

Exploring the Strategies Employed by Kindergarten Teachers in China to Foster Self-regulation Skills among Young Children

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Abstract. The self-regulation support strategies employed by Chinese kindergarten teachers and the challenges they face when implementing these strategies are investigated. Self-regulation is considered a crucial aspect of school readiness, and this study focuses on children aged 3-6 years. Through a qualitative approach that involves interviews with six kindergarten teachers, this study explores the different strategies used by teachers to promote self-regulation among young children. The findings show that Chinese kindergarten teachers use various techniques, including games, pretend play, music and songs and picture books, to help children develop their self-regulation skills. However, teachers may encounter challenges such as children not engaging in the activities and a lack of experience among the teachers themselves. In this study, the importance of effective self-regulation support strategies in early childhood education is highlighted, and insights are also provided into the specific approaches used by Chinese kindergarten teachers.

Keywords: Self-regulation Skills; Effortful Control; Executive Functioning; Early Years Education.

1. Introduction

1.1. Research Philosophy

In this study, an interpretivist research paradigm was utilised to explore the strategies employed by kindergarten teachers in enhancing young children's self-regulation. Embracing an interpretivist research paradigm, which underscores the subjective and contextual aspects of human experiences, the study aims to comprehend the meaning and social reality through interpretation and understanding. By employing qualitative methods and semi-structured interviews, this research seeks to uncover the diverse strategies employed by kindergarten teachers and explore the challenges they encounter in promoting self-regulation skills among young learners.

1.2. Research Design

Qualitative research methods are utilized to capture the richness and complexity of real-world situations concerning self-regulation in Chinese kindergartens. Recognizing the limitations of quantitative methods in exploring subjective phenomena, qualitative approaches offer a detailed description of human experiences and allow flexibility in data collection and analysis. Given the scarcity of literature on self-regulation strategies in Chinese kindergartens, the qualitative method provides a means to gather comprehensive and unpredictable data, addressing the innovative strategies utilized in these educational settings.

In this study, the semi-structured interview method in qualitative research was employed to investigate the self-regulation strategies used in Chinese kindergartens. According to Burgess (1984), a semi-structured interview was a 'conversation with a purpose'. By allowing for a flexible and systematic exploration of the research topic, a balance between the researcher's control over the interview and the participants' input is provided (Dearnley, 2005). In addition, it also allows for a systematic data collection approach while providing flexibility to explore the research topic in-depth, hence indicating that the interviewer and interviewee can discuss it in more detail (Flick et al., 2004). Using this approach, all participants were asked similar questions, while the sequencing and exploration of additional questions are based on the interviewee's responses. In this method, a more

natural conversation is promoted, which permits participants to freely share their experiences in their own words, which can provide rich and nuanced data for analysis (Miles & Gilbert, 2005).

The interviews were conducted with kindergarten teachers who are key figures in implementing self-regulation strategies in young children. In addition, in the semi-structured interview, the fixed questions covered four aspects of self-regulation strategies and skills, including the definition of self-regulation, how it is promoted in the kindergarten setting, the encountered challenges, and the potential solutions.

The lack of formal academic training among kindergarten teachers may potentially hinder their complete comprehension of “self-regulation” and some other scholarly terms. Accordingly, I made a conscious effort to refrain from utilising this specific academic term during my interviews. Therefore, some alternative questions that could be asked to explore the concept of self-regulation are as follows:

- 1) Can you describe the strategies you use to help children manage their emotions and behaviours?
- 2) How do you help children develop attention skills, memory skills, and self-control skills?
- 3) What techniques do you use to encourage children to follow rules and routines?
- 4) Can you give an example of a time when a child was struggling with his or her behaviour and how you helped them to regulate their behaviour?
- 5) What kinds of activities or games do you use to help children improve their control skills, attention skills, memory skills and emotion control skills?

Based on their answers to pre-determined interview questions, some other interview questions were added to clarify their answers and investigate their experience. Due to the flexibility of this approach, researchers are better able to delve into the specificities of self-regulation strategies in Chinese kindergartens while addressing emergent issues that may arise during the interview process (Adams, 2015). If participants’ insights remain elusive in the interview, then researchers are likely to expeditiously modify survey inquiries, alter environmental conditions, or manipulate other variables for enhancing the quality of collected data. Thus, using the semi-structured interviews in this study offers an effective means of exploring self-regulation strategies in Chinese kindergartens while remaining open to the complexities and nuances of the participants' experiences. On the whole, the semi-structured interview method not only provided insights into current practices of promoting self-regulation in Chinese kindergartens but also highlighted potential areas for improvement.

1.3. Participants and Site

Table 1. List of participants

	Level that participants teach in kindergarten	Teaching experience	Role in Kindergarten	Working sites
Participant 1	Level 3 (5-6 years old)	20 years	Kindergarten principal	Kindergarten A
Participant 2	Level 2 (4-5 years old)	18 years	Teaching supervisor	Kindergarten A
Participant 3	Level 2 (4-5 years old)	21 years	Kindergarten principal	Kindergarten B
Participant 4	Level 1 (3-4 years old)	16 years	Teaching supervisor	Kindergarten C
Participant 5	Level 1 (3-4 years old)	15 years	Room leader	Kindergarten D
Participant 6	Level 3 (5-6 years old)	13 years	Room leader	Kindergarten D

Six kindergarten teachers with substantial teaching experience are selected as participants for this study. These educators, hailing from different kindergartens in Xingtai, bring invaluable insights into the challenges and opportunities in teaching self-regulation skills. The decision to conduct the

research in Xingtai, a less-explored region in terms of self-regulation research, contributes to enriching the existing body of knowledge on this topic.

1.4. Data Collection Process

A multifaceted approach is employed to recruit participants, including dissemination of research information through social media platforms and snowball sampling techniques. Interviews are conducted remotely through the online platform Zoom, allowing for flexibility and accessibility while ensuring compliance with safety protocols. The thematic analysis, following Braun and Clarke's framework, is utilized to identify significant patterns and themes in the data, providing insights into self-regulation strategies and challenges faced by kindergarten teachers.

1.5. Ethical Consideration

Ethical considerations are paramount throughout the research process, with measures taken to inform participants fully and protect their rights and welfare. Each participant receives an information sheet and signs an ethical consent form before participating in the study. Additionally, the research is reviewed and approved by the University of Durham community to uphold ethical standards and principles.

2. Findings

2.1. Strategies Utilised by Kindergarten Teachers

Theme 1: Strategies related to executive functioning

Games are the main strategies that kindergarten teachers use to promote children's executive functioning. In this theme, popular games, including "Wooden Boy", "Doing the opposite music are common strategies used by K T, which are main themes in this sub-section. In addition, this theme also presented some other methods, such as using music and songs to cue the different routines. However, despite the subdivision of the self-regulation theme into three distinct subthemes of inhibitory control, working memory and attentional flexibility, the games employed by teachers to promote children's self-regulation skills often involve multiple aspects of executive functioning. In other words, the different aspects of self-regulation are often interrelated and interconnected, and improving one aspect may also have positive effects on other aspects. Accordingly, it is crucial to recognise that these games are not limited to promoting only a single aspect of children's development.

Subtheme 1: Strategies related to children's inhibitory control

Concerning the strategies to challenge children's ability of behavioural control, it was suggested by several participants that playing games involving physical movement is an approach to help them practice their control. For example, "Wooden Boy" was one game that was commonly mentioned. The teachers argued games that involve directions, such as frozen and stop, can challenge their ability to control. During gameplay, children are required to actively regulate their behaviours to complete the tasks, and that in turn provides opportunities for the development and training of inhibitory control.

"The wooden man is a game we would often play, challenging the child's motor control and concentration skills." (Participant 2)

Participant 5 mentioned a game that involves doing the opposite of the teacher's actions. This game tested the children's reflexes as they must do the opposite of what the teacher does. If the children follow the teacher's movements, they will lose. Despite the challenging nature of the game, the children's inhibitory control is developed in this game.

"The game tests the children's reflexes...This game provides entertainment and fun, and helps to develop the children's cognitive abilities, such as their reflexes, attention, and focus." (Participant 5)

On the whole, it seems that incorporating games that involve stopping, moving, and responding has been considered to be effective in helping children improve their inhibitory control. These games require children to pay attention to instructions, respond accordingly, and regulate their behaviour, thereby promoting the development of self-regulation.

Subtheme 2: Strategies related to children's working memory

To help the children improve their memory and concentration skills, the teachers used various games. For example, "Who's missing" and "What is missing" were some games mentioned by participants 5 and 6. The two games aimed to exercise children's memory by allowing them to recall the missing objects after being given time to observe the items. Therefore, Regular practice and exposure to games that require the use of working memory can promote the development of this cognitive skill in children.

“The teacher can set out a few things and ask the children to look at them, such as for 50 seconds or a minute, ...and then ask the children to gently close their eyes and next the teacher can take away one thing. The children are asked to guess who is missing. Then, you can gradually increase the number of items” (Participant 5)

Apart from the aforementioned games, "What's in the zoo" is another game that challenges children's memory. This game involves all the children sitting together and clapping their hands while reciting the question, "What's in the zoo?" Then, the first child names an animal that can be found in a zoo, followed by the next child who repeats the previously mentioned animal and adds a new one to the list. This will continue until every child has had a turn, with each child required to remember all the animals mentioned by their peers. This game comes to an end when a child cannot recall all the animals mentioned previously, and then he or she is declared the loser. This game can be an engaging way to help children improve memory skills while promoting teamwork and social interaction.

“What's in the zoo, a game that.... This game is very helpful in improving children's memory, and some children can even remember over ten words” (Participant 3)

Other teachers mentioned the strategies for sequencing children to enhance memory. Participant 1 introduced a headdress of small animals to the children and asked them to remember the order of the animals, and then disrupt them and have another child restore the order. This sorting process can develop children's working memory.

“I usually have five or six children, and I also have the children shout out ten numbers before they start sorting.... The whole process was fun, and the children were very involved.” (Participant 1)

On the whole, by employing different games and activities, from "Who's missing" and "What is missing" to "What's in the zoo", these games can challenge children's memory and sense of rhythm engagingly. In addition, some teachers also use sequencing games, including the headdress of small animals, to develop children's working memory. These games can be easily incorporated and modified into classroom activities or used in a variety of settings, such as during playtime outdoors. All of these games share the common goal of promoting children's working memory skills, which are essential components of executive functioning and can have a positive impact on children's self-regulation.

Subtheme 3: Strategies related to children's attentional flexibility

In the interviews, it is revealed that teachers often need to draw children's attention in various situations during their daily activities, such as the assembly after free-play time. Many teachers reported that they have used hand clapping games and transitional music and songs to help keep the children focused and well-behaved. For example, some teachers may initiate a call-and-response game, including finger play, and ask the children to clap their hands or shoulders and the children

respond with a specific phrase. This can be an effective way to engage children in a fun and interactive activity while also providing a signal for transitions between activities to improve children's attentional flexibility.

"..., if the teacher says, 'Please clap your hands with me', and then the children will respond, 'I'll clap my hands with you', and then when the teacher says, 'Please clap your shoulders with me', and then the children will respond, 'I'll clap your shoulders with you'." (Participant 4)

Additionally, teachers may incorporate songs or music to create a calming atmosphere in the classroom, thereby also helping children to maintain their focus and behaviours.

"...the teacher will play soft music, while the children are working. Then the children will know that they need to be quiet and that it is time to do their activities in that area." (Participant 1)

The use of music and other auditory cues may be effective in both helping the children stay engaged and focused and providing a sense of structure and routine. Some of the participants mentioned that specific pieces of music or chants were used to signal particular activities or transitions. Accordingly, this suggests that children may have become familiar with these cues over time and learned to associate them with particular behaviours.

"Most time there is music, sometimes verbally, and next the teacher shows the children what to do and where to put the object, and then the next time they form that habit when... such as we read the picture book, and then when the music comes on they know that it is time to leave the class and put the book back in its place." (Participant 4)

Generally speaking, this theme has presented various strategies used in kindergarten classrooms that can help children to develop self-regulation skills. These strategies can be memory exercises, hand clapping games, transitional music and songs, and other activities encouraging focus, attention and cooperation. By using these techniques, teachers can help children improve their ability to regulate behaviours and develop memories, hence supporting their overall self-regulation and further school readiness.

Theme 2: Strategies related to children's effortful control

Both participant 1 and participant 6 suggested that via picture books, children can better understand what emotions are and how people express them in different ways. Visual aids like picture books can help children identify and differentiate between emotions and recognise the physical and behavioural cues associated with each other. This plays a particularly important role in young children possibly struggling with articulating their own emotions and understanding the emotions of others.

"I think that it is easier for children to understand through picture book reading than just giving them a lecture." (Participant 6)

During the interviews, picture books, such as "The Angry Soup", "Feifei is Angry", and "My Little Emotional Monster", were frequently mentioned as effective tools for teaching emotional control. Using engaging and relatable stories, these books can help children understand and manage their emotions. For example, "The Angry Soup" tells a story about releasing the anger in one's heart and accepting negative emotions as a normal part of life. In the book, the importance of acknowledging and understanding one's emotions rather than suppressing them is emphasised.

"Angry Soup is a popular picture book that has always been used by our teachers.... not only because it tells children what emotion is, but also expresses it." (Participant 1)

The teachers believe that through using picture books, children can better relate to the characters and situations in the story, which can help them to develop emotional awareness and effective strategies

to express them. Therefore, picture books are powerful to promote emotional development in young children.

“...through the children reading...., they can understand and identify their emotions, ... to say and express them....” (Participant 3)

In addition to using picture books, pretend play can also be used as a tool for teaching children about emotions and how to manage them. Through dramatic play, children can participate in role-playing activities that allow them to explore different emotions. By acting out stories or scenarios from picture books, children can better understand others' emotions and experiences and learn how to express their feelings healthily.

Also, the teachers may create props, such as a doll, to facilitate pretend play and encourage children to communicate emotions and needs. Therefore, pretend play can be an effective way for children to develop emotional conception and self-regulation skills.

“...we also sometimes have children act out picture book stories, one of my colleagues even created a big paper house for the pretend play.” (Participant 5)

Furthermore, some teachers have built special physical settings in the classroom that can help children to learn emotional-related knowledge. For example, Participant 1 created an Emotions Corner in the classroom where children can go when they feel upset, lonely or overwhelmed. The Emotions Corner is equipped with books, toys and other resources helping children to calm down and express emotions healthily. When a child experiences an emotional problem, such as a conflict with another child, the teacher can bring them to the corner to help them process feelings and find solutions. By creating a supportive space for emotional exploration and regulation, teachers can better help children develop emotional intelligence and improve social and emotional skills.

Overall, the strategies used by kindergarten teachers in helping children develop their effortful control skills are presented, including using visual presentations like picture books, using pretend play, and creating specific settings in the classroom for emotional exploration and regulation. Through these strategies, children can better understand and express emotions healthily. By incorporating these strategies into teaching, kindergarten teachers can supportively foster children's self-regulation.

2.2. Challenges

Theme 1: Children are not engaged in games

Regarding the challenges of the strategies, some teachers mentioned that some children are not interested in games despite the effort to create engaging activities.

“The difficult time is that some children will not bother with these activities at all. Sometimes it's because it is too easy, sometimes it's because the child is not very active by nature, and sometimes it is because they are bored of playing.” (Participant 2)

In the meantime, some children may struggle with concentration and prefer more passive activities.

“Some children may not be aware of the lesson, have poor concentration and only like to do what they like, such as play with the stool, look at other children, and move the accessories on their clothes, etc.” (Participant 3)

Consequently, some children may resort to disruptive behaviours when they lose interest in the games.

“The teacher's design of the game is not challenging for him. He may find it rather bland and does not want to play, and then will instead go and break the rules....” (Participant 6)

Other reasons why children are not engaging with the game lie in that they lack confidence and social ability and therefore they refuse to play with peers.

“Some children do not like to play games because of their social skills and their shyness. Of course, this is also related to personality. What teachers can do is to actively guide and listen.”
(Participant 1)

The teachers’ solution to address this problem is to upgrade the games’ difficulties and regularly change new games. In addition, teachers need to give students autonomy to lead games by themselves to improve engagement.

“The most important thing is to listen to them...let them lead the game, and then they will create new rules and make the game more fun...you just need to trust them.” (Participant 3)

In summary, despite teachers using various games and activities to help children improve memory and concentration skills, there is still the existence of some challenges. Some children may not be interested in the games, while others may struggle with concentration and prefer more passive activities. Accordingly, some children may resort to disruptive behaviours when they lose interest in the games. Therefore, it is necessary for teachers to find ways to adapt the games to meet the needs of all children in the classroom.

Theme 2: The teacher's inexperience

According to some teachers, a teacher's experience and capability can significantly affect the quality of instructional strategies in the classroom. The lack of experience can cause difficulty in holding children's attention, resulting in ineffective teaching.

“The difficulties I encountered were when I first joined the profession, I was not experienced enough to hold children's attention in the classroom and then the teaching would be very ineffective.” (Participant 6)

Additionally, participant 5 noted that not providing rules in advance can lead to confusion during gameplay, which indicates that the teacher should enable effective planning and clear communication.

“.....the teacher does not give the rules to the child in advance when they make a request to the child. Well, thus when children are playing later, they may just not know what they should pay attention to and how they should play in this game....” (Participant 5)

Overall, in the result chapter, several themes concerning the implementation of teaching strategies in the classroom are presented. Some challenges included children's lack of interest in certain activities and the teacher's inexperience in holding children's attention. In the next discussion chapter, why teacher uses play, games, and other strategies to promote children’s self-regulation is explored.

3. Discussion

3.1. Promoting Children’s Self-regulation through Games

Based on the findings, teachers mainly use games to promote children’s self-regulation. According to the Vygotskian sociocultural theory, learning through play exerts an effective role in children developing self-regulation skills (Bodrova & Leong, 2007). In Vygotsky's theory of cognitive development, the notion of using games to foster children's early development in various ways is supported.

Firstly, it is believed by Vygotsky that children should engage in cooperative conversations with more knowledgeable members of their community to develop advanced cognitive processes, such as

attention and behaviour management, reflection on experiences and ideas, and problem-solving strategies for cognitive and social issues (Berk et al., 2006). Accordingly, play provides a social context for children to engage in challenging contexts and thus learn new skills through the process of games (Bodrova & Leong, 1998). This indicates that learning through play can promote children to develop self-regulation skills. At the same time, this is supported by the literature review in this study, which presents that using play and games in early childhood education contributes much to promoting executive functioning and self-regulation skills (e.g., Savina, 2014; Schmitt et al., 2015; Thierry et al., 2016).

Besides, another key point made by Vygotsky lies in the significance of the cultural and social environment during the process of learning. While Piaget emphasised that cognitive development mainly arises from independent exploration, where children construct their knowledge, it is posited by Vygotsky that cognitive development emerges from social interactions, guided learning, and co-construction of knowledge in the zone of proximal development between children and their partners (Daneshfar & Moharami, 2018). According to Daneshfar and Moharami (2018), Vygotsky's theory considers cognitive development as a social process, where children acquire knowledge and skills by interacting with more experienced adults. This is consistent with the idea that games necessitate interaction with teachers, which creates a social context that fosters cognitive development by engaging children in challenging and meaningful activities. Therefore, games play an important role in promoting children's self-regulation skills by providing opportunities for social interaction and engaging them in stimulating activities.

The physical games in the findings and the literature review are designed to engage children in diverse activities while simultaneously fostering their inhibitory control, which is considered a cognitive process that enables individuals to suppress impulsive behaviours (Chevalier et al., 2014). Following the research, it is required by these games that children need to exercise behavioural control and inhibit natural impulses, which can challenge them and promote their self-regulation skills (Chevalier et al., 2014).

Some other studies have already found a relationship between play and self-regulation. For example, the observational study of Whitebread et al. (2009) pointed out that self-regulation development was observed in child-initiated activities conducted in small groups with no adult supervision. In the experimental studies, it is confirmed that play is beneficial when children prepare for game tasks which require high levels of metacognitive and self-regulation skills, including attention and inhibitory control (Whitebread et al., 2009).

In another research, the correlation between self-regulation, academic achievement, and physical play during recess in children was examined (Becker et al., 2013). The outcomes demonstrated that greater levels of physical activity during playtime were related to an improvement of self-regulation skills, which were in turn associated with better performance in early reading and math assessments (Becker et al., 2013). Focusing on how play is connected to the development of self-regulation, the study by Su (2010) shows that play helps children learn self-regulation by providing culturally acceptable ways of expressing and releasing feelings, promoting autonomy, encouraging rule-following, and offering a safe space to make and learn from mistakes. Therefore, it can be found that the incorporation of games and playful activities into kindergarten can provide children with opportunities to practice and strengthen self-regulation skills.

3.2. Promoting Children's Self-regulation through Pretend Play

In this research, the findings noted that kindergarten teachers sometimes utilise pretend play to help children learn about emotions. Numerous studies present that pretend play can be an effective strategy for promoting self-regulation among children (e.g., Slot et al., 2017; Berk et al., 2006; Whitebread & O'Sullivan, 2012). According to Savina (2014), pretend play enhances children's self-regulation in various ways, such as developing the ability to control impulsive and spontaneous behaviour and follow rules, which can lead to more purposeful and intentional behaviour. Pretend play provides a

secure environment for children to explore and express various emotions, such as anger, fear and grief (Berk et al., 2006). Through engaging in play, kids are likely to learn to control these emotions and generate coping mechanisms for handling difficult circumstances (Slot et al., 2017). Vygotsky emphasised the role of make-believe play, where children engage in pretending to be someone or something else (Berk et al., 2006). As pointed out by Vygotsky, pretend play was a significant context in early childhood to develop self-regulation (Whitebread & O'Sullivan, 2012).

In the findings of this study, the significance of play in promoting children's self-regulation skills is highlighted, which is consistent with the results of previous research. Specifically, the study found that the strategies utilised in Chinese kindergartens play an effective role in enhancing children's self-regulation. All these results support the notion that early interventions aimed at promoting self-regulation can positively affect children's development and suggest that the strategies used in Chinese kindergartens could also be adapted for use in some other settings.

However, some research criticises the belief that children should learn through games and play. Bodrova et al. (2013) challenged the commonly held belief that play is a key factor in child development. According to the authors, a problem for educators under pressure to replace play with academic activities is posed (Bodrova et al., 2013). In their opinion, the difficulty in linking play to development may be due to a failure to consider cognitive and non-cognitive developments and advocate for a return to Vygotskian theories which differentiate between immature and mature play.

3.3. Promoting Children's Self-regulation through Music and Songs

The teachers in kindergarten incorporate music into daily routines as an effective means of reminding children to prepare for activities, including classes and lunch. Also, it is indicated by the literature review that music can be valuable for kindergarten teachers to help children prepare for cleaning and rearranging. By providing a specific cue, including the length of a song, teachers can help children manage their behaviour and appropriately respond to changes in their environments. This strategy can enhance children's engagement and attentiveness, thus optimising their readiness to participate in various tasks throughout the day (Shiu et al., 2018). What's more, Shiu et al. (2018) highlighted that incorporating mediators, such as the creation of play plans and singing clean-up songs, provided children with opportunities to engage in self-directed activities and promote autonomy. Consequently, children could better focus on their work and clean up their play area.

In addition, using music in this way is consistent with the principles of the behavioural learning theory. Behaviourism is a theory of learning which states that all behaviours are learned by interacting with the environment via a process called conditioning (Rothschild & Gaidis, 1981). The music here is used by teachers because music is a stimulus employed to condition children's behaviour. By incorporating music into daily routines, including transitioning between activities or cleaning up, teachers clue children that it is time to move on to the next task. This use of music as a stimulus to elicit a desired response fits the principles of behaviourism.

Furthermore, the multisensory learning theory can help explain the reason why the use of picture books and music can effectively promote children's self-regulation. The multisensory-training protocols can better approximate natural settings and are more effective for learning because, during early development, alternating the environment or disrupting the processing to one sense can cause a striking degree of neural plasticity between the different senses (Shams & Seitz, 2008). Therefore, music stimulates children's auditory senses, while picture books stimulate their visual senses. Accordingly, using picture books and the music becomes useful to promote children's emotional regulation. In the next section, why teachers use picture books to promote children's emotional control skills will be discussed.

3.4. Promoting Children's Emotional Control in Self-regulation through Picture Books

In the research on using a picture book to teach children self-regulation, picture books do benefit children's emotion-related knowledge (Vajcner, 2015). Through investigating picture books and

children's emotional regulation, Tsai (2008) and LaForge (2018) all supported the idea that using picture books to promote children's emotional self-regulation is effective. Zambo (2007) demonstrated that using picture books as a strategy contributes much to regulating the emotions of special needs children, which suggests that carefully selected picture books offer students an opportunity to observe characters who struggle to regulate emotions. Therefore, this can help students learn to be aware of their emotions and learn strategies to regulate them, which can assist students in effectively controlling and managing their emotions (Zambo, 2007). Moreover, some research also found that the benefit of emotional picture books is on the teachers' side. According to Garner and Parker (2018), teachers may enhance their use of emotional language in early childhood classrooms by reading emotion-based picture books. The significance of picture books as a source of emotion-related knowledge for parents, children and educators is emphasised (Garner and Parker, 2018).

Sipe (1988) argued that picture books work because the text and pictures in picture books work together to provide a more complete and nuanced understanding of both the story and its themes. As pointed out by Sipe, the text and pictures in picture books can operate complementarily, in which each element can contribute to the overall meaning of the story. Meanwhile, the text in picture books provides important context and information which can help to guide children's interpretation of the illustrations (Carney & Levin, 2002).

Besides, the use of visual aid fits children's development stage and the cognitive development process. Piaget (Huitt & Hummel, 2003) suggested that children in kindergarten are in the second stage of the Preoperational stage when children begin to use words and images and some other symbols to represent objects and events around them. Therefore, children's cognitive development in this stage is better developed through visual factors like Pictorial Illustrations. Carney and Levin (2002) further indicated the reason why combining texts and pictures can enhance children's understanding more compared to the only use of text. Their findings show that pictures help clarify the difficult text and also provide a useful structural framework for the text content (Carney & Levin, 2002). In addition, pictures include systematic mnemonic components that can improve a reader's recall of text information (Carney & Levin, 2002). On the whole, using pictures in these different ways can enhance the reader's understanding and retention of the text.

3.5. Challenges

The findings reveal that the challenges identified by teachers mainly revolve around two aspects. Firstly, their lack of self-regulation strategies; and secondly, children's lack of attention or interest in engaging with these games. In some studies that have examined interventions targeting self-regulation, it is suggested that these interventions' effectiveness may be hindered by the lack of teacher qualifications and training in this area (Farran & Wilson, 2014). The teachers' lack of training could cause the inconsistent implementation of the interventions, which is likely to reduce their effectiveness. Additionally, teachers may not fully understand the underlying principles of self-regulation without proper training, which could limit their capability to effectively support students in developing these skills (Farran & Wilson, 2014). Accordingly, these interventions may not yield positive outcomes.

Also, other studies have focused on the effect of teachers' abilities on children's self-regulation development. Perels et al. (2009) focused on how training teacher self-regulation can affect children's self-regulation. By conducting an intervention for kindergarten teachers, the study aimed to improve self-regulated learning in pre-schoolers. Rather than focusing solely on individual components of self-regulation, the study was designed to support the overall self-regulation cycle (Perels et al., 2009). In the research findings, a significant improvement in both the self-regulation skills of kindergarten teachers and the self-regulated learning of pre-schoolers who had participated in the training programme was revealed. The results suggest that training kindergarten teachers in self-regulated learning play an effective role in enhancing the self-regulation abilities of preschool children. That is because teachers trained in self-regulation can better understand the importance of creating a classroom environment that supports the development of these skills. At the same time, they can use

appropriate strategies to teach and model self-regulation to their students, which can help children to more effectively learn and apply these skills (Perels et al., 2009).

Regarding children not engaging in games, teachers found that some children easily get bored by games and refuse to join the game. Also, several solutions are suggested by participants, such as making the game more challenging and letting children make new rules and allowing them to lead the game. The strategy of giving children the opportunity to lead activities was utilised in the study of Tominey and McClelland (2011), to engage the interests of all children in activities, particularly those who were shy or easily distracted. This strategy was implemented in every session, ensuring that every child had the chance to lead an activity and no child declined. One possible reason that children with autonomy are motivated to play the game lies in that they are self-determined and can control the situation and thus arise interest in the games. The self-determined theory holds that people can become self-determined when their requirements for competence, relatedness and autonomy are met (Deci & Ryan, 2012). By permitting children to lead the game, children are full of autonomy and therefore gain a sense of control, which can lead to their positive engagement with games.

On the whole, the importance and reasons for promoting self-regulation in young children through using games and pretend play in kindergarten settings are highlighted. The findings are consistent with the previous research that emphasises the importance of play and games in promoting self-regulation in children. However, there are also some challenges to the belief that play has an essential role in child development. Nonetheless, these research findings suggest that incorporating playful activities in kindergarten classrooms can offer children opportunities to practice and strengthen self-regulation skills, which can positively affect their overall development.

4. Conclusion

The study explored self-regulation strategies employed by kindergarten teachers in China and the challenges they face. Strategies include physical and verbal games, finger play, and picture books, promoting self-regulation effectively. Challenges include children's lack of interest, disruptive behavior, and teacher experience affecting instructional quality. Implications suggest these strategies can be applied broadly, emphasizing teacher experience and student engagement. The study also highlights deficiencies in teacher training by the Chinese Education Bureau, offering recommendations for improvement. Limitations include a small sample size and lack of parental or child perspectives, suggesting the need for broader studies and observational data. Future research should expand sample size and geographic scope, incorporate observational data, and assess long-term impacts on children's academic and socio-emotional outcomes.

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