

Parental involvement in online homework: a study of Chinese primary school students in Covid-19 out break

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Abstract

The article examines the perceptions and practices of Chinese parents, who were involved in completing the homework of primary school students in mainland China during the COVID-19 outbreak. The research draws on previous literature regarding parents' roles in enhancing children online homework abilities and empirical data obtained using a qualitative case study design. In-depth semi-structured interviews were conducted with seven parents of primary school students, experiencing online learning during the COVID-19 outbreak. Data were analysed thematically. The results indicate Chinese parents' doubt in children's self-control ability while performing homework online and, therefore, shows a willingness to participate directly and indirectly in online session, such as supervising their children to complete homework or establish the child's daily learning habits. Further, parents doubt online lessons' effectiveness in terms of students' limited concentration due to lack of supervision and interaction with the teacher and fellow students. Therefore, parents satisfy their worries through active cooperation and personal supervision. In this study, most of the mothers participate in their children homework, and the fathers is rarely involved. The result has implication for parents, teachers and policymakers to understand and cultivate the perceptions, strategies, and practices of contemporary Chinese parents in dealing with children's home-based learning processes in the pandemic.

Keyword:

Parental involvement; COVID-19; online learning; homework; primary school student;

Introduction

The outbreak of COVID-19 in Wuhan, China, at the end of 2019, unexpectedly rocked the country. This epidemic had the fastest spread, the broadest scope of infection, and was the most difficult to prevent and control since the establishment of China, representing a significant public health emergency (Xinhuanet, 2020). Endeavouring to curb the spread of COVID-19, the Government of China implemented a national ban on public gatherings and closed schools as a further emergency measure. China's Ministry of Education (2020) estimates that over 220 million children and adolescents, 180 million primary and secondary students, and 47 million preschool children have been forced to stay home. China's Ministry of Education (MOE) further issued a notice on January 27, 2020 which required the postponement of all types of schools until the start of the 2020 spring semester. In aiming to prevent compromised student health, the policy emphasised the use of the Internet to promote the "School's Out, But Class's On" measure, which is explicated as either "school is closed, but student learning is continuing online" or "online home study" (MOE,2020). This policy denotes the absence of classroom teaching and is introduced only in special circumstances and situations. It is through the use of network platforms that online courses in home-based learning methods can be realised (MOE, 2020). Some scholars believe that Online courses can help to mitigate the impact of COVID-19 on children's learning and alleviate the concerns of parents regarding their children's lack of access to education (Zhao & Jiang, 2020).

However, the concept of a virtual semester is novel in many areas of China, particularly within compulsory education (e.g. Chen,2020; Xu,2020; Guo & Liu,2020). Moreover, this unprecedented period ushered in a long “winter vacation” for Chinese elementary and middle school students, causing some scholars to state that the new epidemic had caused a large-scale and irreversible "home school" situation (Awofala et, al, 2020). which means, apart from to caring for their children’s everyday needs and lives, parents are further required to commit to their children's education (Brain,2020)It is essential that parents exercise flexibility with regards to their plans to find solutions for each child’s strengths and needs and foster their children’s willingness to learn more academic content. Furthermore, they must also withstand the potential psychological emotions of panic, anger, helplessness, and depression, induced by the epidemic (e.g. Yan,2020; Brain, 2020; Zhao.2020). Many Chinese newspapers have reported that Chinese parents have become anxious due to the COVID-19 outbreak and exhibit varying degrees and methods of parental involvement in online education. Therefore, how to aid parents in better fulfilling their new responsibility for their family’s education has become an important topic of social concern (China Youth Daily, 2020).

According to extensive literature, homework can be considered as an aspect of children’s learning which encourages the more direct participation of parents, as an element that parents are familiar with and already engage with at home (e.g., Wilder,2014). Additionally, “with a strong cultural value on effort, Chinese people believe that intensive drilling and practice provided through homework assignments enhance children’s academic performance. Hence, homework is often seen as a crucial part of learning” (Tam & Chan, 2013, p361). Previous research has shown that a lot of time is typically spent on homework by Chinese children (Tam, 2009) and this homework process is helped and supervised by Chinese parents in supporting their children's education. For Chinese parents, this is considered to be an ideal form of

cooperation between family and school (Ho, 2003). In a research report filled out by 37,315 Chinese parents, The home-based learning status of elementary and middle school students during the COVID-19 period was investigated (Lu, 2020). This research revealed that the parents of elementary school students are most active in their children's learning, compared with junior high school and high school students' learning. In further illustration of the study's findings, primary school parents prioritised "homework supervision and correction" (72.3%). Therefore, participating in children's homework may be interpreted as the primary method for Chinese parents to participate in children's home-based learning, during the COVID-19 outbreak (Lu,2020,p5-p9). However, under the given the disruptive impact of this atypical period on the traditional school system, online courses and related online coursework have become the last resort. Audio, video, and practical forms of homework are relatively increasing for elementary school students (Lu, 2020). For the Chinese parent who is accustomed to traditional written homework, the emergence of homework with technological foundations may alter the way that parents participate in their children's homework, fostering new ideas for their participation. Thus, the purpose of this study is to obtain insights into the current practices and perceptions of Chinese parents regarding their involvement in their children's homework, particularly in the wake of the COVID-19 outbreak.

Literature review

Parental involvement in homework

Tasks assigned to students by their teachers for completion outside of school are known as homework. It is generally believed that 'homework has the potential to achieve a wide range of academic and non-academic purposes for students, including practicing

skills, increasing investment in learning tasks, and fostering self-discipline and responsibility' (Tam & Chan, 2011 p.569). In addition, most scholars communicate the integral relationship of homework with school learning worldwide (Epstein, 1988; Rosário et al., 2015). A connection between the school and the family is formed through the implementation of homework, also establishing parent–child and home–school communications (Epstein & Voorhis, 2012). It can urge the direct participation of parents in their children's education (Wilder, 2014), though there is inconsistency in the results obtained from in-depth and frequent investigations on the impact of parental involvement in homework (e.g., Cooper et al., 2008; Wilder, 2014; Hill and Tyson, 2009). Some scholars argue that a positive correlation exists between parental participation and children's academic performance, whilst others suggest that parental participation can cause family anxiety and conflict and is time-consuming (e.g, Patall et al., 2008; Murray et al., 2006; Cooper, 2001;). Dumont et al. (2012) found that the nature or quality of participation is instrumental in determining the positive or negative nature of the relationship caused by parental involvement. In illustration, whilst conflicts between parents and children regarding their homework are negatively related to educational outcomes, parents' ability to offer support for students' self-direction is positively related to achievement. Similar results were obtained by Karbach et al (2013), who observed a negative correlation between academic performance and parental control and strict structure, manifest in excessive control, placing pressure on children to complete homework, and consistent rules in connection to homework and schoolwork. Furthermore, Núñez et al. (2015) found that students' academic performance was positively and negatively linked to their perceptions of their parents' strong control over their homework; the higher the parent's sense of control, the lower the student's academic performance. Pomerantz et al. (2007) showed that children's sense of autonomy and competence and their willingness to achieve in challenging learning situations are decreased by parental control. Conversely, children's sense of

autonomy, sense of competence, and persistence in learning are fortified when children are empowered to solve problems autonomously, with help available if required (Moorman & Pomerantz, 2008). Therefore, parental control can inhibit, rather than support, when students' feelings of autonomy, competence, and relatedness are undermined, whilst parental support can enhance children's academic motivation and performance. It is possible that children and parents have different perceptions of homework involvement (Henry, Mashburn, & Konold, 2007), and children's interpretations of the situations guide their own actions (Bandura, 1993; Luria, 1976).

Previous literature has also considered factors which may determine the degree of parental involvement in children's homework. These include parents' socioeconomic status, parents' motivation, teachers' encouragement of participation in outreach and homework design, and children's learning abilities (e.g., Katz et al., 2011; Epstein and Van, 2001; Cunha et al., 2015). Significantly, one of the strongest motivations for parental participation in children's homework is children's academic performance, such that parents are more likely to participate in the homework process when children do not study well in school (Levin et al., 1997; Pomerantz and Eaton, 2001; Ng et al., 2004; Silinskas et al., 2010). Moreover, parents are more inclined to engage in a controlled form of participation in this instance (Pomerantz and Eaton, 2001; Grolnick et al., 2002; Ng et al., 2004; Niggli et al., 2007). Therefore, children's academic performance may also function to determine or stimulate parents to participate in a specific way (Joyce et al 2017).

Parental Homework Involvement Practices

Parental involvement (Hanafin & Lynch, 2002) takes many forms, but homework involvement is most common (Ritblatt et al., 2002) and is enacted by most parents (Kukk et al., 2015). Previous research has divided parents' participation in their children's homework into eight categories: interacting with teachers; positioning children to complete homework; general homework supervision; response to homework performance; engagement with specific tasks; using model meta-strategies related to "tasks and student knowledge, skills, and abilities", through breaking down tasks into smaller steps; supporting children in their understanding of homework; and establishing a "meta-strategy to help children learn the processes that contribute to achievement" (e.g., Xu & Corno, 1998 ; Hoover et al 2004). In addition, other scholar divided homework involvement to indirect involvement and direct involvement. Hoover-Dempsey et al., (2001) stated Parents' participation in their children's homework is usually indirect; parents will arrange a learning environment that is conducive to studying and provide necessary materials. Moreover, parents will guide and structure the homework process, establishing routines, rules, procedures, and schedules, to support their children's time management (Kukk et al., 2015), minimise distractions, and ensure completion of homework (Wingard & Forsberg, 2009). On the other hand, Parents' direct participation in homework is embodied by face-to-face contact between parents and children in the homework process as well as having the parent have an in-depth participation in the actual homework (Tam & Chan, 2010). Direct parental involvement in children's homework encompasses monitoring, checking, and correcting, in addition to modelling, demonstrating, and communicating with teachers regarding pupils' progress (Hoover-Dempsey et al., 2001). There is considerable variation in parents' homework involvement with a wide range of strategies employed (Tam & Chan, 2010). However, mothers tend to be more involved than fathers (Hutchison, 2012).

Parental Homework Involvement among Chinese Families

As parental involvement can be directly shaped by cultural context (e.g., Cheung & Pomerantz, 2015), parental involvement in Western and Chinese contexts may vary. The influence of Confucian culture on China's perception of education as the most effective avenue for the attainment of social and economic advancement and personal improvement is well documented (Salili, Zhou, & Hoosain, 2003; Tam & Chan, 2009; Stevenson & Lee, 1996). As a result of this influence, Chinese parents view academic success as crucial for their children's futures, which rationalises the extra attention paid to academic performance and achievement (Kipnis, 2011). School-age children in China face persistent pressure in their learning, from kindergarten to high school, and experience fierce academic competition. In this cultural context, homework, which is comprised of drilling and practice mainly, is a crucial tool for facilitating and consolidating learning by Chinese parents (Tam & Chan, 2010). Chen and Stevenson's (1989) cross-cultural study found homework to be the primary out-of-school activity for Chinese children and the object of many hours of devotion every day. Interestingly, compared with their Japanese and American peers, Chinese elementary schoolchildren deem homework to be important, useful, and enjoyable. Other studies also attribute good academic performance among Chinese students to the intensive effort they give to homework daily (Dandy & Nettlebeck, 2002; Stevenson & Lee, 1996).

To reinforce the importance of education, Chinese parents typically provide homework assistance in a tutorial capacity, as well as by monitoring the homework process. These practices emphasise the virtues of hard work, reiterating the importance of effort (Stevenson & Lee, 1996). Cheung & Pomerantz (2011) posit that Chinese parents exert greater control over their children's education and place more importance on their children's errors than American parents. Furthermore, in Huntsinger, Jose, Liaw, and Ching's (1997) study on mathematics learning, Chinese-American parents were shown

to expend more time on homework, structure their children's time to a greater degree, and exhibit more enthusiasm for mathematical activities than their Euro-American counterparts. In the Chinese context, it has been found that home-based involvement is strongly encouraged while school-based involvement is not so customary (Ho, 1995), a phenomenon that may be explained by the reluctance of Chinese principals and teachers to involve parents in school affairs (Ng, 1999). Involvement in homework, however, exists as the preferred form of home-school collaboration among Chinese parents (Tam & Chan, 2010). Due to China's unique cultural traditions, academic achievement is regarded as a "social obligation for children to bring honour to their parents and family" (Salili et al 2001; Chang et al. 2003; Hau & Ho, 2010), where education is viewed as a collective, rather than an individual, responsibility. Academic activities constitute a very large portion of children's daily lives in China, where a child's performance directly reflects the family. Therefore, parents are highly motivated to assist their children with their academic endeavours and generally help with, check, and monitor their children's homework activities, whilst also monitoring potential activities that may interfere with achievement (Stevenson et al., 1990).

Method

Participant

In order to gain a deeper understanding of the parents' views from fewer participants, the primary data will be collected through in-depth and semi-structured interviews. Zhejiang province is located in the southeast of China and ranks fourth in China's per capita gross domestic product. Zhejiang has a permanent population of 58.5 million people (People's Government of Zhejiang Province, 2020), with 6,746 primary schools and 3,540,079 primary school students (Department of Education of Zhejiang

Province, 2018). The province actively utilised the advantages of the informatisation of basic education during COVID-19, using the Internet and informatisation methods to comprehensively organise and implement online education and teaching activities in the province's elementary and middle schools (Zhejiang Teaching and Research Office, 2020). This research sample included 7 parents (one male, and six females), whose children are studying in primary schools in ZheJiang province, and have online class during the outbreak of Covid-19.

Table 1. Demographic information of the participating parents

| Pseudonym | Personal information | | | | Children's information | | |
|-----------|----------------------|----------------------------|-----|--------------------|------------------------|-------|----------------------------------|
| | Gender | Education | Age | Job | Gender | Grade | Number of children in the family |
| Yuan (A) | Female | Undergraduate | 32 | School Doctor | Girl | 1 | 1 |
| Diao (B) | Female | Technical secondary school | 82 | Employee | Boy | 4 | 2 |
| Din (C) | Female | Undergraduate | 34 | Ecommerce employee | Boy | 6 | 1 |
| Kiki (D) | Female | Junior college student | 38 | Nail salon owner | Boy | 1 | 1 |

| | | | | | | | |
|----------|--------|----------------------------|----|-----------------------|---------|---|---|
| Yu (E) | Female | Technical secondary school | 45 | Businesswoman | Bo y | 4 | 2 |
| Yang (F) | Male | Undergraduate | 35 | Middle school teacher | Bo y | 4 | 1 |
| Lily (G) | Female | Junior college student | 36 | Ecommerce employee | Bo y | 5 | 2 |

Procedures

Respondents were recruited via snowballing in 2020 summer holiday, when the first online semester ended. The author approached the parents, explained the purpose of the study and asked for their consent to be interviewed and tape recorded. The interviews explored the parents' perceptions of children's homework; the parents' practice and goals of parental involvement in children's homework; and the parents view that the differences in children's home-based education in ordinary circumstances and during COVID-19. All interviews were completed by the author in August 2020, and the interview was recorded on audio recordings. The length of each semi-structured interview was 30 to 60 minutes. Due to the impact of the Covid-19, all interviews were conducted online.

Data analysis and ethical issue

Interviews were translated from Chinese and transcribed into English. Then, the thematic analysis was used to analyze the data. This study was developed a plan

consisting of 10 codes. The coded data will subsequently be classified into their respective coding categories to enable comparison. During this process, the researcher asked questions such as "how does this tell us how parents perceive their participation?" and "what do these quotes have in common?" to support in-depth explanations of the content and the interviews' development. Thematic analysis captures the experiences of parents and elevates analysis to a higher level of conceptualisation. The development of these themes is expressed using the reporter's first-person perspective, to highlight their views and experiences. In the final stage of analysis, topics are compared, refined, and selected to provide a comprehensive theoretical narrative about parental participation in homework (Auerbach and Silverstein 2003). The names in this paper are pseudonyms, to protect the identity of the participants. The study was approved by the University of Manchester.

Finding

The results of this research are presented in the form of a theoretical narrative, which illustrates the main themes involved in descriptions of parents from mainland China and their children's homework process. Through thematic analysis four themes emerged from the interviews. They are 1) Parents' perceptions on involvement in children's homework ; 2) Practice of parental involvement in children's homework; 3) The differences involved in children's homework in ordinary circumstances and during COVID-19. 4) Parents' suggestions for children online learning

1. Parents' perceptions on involvement in children's homework

In interviews, respondents shared their opinions on the importance of homework and why they need to participate through parental involvement in their children's

homework. Their answers evinced why parental involvement is necessary and important, in their opinion. However, it will also affect the parent-child relationship.

1.1 homework can Contribute to learning outcomes

The participating parents in this study believed in a close association between homework and learning results. Concurrently, parents were able to understand their children's school education and current learning level. Yuan expressed her beliefs as follows: *"Homework will let me know what she is learning in school and can also help her to consolidate the knowledge she has learned....Of course, homework can be closely related to academic performance. Diligence can make up for shortcomings. If you study hard, your academic performance will not be bad."*

1.2 Parent involvement in homework can Improve children's academic performance Contribute Learning habit

During this interview, when I asked "Do you think involvement in your child's homework is helpful to your child's academic performance?" The answer was always 'yes'. especially in the period of Covid-19 outbreak. Yuan gave the following detailed explanation about the same, *"my participation in her tutoring is definitely helpful to her study. Under my guidance, she must be able to find her mistakes in time, correct them, and her grades will definitely improve."*

The Chinese parents interviewed in this study posited the belief that the cultivation of learning habits is very important in the lower grades of elementary school and involvement children's homework can cultivate children's learning habits. Lily discussed her thoughts on study habits as follows, *"I slowly discovered that homework is actually related to study habits. Study habits are more important than grades. His teacher once said to me that good study habits will affect one's lifelong learning."*

1.3 Children need to be pushed by their parents to do their homework

According to respondents' feedback, parents doubt their children's ability to concentrate on their homework and think they're easily distracted, especially during COVID-19.

Kiki said: *"No child is really willing to do homework. He doesn't know the purpose of homework. He doesn't think about the benefits of doing homework like we do, or how helpful it is to his studies. He is still very young and so there is a lack of self-management awareness and he will continue to be reluctant about it."*

Parents also mentioned that students in lower grades want their parents' company when they do their homework. Kiki said that her son would act like a baby when hoping for her help. Yu also mentioned, *"before my daughter reached the third grade of elementary school, she asked me to help her with her homework."*

1.4 Conflict between parents and children will increase

Some scholars stated that parental participation is time-consuming and can cause family anxiety and conflict (Murray et al., 2006). This is in line with the data received in this interview. All parents say that the parent-child relationship with their children will not increase due to participation in the children's homework guidance, and that there will be more quarrels due to contradictions and conflicts arising during the tutoring process which could even destroy the parent-child relationship. Parents faced the problem about when they involve their children's homework, the quarrels will be increase. Yang said, *'the parent-child relationship has not improved at all, not at all. On the contrary, because my tutoring homework will have disputes, he will think that he is right. If he doesn't listen, I will be very angry. I will say a few words to him, which will cause controversy.'*

Kiki has a similar statement, *'When tutoring homework, there will be disputes because my son is absent-minded and too perfunctory, and I will get angry which inspires some conflicts.'*

1.5 Fierce competition

The notion that Chinese students face fierce competition in their studies has been supported in multiple studies. This means that they have to work extra hard in order to catch up with the rest of the students. Yu 's daughter is one of the top three students in her class, with all grades above 95. She also expressed the pressure brought by this fierce competition: *"The new policy requires examinations to enter a better junior high school, so we are very worried and cannot relax"*.

"Do you think good academic performance is closely related to your child's future?" the parents were asked and most of them gave yes as an answer. They were also asked whether they think their children's grades make them and their family feel honourable but answered that although they are proud of their good performance and excellent results, the grades are still the children's business. For example, *'I think good study grades are certainly related to the future. As I said now, if your grades are good, you will have more choices, broader employment directions and more opportunities in the future. I don't think her good grades can be called family glory, but I will definitely be very happy. I think learning is her own business, we just hope she will be happy in the future.'* (Yuan)

2. Practice of parental involvement in children's homework

According to the data collected during this study, the methods parents adopt in participating in their children's homework can be divided into two forms: direct and indirect. As children's grades improve, the time parents dedicate to tutoring their children is reduced. In majority of families, the female parent assumes primary responsibility for tutoring the child.

2.1 Direct involvement

From this research, direct involvement was found to be the most common form of parental involvement in homework. Diao commented on her parental involvement as follows, *“usually it is mainly to tutor the child's homework. If the child encounters any problems, I will help him answer questions and solve problems. I usually help him to correct the homework. Most of the time the teacher asks the parents to help mark homework.”*

Conversely, Yuan explained, *“our teacher has no requirements for correcting homework, but I still correct her homework myself”*. For major subjects, especially Chinese and mathematics, parents may even assign extra homework to their children. Yuan, for example, said, *“for mathematics, I give her some oral calculation homework and for Chinese, I give her some calligraphy and reading... Of course, I will personally supervise and correct these assignments.*

2.2 Indirect involvement

During the interviews, parents also mentioned participation in their children's homework without face-to-face parent-child contact, known as indirect participation. For example, Some parent interviewees send their children to after-school tutoring classes. Din's son is a sixth-grade student at elementary school and she insisted, *“his homework is too difficult and his father and I are unable to help with it, so we let him*

participate in after-school tutoring classes and complete his homework during the tutoring class.”

2.3 The length of time spent by parents participating in their children's homework

This study has found that as the child's age increases, the length of time parents devote to participation in their children's homework decreases. The parents of first-grade elementary school students in this study, expressed that they choose to supervise and tutor all of their children's homework.

“I need to supervise and support him in his homework. If he cooperates, two hours will be enough time to complete it. If he procrastinates, it will take four hours. My son hates maths, so maths takes up half of his time.” Yu said; *“Before my daughter reached the fourth grade, I participated in her homework completely. There are three subjects, Chinese, mathematics, and English, which take about two to three hours per day. But now she doesn't want me to do her homework with her. so it only takes half an hour for me to help her proofread. Her maths homework is not difficult; I only need to help her look at it for ten minutes and then she can do it herself very quickly. We spend the longest time on Chinese.”*

2.4 Superior involvement in children's homework from mothers

Five mothers who participated in this interview said that they assume primary management of their children's schoolwork and help them with homework, while their husbands rarely participate. Din and Yang, however, believe that there is an equal division between parents in terms of homework involvement. Din discussed the division of participation as follows; *“My child is at school the majority of the time, so most of his homework is done in school or in extracurricular tuition. If he comes home and has a little homework left, his father and I will supervise him. If he doesn't know how to do*

his English and Chinese homework, I will help him to solve, and his father will help him to solve maths and science problems.” Yang also explained how he and his wife both assist; “My wife is a Chinese teacher in an elementary school, so the children’s Chinese homework is all tutored by my wife. Our family has a second child, so my wife has to take care of the younger son in addition to correcting her students’ homework, which is quite time consuming. I’ll help her with the load and it just so happens that I can also help him with his homework problems.’

3.The differences involved in children’s homework in ordinary circumstances and during COVID-19

Interviewees also expressed in the interview that their participation in homework for parents during the period of COVID-19 is different from that in the ordinary. The study also found that during the covid-19 period, even if parents are tired of sudden home-schooling, the role of parents in participating in their children's homework has increased.

3.1 Must go through an adjustment period

With the outbreak of Covid-19, students and their parents were forced to be trapped at home. This may be the longest winter vacation they have spent together. In the interview, the interviewees said that their inevitable need to go through a period of adjustment with their children.

Yuan said *“Of course, we must have an adjustment period. In addition to the pressure of our parents, such as worrying about the country and the children's schoolwork, my daughter often complains that she wants to go back to school and want to play with classmates. Then she stayed at home and I easily hoped to discipline her more, so we*

would have conflicts. At first there were frequent quarrels, but after the first week, it gradually improved.'

Changes in learning equipment also make parents face an adjustment period. Yu, who is the oldest parent in these seven respondents, has to face the problem of adapting to new learning devices, such as WeChat or Dingding applications, which makes her feel a bit difficult. *'For me, these devices are a little troublesome. At first, I didn't know how to use them, so I was very annoyed. Then I was worried that my daughter would be distracted by these electronic devices and anxious about when school could start. The performance has declined. So, at the beginning I often quarreled with my daughter,'* she said.

3.2 Increased participation in learning

During this period, parents not only have to take care of the students' daily life, but also make sure they supervise the students' learning. Parents who participated in this interview complained that online classes during the epidemic had to increase their supervision and time for their children's learning. For instance, Kiki said *'During the Covid-19 period, I had to supervise the whole process of his online class and doing homework because I was worried that he would be distracted. I need to remind him when to do his homework. I think this period of time is much more tiresome than his normal school life. At the same time, the amount of his homework has also increased, so I accompany him to study all day long.*

In addition, some parents worry that their children's poor sitting posture when using electronic devices will cause vision loss, so they will supervise their children's learning more frequently to remind them to maintain a good sitting posture. Yu said, *'The online class hurts the eyes too much, and my daughter's eyesight is not very good originally.*

After a day of online class, there is still homework to do, so I will see her studying more often than usual and remind her to keep her distance from the computer.’

3.3 Parental involvement in homework is a compelling choice during Covid-19

During the epidemic, in the eyes of the parents interviewed, parents' participation in their studies is a compelling choice. Many parents believe that if there is no parental involvement during the Covid-19 outbreaks, the children's performance will decline very seriously.

Yu said, *‘I am also very anxious that my child's performance will get worse without the teacher's assistance and supervision during the online class, so I also supervise the children more frequently. After the start of school, our child usually has had good grades and has not been greatly affected, but it is true that many of her classmates have regressed in their grades. I believe that parents must participate more in their children's learning during the online classes.’* Lily said that during the epidemic, she did not supervise too much because she practiced a hands-off education with her children and let him do it by himself. However, the children's grades dropped very seriously after school started.

4. Parents’ suggestions for children online learning

During the interview, the interviewees also put forward their opinions on online learning, respectively, in terms of learning content, use of electronic products, and communication with teachers.

4.1 Learning content

The interviewees in this interview all pointed out that during the online learning period, the children's learning content is much scarce compared to the school learning. Yuan said, *'During the online class, the child's lesson is only ten to twenty minutes, and the content must be less than what she did in school. The content of their homework can also be more interesting. For example, The math homework can also be not just a single paper homework, but also a form of understanding currency through role-playing with parents.'* Lily also said that the content of learning has become less, and with the suspension of tutoring classes, the amount of homework for the child is also less. She added that it can be increased moderately.

4.2 electronic screens

In this interview, the parents mentioned that they would be worried during the online class, because long-term online learning and online homework will cause the child's eyesight to be damaged. As a physical education teacher, Yang said, *'Now we have a policy proposal to hope that children can have bright eyes and teeth, and that bright eyes, as the name suggests, is to protect the eyes. Online lessons have a great impact on eyesight. My children have very poor eyesight. Because online lessons have increased myopia by 50 degrees, this damage to eyesight is irreversible.'*

4.3 Reduced communication between teachers and students

Many parents say that during the online class, their children's online classes are recorded and broadcasted by a famous teacher in the province and city instead of being broadcasted by their own school teacher. Diao also said, *'During the online class, in*

fact, there is very little direct communication between teachers and children. We also hope that there is no channel for teachers and children to communicate and understand, so that teachers can master the children's Learning situation. ' In addition, Yu also mentioned that because online class children rarely have the opportunity to play with peers of the same age, they are also worried that their social skills will be affected.

Discussion and conclusion

The results of this study show that parents have always agreed that homework is an important part of learning, especially in the unique educational background of China. Parents believe that homework is mainly to perform learning functions, including promoting the absorption of learning content and consolidating learning and the development of learning skills and cultivating good learning habits (e.g., Tam & Chan, 2010; Painter, 2003). And the purpose of homework is continuous practice (e.g., Airi, 2014; Eren and Henderson 2011), Thus, if parents feel that the amount of homework assigned by the teacher is not enough, the parents will allocate extra homework for their children. And when explaining why parents attach so much importance to homework and academic performance, this answer can be summarized in the fierce competition in Chinese society. In the special background of China, parents will associate their children's future salary and social status with their children's academic performance (e.g., Ho, 2010; Yang, 2005). In addition, from this discovery, it can be seen that parents are also aware that outstanding academic performance also means that children will have more career choices in the future and a variety of fields to venture in. However, unlike the previous literature stated that Chinese parents believe that the children's excellence is the honor of the whole family (e.g., Yang, 2005; Tam

& Lam, 2003), modern parents believe that the children's good grades are their own business, and they are just to help their children have a better life.

Meanwhile, In the research results, all parents believe that their participation contributes to their children's learning outcomes and improves their academic performance, especially during the Covid-19 outbreak. Because the involvement of parents can improve students' understanding of learning content, increase their concentration in supervision, cultivate good learning habits and thereby improving their academic performance (Hoover-Dempsey, et.al., 2001; Pedro et al. 2015; Cooper et al. 2000). However, it can also be seen that parents have distrust of children's independent learning. Previous studies have shown that, many students get their motivation from the fact that they want to do their homework in order to please their teachers or even parents and to avoid being punished (Corno, 2000; Warton, 2001). However, these students do not see the importance of doing the homework, neither do they like the entire homework process. Therefore, from a parent's point of view, children may be more distracting and require more supervision. Furthermore, During the period of COVID-19, when the teacher's role began to weaken and the normal classroom model gradually became homeschooling, parents believed that they should assume the responsibility of the teacher's "supervision" and "guidance". The findings of this study reveal two main practices that Chinese parents use to participate in their children's homework. Direct participation entails supervising the completion of homework, checking homework and explaining learning materials; while indirect participation entails parents encouraging their children, establishing children's daily learning habits, and providing children with after-school tutoring classes.

It is worth noting that in this study, it appears that in most families, mothers still play the role of participating in children's learning. This is consistent with what previous

scholars stated that “We know considerably more about mothers’ and children’s literacy than about fathers and children ...” (Gadsden, 2012, p. 164). Furthermore, “published studies on fathers and fathering include mothers and mothering in the title about five times as often as the reverse” (Roggman et al., 2013, p. 190). Moreover, this study has also confirmed the previous research that as the child’s age increases, the length of time parents devote to participate in their children's homework decreases (e.g., Lu,2020). The reason is that the parents think that the children in the lower grades lack self-control, and they will actively seek the company of their parents by themselves, while the children in the upper grades hope that they have independent space and the ability to complete their homework independently. However, during the coronavirus outbreak, all of the interviewees said that in addition to increasing the time they spend on their children's homework and study, they also increased the number of times they supervised their children's study and homework.

At the same time, the Chinese parents interviewed in this study are also worried about their parent-child conflicts caused by homework. Therefore, it shows that if parents fail to fully consider their children’s autonomy development and development needs, parents’ homework participation may cause damage. These types of parent participation should also be customized according to the characteristics and grade of the child (Tam & Chan, 2010). In this regard, these findings support Li (2007)’s conclusion that not all family capital investments are beneficial to children’s education; only investments that meet children’s specific development needs can be transformed into learning success.

During the outbreak of Coronavirus, many online courses were recorded and taught by famous teachers from all over the country instead of the students' own teachers. Meanwhile, most students do not have electronic devices, thus teachers communicate directly with their parents rather than students. Therefore, the parents who participated

in this interview all pointed out that the communication and interaction between children and teachers have decreased. A lot of literature shows that high-quality teacher-student relationships help elementary school children's social and cognitive skills development (e.g., Matheson et al, 1994; Pianta, 1999). At the same time, the researchers also emphasized the importance of teacher emotional support for student participation and motivation (e.g., Elder et al, 2004; Hamre and Pianta, 2005). In addition to teaching support, teachers also provide children with extra emotional support. These beliefs help children participate in academic activities and improve their level of achievement over time (Wentzel, 2004). At the same time, parents also believe that online classrooms lack classroom interaction. Non-interactive classrooms often fail to mobilize children's enthusiasm for thinking, stimulate children to think positively, and allow children to listen to the class as bystanders. It's hard to think positively. If such a state continues, children's thinking will become lazy, and learning will become more passive (Cao et al, 2020). Therefore, interviewed parents put forward some suggestions, hoping that their children's own teachers can participate in online classrooms and increase teacher-student interaction during online classrooms, which is conducive to absorbing children's knowledge and teachers' understanding of children's Learning situation. Meanwhile, parents hope that the teacher can set aside time to answer and tutor the children's homework to strengthen the communication between teachers and students.

Parents also report that in online learning processes, children inevitably have to face TV, computers and mobile phones all day long. These tasks are not only too heavy for them but also limit outdoor activities for them. In addition to this, so many parents are worried that long-term computer screen study may seriously damage children's eyesight (Xu,2020). Therefore, schools and governments should consider the problem of online classes affecting children's vision, and reasonably arrange the best time for online

classes and perfect resting time, which will also help children absorb and understand the knowledge taught better (Cheng,2020).

Limitation

One of the most challenging part about carrying out further studies and research on this area of study is the sample size that is likely to be considered in such a research. Further research should include parents from a wider area meaning that the sample size in consideration should be quite large. Zhejiang Province, as an economically developed area in China, may receive different parental educational concepts from other regions.

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