their challenges from the double reduction policy and calling them for school reform (Tai, 2023; Smith, Flower, & Larkin, 2022; Zhang, 2020a). The critical analysis is to guide me to contextualize how the double reduction policy calls for educational reform and advocates social justice, equity, and whole-person education reform in China (Ibsen, 2023; Spratt, 2017; Winkle-Wagner, Lee-Johnson, & Gaskew, 2019; Zhang, 2020b).

Conceptual Framework

Figure 1 shows that Chinese principals in this study explore social justice, equity-centered pedagogy, and whole-person education aligned with the double reduction policy for school effectiveness and student outcomes. Rawls (1971) defined social justice as maximizing the worth of equal liberty and service for all citizens. Social justice concepts help Chinese principals to create a student-centered focus for student success through three steps, including "(1) identify desired results, (2) determine acceptable evidence, and (3) plan learning experiences and instruction" (Watts & Hodgson, 2019, p.194; Zhang, 2020b). Angelle and Torrance (2019) indicated that principals need to promote social justice contextually for school implementation. Parson and Ozaki (2020) stated that educators must promote social justice and equity in teaching and learning. Their viewing guides me to explore about the double reduction policy impacts Chinese principals in leading their school reform.

Figure 1: Conceptual Framework in this Study



In addition, this study uses equity-centered pedagogy for Chinese principals to drive school improvement. Xue and Li (2022) stated that a double reduction policy gives chances to all the students who have the right to receive equity in education. Specifically, equity-centered pedagogy means that Chinese principals need to work with teachers to support all the students in the same manner through the same standards. Jones and Burrell (2022) indicated that equity-centered curriculum and pedagogy could help Chinese principals work with teachers contextualizing the course contents for student success and school development. They also suggested that equity could help Chinese principals to make meaningful connections among family, school, and all school stakeholders. Hughes (2022) stated that equity has four dimensions: the critical axis of power and identity and the dominant axis of access and achievement. These thoughts guide Chinese principals in exploring their viewings aligning with the double reduction policy in the Chinese school context.

Finally, the double reduction policy inspires Chinese principals to explore whole-person education for student outcomes and school effectiveness. Chan and Chan (2022) stated that whole-person education means that Chinese principals need to work with teachers, parents, and all other school stakeholders to foster students developing their social, emotional, spiritual, healthy, behavioral, and academic integrated growth for student lifelong learning. Therefore, the above concepts guide this study for school effectiveness and student outcomes.

Participants

A total of 24 participants of Chinese principals (N=24) were employed in this study. There are twelve female (N=12) and twelve male (N=12) principals from the five cram schools (N=5), twelve private schools (N=12), and seven public schools (N=7) in China, shown in Table 1. The age of the Chinese principals ranges from 26 to 60 years old. All participating principals have teaching experiences ranging from 2 to 17 years and principalship experiences ranging from 1 to 11 years. The selected principals' criteria are at least one year of administration experience working at either cram, private, or public schools in China. All names of the principals in this study are pseudonyms.

Table 1
Overview of the Participating Principals

Principal	Gender	Age	Academic Qualification	Years in Teaching	Years in Principalship	School Type
Ignatius	M	26	BA	3	2	Cram
Robert	M	35	Ed.S.	7	3	Private
Andrew	M	46	BS	12	8	Public
Edmund	M	55	MA	10	9	Public
Paul	M	37	BA	3	7	Private
Thomas	M	60	Ph.D.	12	11	Public
Francis	M	39	MA	6	5	Private
James	M	28	BA	2	1	Cram

Stephen M 47 MS 10 11 Public Joseph M 36 MA 5 4 Private David M 33 BS 6 3 Public Alberto M 38 BA 7 6 Private Adele F 28 BS 3 1 Cram Alice F 31 MA 3 1 Private Amy F 29 BS 4 1 Cram Barbara F 32 BA 5 2 Private Camille F 39 MA 7 5 Public Catherine F 43 MS 10 5 Private Charity F 56 Ph.D. 10 8 Private Daniela F 49 MA 11 9 Private Edith F <td< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<>							
David M 33 BS 6 3 Public Alberto M 38 BA 7 6 Private Adele F 28 BS 3 1 Cram Alice F 31 MA 3 1 Private Amy F 29 BS 4 1 Cram Barbara F 32 BA 5 2 Private Camille F 39 MA 7 5 Public Catherine F 43 MS 10 5 Private Charity F 56 Ph.D. 10 8 Private Daniela F 49 MA 11 9 Private Edith F 57 BS 17 10 Public Erica F 38 BA 7 5 Cram	Stephen	M	47	MS	10	11	Public
Alberto M 38 BA 7 6 Private Adele F 28 BS 3 1 Cram Alice F 31 MA 3 1 Private Amy F 29 BS 4 1 Cram Barbara F 32 BA 5 2 Private Camille F 39 MA 7 5 Public Catherine F 43 MS 10 5 Private Charity F 56 Ph.D. 10 8 Private Daniela F 49 MA 11 9 Private Edith F 57 BS 17 10 Public Erica F 38 BA 7 5 Cram	Joseph	M	36	MA	5	4	Private
Adele F 28 BS 3 1 Cram Alice F 31 MA 3 1 Private Amy F 29 BS 4 1 Cram Barbara F 32 BA 5 2 Private Camille F 39 MA 7 5 Public Catherine F 43 MS 10 5 Private Charity F 56 Ph.D. 10 8 Private Daniela F 49 MA 11 9 Private Edith F 57 BS 17 10 Public Erica F 38 BA 7 5 Cram	David	M	33	BS	6	3	Public
Alice F 31 MA 3 1 Private Amy F 29 BS 4 1 Cram Barbara F 32 BA 5 2 Private Camille F 39 MA 7 5 Public Catherine F 43 MS 10 5 Private Charity F 56 Ph.D. 10 8 Private Daniela F 49 MA 11 9 Private Edith F 57 BS 17 10 Public Erica F 38 BA 7 5 Cram	Alberto	M	38	BA	7	6	Private
Amy F 29 BS 4 1 Cram Barbara F 32 BA 5 2 Private Camille F 39 MA 7 5 Public Catherine F 43 MS 10 5 Private Charity F 56 Ph.D. 10 8 Private Daniela F 49 MA 11 9 Private Edith F 57 BS 17 10 Public Erica F 38 BA 7 5 Cram	Adele	F	28	BS	3	1	Cram
Barbara F 32 BA 5 2 Private Camille F 39 MA 7 5 Public Catherine F 43 MS 10 5 Private Charity F 56 Ph.D. 10 8 Private Daniela F 49 MA 11 9 Private Edith F 57 BS 17 10 Public Erica F 38 BA 7 5 Cram	Alice	F	31	MA	3	1	Private
CamilleF39MA75PublicCatherineF43MS105PrivateCharityF56Ph.D.108PrivateDanielaF49MA119PrivateEdithF57BS1710PublicEricaF38BA75Cram	Amy	F	29	BS	4	1	Cram
CatherineF43MS105PrivateCharityF56Ph.D.108PrivateDanielaF49MA119PrivateEdithF57BS1710PublicEricaF38BA75Cram	Barbara	F	32	BA	5	2	Private
CharityF56Ph.D.108PrivateDanielaF49MA119PrivateEdithF57BS1710PublicEricaF38BA75Cram	Camille	F	39	MA	7	5	Public
DanielaF49MA119PrivateEdithF57BS1710PublicEricaF38BA75Cram	Catherine	F	43	MS	10	5	Private
EdithF57BS1710PublicEricaF38BA75Cram	Charity	F	56	Ph.D.	10	8	Private
Erica F 38 BA 7 5 Cram	Daniela	F	49	MA	11	9	Private
	Edith	F	57	BS	17	10	Public
	Erica	F	38	BA	7	5	Cram
Faith F 48 BS 12 9 Private	Faith	F	48	BS	12	9	Private
Grace F 59 Ph.D. 10 10 Private	Grace	F	59	Ph.D.	10	10	Private

Data collection, Analysis, and Trustworthiness

Once ethical approval was granted, individual semi-structured and open-ended interviews were employed in this study. The purposive and snowball sampling was used to collect the data from Chinese principals through Zoom, Tencent, or WeChat, a social medial platform like Facebook or Twitter. I created the semi-structured protocol interview questions shown in Table 2 based on the previous literature about double reduction policy, social justice, equity-centered pedagogy, and whole-person education and principalship (Angelle & Torrance, 2019; Coutinho, 2022; Parson & Ozaki, 2020; Strunk & Locke, 2019; Zhang, 2020c). Specifically, I interviewed Chinese K-12 school principals remotely from April 2022 to May 2023. The average time of the interview is about 65 minutes, and the most extended interview is about 150 minutes.

Table 2
Sample interview questions

No.	Sample Interview Question
Q1	What is your educational background, teaching, and principalship leadership experiences?
Q2	What are your big challenges and strategies in your leadership role?
Q3	What challenges do you face while you promote double reduction policy in your school?
Q4	What are your personal opinions about double reduction policy?
Q5	How would you think that double reduction could bring to your school?
Q6	How do you understand the relationship between double reduction policy and social justice in schooling?
Q7	How do you understand the relationship between double reduction policy and equity-centered pedagogy?
Q8	How do you understand the relationship between double reduction policy and whole-person education?
Q 9	What strategies do you use to advocate social justice, equity-centered pedagogy, and whole-person
Q10	education reform?
Q11	Is there anything that I have not asked that you are willing to share them with me?
Q12	

The descriptive, interpretative, and critical analysis approaches were employed to emerge the major themes and categories aligned with the research questions. Also, I used the iterative process to analyze the transcripts and identified

major themes by examining the transcripts, analytic memos, and reflective logs using the two coding cycles. In the first cycle, I code the interview conversation line by line after uploading the transcripts to the qualitative analysis software

Nvivo 12. Then, I used the descriptive, interpretative, and critical analysis approach to emerge the major themes and categories per research questions. In the second cycle, I finalized the major themes and categories per research questions through interaction, analytical memos, and journal logs. Besides, I used the four major steps to code, analyze, and emerge major themes and categories aligned with the research questions. The four steps are:

- 1) I uploaded the interview transcripts in the NVivo12.
- 2) I read the interview transcripts using the thematic analysis framework with line-by-line coding.
- I created the categories by analyzing the code using descriptive, interpretative, and critical analysis approaches.
- I emerged the major themes through interaction and analytical memos associated with answering my research questions in this study.

Finally, I used the member check, reflective logs, and audit trails to ensure my study was reliable and trustworthy (Flick, 2014). Also, I invited one of the doctoral qualitative researchers to ensure that all materials were audited, and my

data was clear and accurate. I followed the qualitative research process and disciplines to ensure my study was trustworthy and consistent (Denzin & Lincoln, 2018; Zhang, 2020c).

Results

I accordingly presented the major themes and categories aligned with each research question in this study.

Research Question 1: What challenges do the principals face while investigating the double reduction policy in China?

Three major themes emerged to answer the first research question and determine what challenges Chinese principals face due to the double reduction policy and China's social-cultural school contexts. The three major themes are:

- 1. Difficulty in providing individual learning.
- 2. Deficiency of enough educational resources.
- Difficulty in cooperation between parents and schools.

Therefore, I presented the themes associated with the categories shown in Table 3.

Table 3
Major Themes and Categories of Educational Challenges that Principals Investigate the Double Reduction Policy with Code
Frequencies

Major Themes	Categories	Samples of Codes Frequencies Selected
Theme 1: Difficulty in Providing Individual learning	Collective culture and school outcomes	Some student's success (10), not all students (7), collective culture (15), school performance (6)
	High college admission rate	College admission (17), test score (15)
	Lack highly qualified professional teachers	Teacher qualification (15), need more professional teachers (3), professional teachers (7)
Theme 2: Deficiency of Enough Educational Resources	Limited faculty	Limited faculty (8), faculty (12), teachers (17)
	School has no extra funding	Poor (6), funding (13), limited funding (15)
	Limited facilities	Facility (13), playground needed (5), advanced technologies needed (6), more buildings (3)
Theme 3: Difficulty in Cooperation between Parents and Schools	Schools seek high test score performance	High test score (8), score (18), exam results (6), student performance (3)
	Parents believe score is the key for college entrance	College entrance (8), score is a key (3)
	A gap between parents and schools such as without communication	Miscommunication (8), gap between parents and schools (6), no channel between school and parents regularly (3)

Table 3 shows that Chinese principals face three major challenges while they respond to the double reduction policy in this study. First, Chinese principals struggle to provide equal support for students learning under China school collective culture. The collective culture means that school leaders usually pay attention to some students who can pass the exam and receive their top university admission letter.

Once some students receive the top universities, such as Peking University, and Harvard University, the school will be highly recognized and become famous. With this condition in mind, Chinese school principals usually pay less attention to students' individual learning needs. Nine out of twenty-four principals in this study stated that China school principals have difficulty offering individual learning for student-integrated growth. I selected quotes from them to support the findings below.

Andrew said: "In my school, I do not have time to pay attention to the student's learning needs. Although the double reduction policy aims to reduce students' and family burden, I would like to say that the double reduction policy gives me more burdens, such as how I could implement individual learning teaching and learning plan, especially after-school activities."

Edmund indicated: "I would like to say that the double reduction policy makes me have difficulty in getting more teachers with a lower cost to lead the after-school activities."

David said: "I feel very hard to find teachers to help with after-school activities. Also, I would like to say most of the teachers are not qualified to handle activities such as martial arts."

Alberto claimed: "I, together with my staff and teachers in my school, would like to say that the double reduction policy requires me to implement the current curriculum, pedagogy, and assessment. However, I think it is challenging to offer individual learning."

Francis said: "I, as a private school principal, need to revise the teaching curriculum, textbook, and materials that my school often uses for individual student needs. However, the double reduction policy requires me to revise the current curriculum."

Adele indicated: "As a cram school principal, I often offer individual student needs training. However, the double reduction policy causes me to have difficulty getting new students."

Camille said: "I cannot ask for more workload from my school teachers because their salary is usually lower than other school districts. So, I need to hire part-time teachers to offer after-class activities to the students. However, my school has limited funding."

Edith indicated: "My school could not offer all the courses students expect. For example, my school has no school counselors, psychologists, or social workers. Most of my teachers are not qualified to help students balance their learning challenges and daily life."

Grace said: "Since my school is a private profit-oriented, the student's college entrance rate is a top priority. Without a high college acceptance rate, my school cannot get more knowledgeable students for sustainable growth. Therefore, we must ensure that at least 10% of the grade 12 students receive college admission letters from the top 100 universities in the world ranking."

Those quotes above show that Chinese principals recognized that they have difficulty emphasizing individual learning. It is because they need to maintain the high possibility of college acceptance admission rate for school sustainable growth.

Second, Chinese principals need to seek more resources to help students while they respond to the double reduction policy because their schools have limited faculty, facilities, and funding. Five principals in this study stated that Chinese principals face the challenges of seeking more resources for school implementation. I selected quotes from them to support this view.

Ignatius said: "As a cram school principal, I realize that my school could not hire highly professional teachers because I could not offer a high salary and benefits. Instead, the human resource director and I hire new teachers with lower wages."

Robert indicated: "I realize that my school has no extra funds for teacher professional training and buying advanced technology for school use."

Paul claimed: "I recognize that my school needs to spend more to hire teachers and implement the school curriculum, pedagogy, and textbook."

Stephen said: "I feel so tired of looking for extra resources to manage after-school activities."

Faith indicated: "I would like to say that my school needs to spend more to rent some facilities such as a swimming pool for students who like to learn how to swim after school."

Those quotes show that Chinese principals realize that they need to find more resources to offer support for students after-school activities. Although they claimed that the double reduction policy causes them to have difficulty serving students effectively, they try their best to figure out new approaches to make school progressive growth and help students to achieve their learning goals.

Third, Chinese principals realize that they have difficulty seamlessly collaborating with parents, staff, students, and other school stakeholders while they reflect on the effect of the double reduction policy. Four of the twenty-four principals in this study have difficulty communicating with parents, staff, students, and other stakeholders. I selected some quotes from them to support this viewing.

Joseph said: "I feel that I, with my teachers, have less chance to talk with parents. It is because they want to see their children's academic performance."

Thomas claimed: "I realize my school needs to set up communication channels between school and parents, such as tea parties. We usually did not communicate with parents individually only if their children make a big issue at school."

Catherine believed: "School principals must regularly meet with students, parents, staff, and teachers. However, I often neglect it and have less chance to talk with my parents."

Daniela stated: "I would like to say that principals must chat with parents and students to let them understand how they need to work with the school for students' high performance."

Therefore, my study found that Chinese principals face the three significant challenges that I described above. Besides, Chinese principals need to discover what benefits the double reduction policy brings to the school and to serve the students in research question 2, explored.

Research Question 2: What benefits does the double reduction policy bring to China's educational reform?

Three major themes emerged to answer research question 2 associated with three categories for each of the significant themes discovered about the primary benefits principals receive from this study's double reduction policy. The three major benefits are (1) promoting student holistic growth; (2) reducing family and student burden; and (3) a human-oriented approach. Therefore, I presented the themes associated with the categories in Table 4 below.

Table 4

Major Themes and Categories of Benefits for Principals that Double Reduction Bring to China Educational Reform with Code

Frequencies

Major Themes	Categories	Samples of Codes Frequencies Selected
Theme 1: Promoting Student holistic growth	Learning Community	Professional community (10), learning community (5), community (16)
	Student holistic development and growth	Holistic development (8), growth (6), whole (8)
	Education core value-based education	Trust (9), caring (6), love (7), cooperation (6), core value (3)
Theme 2: Reducing Family and Student burden	Students have more time to discover their talents and skills	Talents (10), skills (9), self-discovery (6), students need more time (5), too much homework (6), no time (3)
	Families have less burden such as paying high tuition	Too much tuition (6), expensive cost (3), paying high tuition (3)
	Having more family time and union	Students need more time with parents (5), family time (6), school-family union (3)
Theme 3: A human-oriented Approach	Promoting equity-centered pedagogy	Equity (10), equity-centered approach (6), equal treatment (5)
	Test score is not the goal of education	Test score is the goal (3), learning to know self (2)
	Promoting social justice, whole person curriculum	Social justice (7), whole person (5), fair service (3)

Table 4 shows that Chinese principals found that the double reduction policy brings three major benefits to drive school reform and serve students. First, Chinese principals realize that the double reduction policy makes them figure out how to promote holistic education. Four principals stated their viewings with the selected quotes below.

James said: "I would like to say that the double reduction policy requires my school to offer after-class activities if needed. I think this is an opportunity to foster student creativity, critical thinking, trust, and other core value in education for students."

Alice said, "My school needs to revise the curriculum aligned with the double reduction policy required and promote whole-person education."

Amy said: "I must give up the subject testing intensive training such as math and physic. Instead, I must create arts and some humanistic curriculum for students."

Barbara indicated: "I think creating a learning community is important for students to discover their talents, skills, and interest."

Those quotes above show that Chinese principals believe the double reduction policy makes them revise curriculum, pedagogy, and materials to emphasize holistic education.

Second, Chinese principals assert that the double reduction policy reduces parents' and students' burdens. Three principals supported this viewing with selected quotes below.

Erica said: "Double reduction policy makes her schools have difficulty getting more new students."

The charity said: "I think double reduction policy at least gives a chance to parents, teachers, students, and all other educators to think about what the education should be."

Daniela said, "Students need more time to discover their talents. With this viewing, I think the double reduction policy calls for school reform."

Those quotes from them indicate that education in China needs to be reformed and reduce students' learning burdens, such as homework and parents' financial burden.

Third, Chinese principals in this study discovered that school needs to promote human-oriented pedagogy instead of examoriented teaching. Four principals support this viewing with selected quotes below.

Edmund said: "I realize that the exam-oriented educational approach misleads education and limited students' talents and interest building."

Joseph said: "Education needs to use human-oriented pedagogy for students' social, emotional, cultural, and intelligent development."

Camille said: "I think human-oriented education could promote whole person, social justice, and equity education."

Faith said: "Education is to help students to discover their talents through daily reflection and human care."

Those quotes above show that Chinese principals investigating the double reduction policy give them a chance to reconsider how to promote social justice, equity-centered pedagogy, and whole-person education. Also, the double reduction policy allows them to implement the current school system and help students have an integrated learning outcome.

Research Question 3: What strategies do the principals use for school reform advocating social justice, equity-centered pedagogy, and whole-person education?

To answer research question 3, I emerged three major practical strategies for Chinese principals to improve their schools and to advocate social justice, equity-centered, and whole-person education reform, as shown in Table 5.

Table 5

Major Strategies that Principals advocate Social Justice, Equity-centered Pedagogy, and Whole Person Education with Code
Frequencies

Major Themes	Categories	Samples of Codes Frequencies Selected
Theme 1: Improving Teaching Quality for Student integrated growth	Providing professional Development program	Professional development (6), teacher training (6), teacher qualification (3) quality (10)
	Class Observation and Feedback	Comments (8), feedback (6), observation (5), chat (7), talk (6)
	Teacher Assessment and Performance Check	Teacher evaluation (7), assessment (9), teacher assessment (3), performance check (6)
Theme 2: Helping students Success through collaboration between school and parents	Cooperation between schools and parents	Working together (6), collaboration (5), parent-school collaboration (3)
	Cooperation between students and teachers	Working together between students and teachers (3), each other (3)
	Cooperation between teachers, parents, students, and all other staff	Sharing information (5), cooperation (12)
Theme 3: Rebuilding a new College Entrance Criteria and standards	Integrated the current college entrance system-Gaokao	College entrance system (3), gaokao (15), requirements (8)
	College entrance criteria and standards' implementation and systematic evaluation	Implementation (12), revised plan (5), systematic evaluation (5), common core standards (6)
	K-12 school-to-college transition program	Transition (10), transition program (6), college transition (4), pathway (6), from high school to college preparation (5)

Table 5 above shows that Chinese principals could use three major strategies to promote social justice, equity-centered pedagogy, and whole-person education reform. First, Chinese principals need to improve teaching quality for student

learning outcomes. Eight principals supported this viewing with the quotes selected below.

Robert, Edmund, and Edith said: "Chinese school needs to provide a higher quality of teaching for students' lifelong learning aside from test score."

Joseph said: "I think principals need to give feedback to the teachers through their classroom observation and teacher conferences to deliver a high quality of teaching."

Alberto said: "I think schools must offer high-quality teaching for students' success."

The charity said: "I think quality in teaching is the priority for school development and student learning outcome."

Erica said: "Quality in teaching is essential for the cramming school to get more students."

Camille said: "If the schools could help students reach their learning goals through high-quality teaching, students do not need to go to cramming school for their test scores."

Those quotes above show that Chinese principals need to make sure through classroom observation, teacher professional programs, and assessments to help students reach their learning goals.

Second, Chinese principals realized that the double reduction policy gives them to have a chance to make school reform through collaboration with parents and students. Five principals in this study supported this viewing with selected quotes below.

Edmund said: "Collaboration, commitment, and engagement are important for school development and student involvement and success."

James said, "Principals and teachers need to communicate with parents and students for school outcomes regularly."

Erica said: "I think the double reduction policy makes me realize the importance of parents, students, and teachers' commitment and engagement."

Grace said: "Collaboration is crucial for me to make school progress and get more information from parents, students, and teachers."

Those quotes above show that the double reduction policy makes principals realize the importance of collaboration among students, parents, staff, teachers, and other stakeholders for school effectiveness and student outcomes.

Third, Chinese principals advocate that China schools must rebuild college entrance standards and criteria by reflecting on the double reduction policy for China school reform. Five principals supported this finding with selected quotes below.

Ignatius said: "I think gaokao causes many problems. I want to say college needs to rebuild its criteria of selecting the qualified college candidate aside from test scores."

David said: "I think the high school needs to create some pathway college transition program for students to discover their life goal for their lifelong learning."

Barbara said: "I would want to say that double reduction policy could foster social justice, equity-centered pedagogy, and whole person education only if college admission criteria and standards could be implemented."

Charity said: "I think high school principals, together with teachers, need to make parents and students understand education is not just for a high-test score but for lifelong learning and capacity-building."

Daniela said: "I suggest that the college needs to rebuild its standards and assessments to select the potential college candidates, not just using test scores."

Those quotes show that Chinese principals realize that the double reduction policy inspires them to figure out strategies to promote social justice and equity-centered and whole-person education reform in China. Therefore, the double reduction policy allows school principals, teachers, parents, students, and all other educational stakeholders to figure out new approaches for student-integrated growth and effectiveness.

Discussion, Conclusion, and Recommendation for Future Study

Discussion

Three significant findings in this study were discussed. First, Chinese principals face similar challenges of providing individual learning for students' academic, emotional, social, and psychologically integrated growth. Although the double reduction policy requires the school to offer after-school activities, the school could not highly hire professionals to foster students' lifelong learning and personal interest because of limited funding. This finding is compatible with the previous studies. For example, Yang et al. (2023) indicated that the double reduction policy calls for principals to offer students individual learning. Liu and Wang (2022) stated that double reduction gives more time to the students for their interest building and makes the school figure out new ways to help students to develop their personality. Zhou (2022) said that Chinese principals must meet individual students' needs. Goldberg et al. (2023) emphasized that education cultivates students' unique talents and develops their interest in lifelong

However, Zhu and Li (2020) confirmed that Chinese principals have difficulty paying much attention to the individual students' needs for their holistic growth because of the unique collective culture in China's social-cultural contexts. Peters et al. (2020) expressed that Chinese collective intelligence makes principals have difficulty taking care of individual students. Collective intelligence means that some students pass the exam with the highest test score and receive the top college admission letter, which symbolizes the school's top student and could cultivate top students (Zhang, 2020d). It means that all students are top once they study in the school. Therefore, Chinese principals tend to pay too much attention to individual learning.

Second, this study found that Chinese principals must advocate social justice, equity-centered pedagogy, and wholeperson education through curriculum, teacher professional learning, and community practice. Although the previous study emphasized that school needs to provide a high quality of education for students holistic development, school principals, together with teachers, parents, and students, tend to use the exam-oriented teaching approach for students to pass the exam with the highest test score and to receive a top college admission letter (Zhang, 2020e). For example, principals Edmund, James, David, Charity, Edith, and Grace indicated that the double reduction policy makes them think about how they could help students to develop their whole-person abilities. They also advocate that Chinese school needs to promote social justice, equity-centered and whole-person education.

For example, Nesoff (2022) suggested that principals need to create a human-oriented program to foster students to build their mindset of social justice in serving. Ginsberg (2022) claimed that Chinese principals must advocate social justice, equity-based education, and whole-person education in leading school reform and responding to the double reduction expectation. Torrance et al. (2021) inspired me to realize that Chinese principals need to work with parents, students, and teachers to build a learning community for student capacity-building and school effectiveness. Besides, this study suggested that Chinese principals must collaborate with all school stakeholders, such as teachers, parents, students, and staff, for equity and social justice promotion.

Third, this study found that Chinese principals must implement the current exam-oriented system for students' holistic development and lifelong learning. Double reduction calls for educational reform and emphasizes Suzhi education for school effectiveness and student success (Zhang, 2020f). For example, Principal Edith indicated that principals, teachers, students, and parents usually emphasize the test results and believe that a high test score is a better chance for students to receive a better college admission letter. With this view, this study suggested that Chinese principals must promote Suzhi education aligned with exam-oriented education. Finding in this study, through reflection on the double reduction, stated that Chinese principals need to make parents and students discover the core value of education and realize that education is not just for test scores but for lifelong learning. Several scholars support this view. For example, Ketko, Bor, and Arar (2023) claimed that education needs to foster students' creative, critical, and problem-solving capacities. Chen (2017) stated that education needs to facilitate students to develop their citizenship in serving their community. Robinson et al. (2022) claimed that Chinese principals must make parents and students understand that education is not just for test scores but for being a global citizen. Therefore, this study suggests that Chinese principals must advocate for parents, students, teachers, and other school stakeholders, emphasizing exam-oriented education less. Instead, social justice, equity-centered, and whole-person education should be promoted.

Conclusion

Three significant findings could be concluded. First, Chinese principals must promote social justice, equity-centered and whole-person education in leading school development and student success. Double reduction allows Chinese principals to figure out how to promote holistic education for students' whole-person growth. Second, Chinese principals need to regularly communicate with parents, students, teachers, staff, and other school stakeholders to receive their support in promoting social justice and core value education. Chinese principals have less chance to work with parents and students for school reform and student success. For example, Zhang (2020g) indicated that parents want to have an informal conversation with their children's school principals but have no chance. As for this viewing, this study suggests that examoriented teaching should be abandoned, and the college's criteria and standards select potential candidates that should not only rely on test scores. Therefore, this study gives future scholars and practitioners a clue to promote social justice, equity, whole person, and holistic education for school reform.

Limitations of the study

This study has three limitations. One is that I only interview principals and analyze their voices. Another is that I could not have the chance to conduct one-on-one in-person interviews. The other is that findings could give a clue to other school scholars working on research and school evaluation for their performance. However, results could not be generalized to all the school contents.

Recommendation for future study

Two future research topics are recommended. First, the purpose of the basic qualitative inquiry aims to explore the viewings of principals (N=12), teachers (N=12), parents (N=12), students (N=12), superintendent (N=12), and staff (N=12) through interviewing for school reform in China. Second, this grounded theory explores how Chinese principals (N=48) investigate an equity-centered approach to student achievement and school effectiveness by interviewing and creating a transition college framework for student preparation.

REFERENCES

- 1. Angelle, P.S., & Torrance, D. (2019). *Cultures of social justice leadership: an intercultural context of schools*. Switzerland: Palgrave Macmillan.
- 2. Bogdan, R.C. & Biklen, S.K. (2007). *Qualitative research for education: an introduction to theory and methods* (5th ed). New York, NY: Person.
- 3. Crotty, M. (1998). The foundations of social research: meaning and perspective in the research process. Los Angeles, CA: Sage.
- 4. Chen, L. (2017). *The core values of Chinese civilization*. Singapore: Springer
- Chan, B.S.B., & Chan, V.C.M. (2022). Whole person education in East Asian universities:

- Perspectives from philosophy and beyond. New York, NY: Routledge.
- 6. Coutinho, A.M.J. (2022). Curriculum work and social justice leadership in a post-reconceptualist era. New York, NY: Routledge.
- Crossman, J. & Bordia, S. (2021). Handbook of qualitative research methodologies in workplace contexts. Northampton, MA: Edward Elgar Publishing.
- 8. Creswell, J.W., & Poth, C.N. (2018). *Qualitative inquiry & research design: choosing among five approaches* (4th ed). Los Angeles, CA: Sage.
- Denzin, N.K., & Lincoln, Y.S. (2018). The sage handbook of qualitative research (5th ed). Los Angeles, CA: Sage.
- Doyle, L., McCabe, C., Keogh, B., Brady, A., & McCann, M. (2020). An overview of the qualitative descriptive design within nursing research. *Journal of Research in Nursing*, 25(5), 443-455. https://journals.sagepub.com/doi/10.1177/1744987119880234
- 11. Flick, U. (2014). *The sage handbook of qualitative data analysis*. Los Angeles, CA: Sage.
- Goldberg, P., Wagner, W., Seidel, T., & Sturmer, K. (2023). Why do students exhibit different attention-related behavior during instruction? Investigating effects of individual and context-dependent determinants. *Learning and Instruction*, 83, 1-11.
- 13. Ginsberg, A.E. (2022). Transgressing teacher education: strategies for equity, opportunity, and social justice in urban teacher preparation and practice. Lanham, Maryland: The Rowman & Littlefield Publishing Group, Inc.
- Hughes, A. (2022). Equitable outcomes and indigenous learners of mathematics: deconstructing Australian education policy. *International Journal of Inclusive Education*, 1-17. https://doi.org/10.1002/sce.21728
- 15. Ibsen, M.F. (2023). A critical theory of global justice: the Frankfurt school and world society. Oxford University Press.
- 16. Jackson, A.Y. & Mazzei, L.A. (2022). *Thinking with theory in qualitative research* (2nd ed). New York, NY: Routledge.
- 17. Jones, T.R. & Burrell, S. (2022). Present in class yet absent in science: The individual and societal impact of inequitable science instruction and challenge to improve science instruction. *Science Education*, 106, 1032-1053. https://doi.org/10.1002/sce.21728
- 18. Ketko, T., Bor, H., & Arar, K. (2023). Enhancing values of dignity, democracy, and diversity in higher education: comparative insights for challenging times. New York, NY: Routledge.
- Kim, H., Sefcik, J.S., & Bradway, C. (2017). Characteristics of qualitative descriptive studies: A systematic review. *Research in Nursing & Health*, 40(1), 23-42.

- https://onlinelibrary.wiley.com/doi/10.1002/nur.217
- Kun, J. & Lingchun, S. (2022). Research on personalized recommendation method of intangible social heritage and materials in schools under double reduction policy. *Mobile Information Systems*, 1-9. https://doi.org/10.1155/2022/8916050
- 21. Lincoln, Y.S. & Guba, E.G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Liu, S.H. & Wang, G.H. (2022). Exploration of sports participation and curriculum resource utilization in primary schools before and after the "double reduction". Frontiers in Psychology, 13, 1-14. https://doi.org/10.3389/fpsyg.2022.898675
- Liu, Z., Duan, X., Cheng, H., Liu, Z, Li, P. & Zhang, Y. (2023). Empowering high-quality development of the Chinese sports education market in light of the double reduction policy: A hybrid SWOT-AHP Analysis. Sustainability, 15, 1-18. https://doi.org/10.3390/su15032107
- Lu, J, Tuo, P., Pan, J., Zhou, M., Zhang, M., & Hu, S. (2023). Shadow education in China and its diversified normative governance mechanism: Double reduction policy and internet public opinion. Sustainability, 15, 1-13. https://doi.org/10.3390/su15021437
- 25. Ministry of Education of the People's Republic of China (2021). "Guan Yu Jin Yi Bu Jian Qing Yi Wu Jiao Yu Jie Duan Xue Sheng Zuo Ye Fu Dan He Xiao Wai Pei Xun Fu Dan De Yi Jian [Suggestions on Further Reducing the Burden of Homework and Off-Campus Training for Students in Compulsory Education]." Ministry of Education of the People's Republic of China Website. Accessed 27 February 2022.
 - http://www.moe.gov.cn/jyb_xxgk/moe_1777/moe_178/ 202107/t20210724_546576.html
- 26. Nesoff, I. (2022). *Human service program planning through a social justice lens*. New York, NY: Routledge
- 27. Pang, H.S., Cheng, M.L., Yu, J., & Wu, J.J. (2020). Suzhi education and general education in China. *ECNU Review of Education*, *3*(2), 380-395.
- 28. Parson, L. & Ozaki, C.C. (2020). *Teaching and learning for social justice and equity in higher education*. Switzerland: Springer Nature.
- Peters, M.A., Besley, T., Jandric, P., & Zhu, X.D. (2020). Knowledge socialism: the rise of peer production-collegiality, collaboration, and collective intelligence. Singapore: Springer Nature
- Robinson, P.A., Williams, K.V., & Stojanovic, M. (2022). Global citizenship for adult education: Advancing critical literacies for equity and social justice. New York, NY: Routledge.
- 31. Rawls, J. (1971). *A theory of justice*. Harvard University Press.
- 32. Silverman, D. (2013). *Doing qualitative research* (4th ed). Los Angeles, CA: Sage.

- 33. Smith, J.A., Flowers, P. & Larkin, M. (2022). *Interpretative phenomenological analysis: theory, method, and research.* Los Angeles, CA: Sage
- 34. Spratt, J. (2017). Wellbeing, equity, and education: a critical analysis of policy discourse of wellbeing in schools. Switzerland: Springer.
- 35. Strunk, K.K. & Locke, L.A. (2019). Research methods for social justice and equity in education. Switzerland: Palgrave MacMillan.
- 36. Tai, K.W.H. (2023). Multimodal conversation analysis and interpretative phenomenological analysis. New York, NY: Routledge.
- 37. Torrance, D., Forde, C., King, F., & Razzaq, J. (2021). What is the problem? A critical review of social justice leadership preparation and development. *Professional Development in Education*, 47(1), 22-35.
- 38. Wang, D., Chen, X., Ma, Z., Liu, X. & Fan, F. (2022). Has the double reduction policy relieved stress? A follow-up study on Chinese adolescents. *Child and Adolescent Psychiatry and Mental Health*, *16*(91), 1-10. https://doi.org/10.1186/s13034-022-00530-6
- Winkle-Wagner, R., Lee-Johnson, J. & Gaskew, A.N. (2019). Critical theory and qualitative data analysis in education. New York, NY: Routledge.
- 40. Watts, L. & Hodgson, D. (2019). Social justice theory and practice for social work: Critical and philosophical perspectives. Springer Nature.
- 41. Xue, E. & Li, J. (2022). What is the value essence of "double reduction" (Shuang Jian) policy in China? A policy narrative perspective. *Educational Philosophy and Theory*, 55(7), 787-796. https://doi.org/10.1080/00131857.2022.2040481
- 42. Yang, L., Xie, Y., Zhou, A., Zhang, W. & Smith, J. (2023). The impact of the implementation of double reduction policy on tutors in shadow education: legislation goals and early experiences. Compare A Journal of Comparative and International Education,1-17.
 - https://doi.org/10.1080/03057925.2023.2170173
- Zhang, X., Zhao, W., & Zhou, K. (2022). An empirical analysis of double reduction education policy based on public psychology. *Frontier in Psychology*, 1-14. https://doi.org/10.3389/fpsyg.2022.952719
- 44. Zhang, W. (2023a). School principals as leaders of educational environments in school settings: Recontextualization of American educational practices in China. [Doctoral dissertation, Western Michigan University]. Proquest Dissertations and Theses Global.
- 45. https://www.proquest.com/docview/2835781581?pq
 origsite=gscholar&fromopenview=true
- Zhang, W. (2023b). Exploring whole-person education reform from principals' perspective on high-stakes testing. *International Journal of*

- Educational Reform, 1-33. DOI: 10.1177/10567879231187417
- Zhang, W. (2023c). Chinese school principals explore the fifth discipline fostering a learning community in a high school in Beijing. *International Journal of Educational Reform*, 32(1),102-124. https://journals.sagepub.com/doi/10.1177/10567879 221076083.
- 48. Zhang, W. (2023d). Exploring the trust-based learning culture from teachers for student success, growth mindset, and school development. *Global Scientific and Academic Research Journal of Multidisciplinary Studies*, 2(3), 1-14.
- Zhang, W. & Koshmanova, T. (2022a). Chinese school principals create an equity-based learning community in leading school improvement for secondary high school student achievement. Global Scientific and Academic Research Journal of Multidisciplinary Studies, 1(5), 23-33.
- 50. Zhang, W. & Koshmanova, T. (2022b). American high school principals create a caring professional learning community in serving students with disability in the mid-western schools: A basic qualitative study. Global Scientific and Academic Research Journal of Multidisciplinary Studies, 1(6), 21-33
- 51. Xie, S.Z. & Zhang, W. (2022c). Chinese teachers create an equitable classroom for student achievement in a language center in Beijing. Paper presented and published at the *Annual Meeting of the American Educational Research Association (AERA)*, USA, April 21-26, 2022/AERA Online Paper Repository, 2022.
- Zhang, W. & Koshmanova, T. (2021a). Building trust: Reflections of school principals working with students, parents, and teachers in an intensive language training center in Beijing. *Journal of Higher Education Theory and Practice*, 21(6), 63-78. https://doi.org/10.33423/jhetp.v21i6.4376
- 53. Zhang, W. & Koshmanova, T. (2021b). From personal experiences of transformative learning on educational challenges and reforms in secondary school in China. *International Journal of Education*, *9*(*3*), 1-8.
- 54. Zhang, W. & Koshmanova, T. (2021c). Exploring Chinese school principal experiences and leadership practice in building a professional learning community for student achievement. *International Journal of Organizational Leadership*, 10, 331-347.
- 55. Zhang, W. & Koshmanova, T. (2021d). Chinese teachers build a growth mindset to foster student achievement in the disadvantaged private secondary high schools. *Journal of Education and Human Development*, 10(3), 7-19.
- Zhang, W. & Koshmanova, T. (2021e). Exploring the role of school principal for social responsibility in the test-oriented educational context. Paper

- presented and published at the Annual Meeting of the American Educational Research Association (AERA), USA, April 9-12, 2021/AERA Online Paper Repository, 2021. https://doi.org/10.3102/1687610
- 57. Zhang, W. & Koshmanova, T. (2021f). The role of Chinese secondary school in developing social responsibility in the exam-oriented educational context: a comparative qualitative study. The 65th Annual Conference of Comparative and International Education Society, April 25 to May 2.
- 58. Zhang, W. & Koshmanova, T. (2020a). Understanding the Impact of Race, Socioeconomic Status on Student Achievement for Secondary School Students. *International Journal of Education* and Human Developments, 6(3), 5-10
- Zhang, W. & Koshmanova, T. (2020b). A Comparative Study of School Principal Experiences: Recontextualization of Best American School Principals of Using Technology in China. In. Gary H. Marks &. Denise Schmidt-Crawford (Eds.), Proceedings of Society for Information Technology & Teacher Education International Conference (pp. 651-656). Online: Association for the Advancement of Computing in Education (AACE). Retrieved April 21, 2020, from https://www.learntechlib.org/primary/p/21580
- 60. Zhang, W. & Koshmanova, T. (2020c). Transformational school leaders support teachers to foster student grit. Proceedings of the Asian Conference on Arts & Humanities. Retrieved from

- http://25qt511nswfi49iayd31ch80-wpengine.netdna-ssl.com/wp-
- content/uploads/papers/acah2020/ACAH2020 5757 9.pdf
- Zhang, W. & Koshmanova, T. (2020d) Creating A Teacher Collaborative Practice in An International High School in Beijing: The Role of The Principal. *Edulearn20 Proceedings*, Pp. 1760-1768.
- 62. Zhang, W. & Koshmanova, T. (2020e). Relationship between factors and graduation rates for student success in the U.S. college. Proceeding of the 9th European Conference on Education. Retrieved from https://ece.iafor.org/publishing-opportunities/
- Zhang, W. & Koshmanova, T. (2020f). Chinese school principal views on trust, learning-centered leadership, and teacher learning in the test-oriented educational environment. *ICERi2020-Proceedings*. 86-92
- Zhang, W. & Koshmanova, T. (2020g). Chinese schoolteachers' view on critical thinking, selfdirection, and problem-solving skills on student success in an international high school in Beijing. *ICERi2020-Proceedings*, 3026-3030.
- 65. Zhou, J. (2022). Research on the new ecological model under the environment of double reduction of children's community education services. *Journal of Environmental and Public Health*, 1-8. https://doi.org/10.1155/2022/9471160
- 66. Zhu, X.D., & Li, J. (2020). Classroom culture in China: collective individualism learning model. Singapore: Springer Nature.