

Reproduction Mechanism of Teachers' Time Dilemma in Primary Schools

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Abstract: *Time is a kind of existence with social significance that has become an important factor affecting teachers' professional development. This study explored teachers' time dilemma in primary schools by using qualitative research methods. It is found that the unique institutional design and cultural tradition in China reproduce the time dilemma. Specifically, the top-down institutional logic, the institution of title promotion, and the institution of labor reward reproduce teachers' time dilemmas from outside to inside; the cultural traditions of "respect for teachers" and "the man goes out to work, while the woman looks after the house" reproduce teachers' time dilemma from inside to outside. Two paths of institutional reconstruction and cultural transformation were proposed at the end.*

Keywords: *teacher; time dilemma; reproduction mechanism*

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1. Introduction

Time is a fact of life, which is deeply embedded in our lives and governs our biological rhythms. During the last few decades, the study of time has fueled a rapidly growing exchange of ideas between different disciplines. It can be said that time has become the forefront of contemporary academic circle. However, social sciences have remained substantially isolated from time-related concerns in other fields (Adam, 1994). Giddens (1984) criticized social scientists for neglecting the issue of time-space, and pointed out that the time-space constitution of social systems is the heart of social theory. In Giddens's view, the conception of time is not just the measurable clock time, and social scientists should construct their thinking around the modes in which social systems are constituted across time-space (Giddens, 1984). In other words, understanding the social meaning of time is the key to grasp the social structure and its historical change.

In the field of education, time is gradually becoming one of the themes in the analysis of educational reform (Fullan, 1982). With the implementation of various educational reform measures and the widespread use of science and technology, the time of teachers is constantly occupied, divided and fragmented. Teachers are faced with a time dilemma. Although their working hours have been extended, the time actually spent on teaching has been shortened. It is more serious among primary school teachers in practice. Exploring the time dilemma faced by teachers in primary school is important, which can help teachers devote more time to teaching. Therefore, using qualitative research methods, this study investigates the reproduction mechanism of teachers' time dilemma in primary school. The findings can enhance our understanding of the issue of teachers' time and provide implications for policy makers and school leaders to promote professional development of teachers and improve the quality of teaching.

2. Literature Review

Many researchers have discussed the time dilemma faced by different types of school teachers, including college and university teachers (Todorovsky, 2014; Li, 2017; Cao, 2020), primary and secondary school teachers (Xu, 2018; Zhang and Guan, 2019; Hori et al., 2020; Maas et al., 2021), and preschool teachers (Xia and Ye, 2020; Yao, 2021). Bubb and Earley (2013) noticed the issue of teachers' time in special school. In previous studies, the time dilemma of teachers in primary and secondary school is the most concerned issue in educational reform. Some scholars have explored the conception of time of primary and secondary school teachers (Hargreaves, 1990; Watts and Castle, 1993; Cambone, 1995; Ding, 2009). According to them, the different understanding of time between teachers and educational reformers may be the reason why the educational reform measures are suspended or resisted by teachers. Gender, title, salary, teaching performance, and emotional exhaustion have an effect on teachers' time (Qin, Zhao and Zeng, 2017; Tong, 2017; Du and Liu, 2020; Kuang and Zhang, 2020; Maas et al., 2021). Tong (2017) pointed out that solving the time dilemma of teachers requires the joint efforts of the government, schools and teachers. The effective distribution of rewarding salary is also an effective way to address the time dilemma of teachers (Du and Liu, 2020).

In terms of research methods, the most of existing studies have adopted theoretical

research methods or quantitative research methods. Qualitative research methods have been ignored. Due to the limitation of research methods, the reproduction mechanism of teachers' time dilemma has not received more attention. Therefore, this study uses qualitative research methods, which has unique advantages in revealing process and mechanism of things, to obtain a more comprehensive understanding of the reproduction mechanism of time dilemma of teachers in primary school.

3. Methodology

This study adopts qualitative research methods, including interview and observation, to explore the time dilemma of primary school teachers and its reproduction mechanism. It aimed to address three questions: (1) What is the time dilemma faced by teachers? (2) What is the reproduction mechanism of this time dilemma? and (3) How to solve the time dilemma faced by teachers?

3.1 Participants

The participants of this study were from 2 primary schools. These schools were selected for two reasons. First, the numbers of schools in county, town and rural areas account for more than 80% of the total number of schools in China, and the schools in county areas lead the development of basic education in county, town and rural areas. Second, these two primary schools are county-level primary schools and both have many typical characteristics of county-level primary schools, such as the size of school, the quality of teachers, and the number of students.

The participants comprised 14 teachers and 2 leaders. 12 participants were from G primary school, which is located in the north of China. 4 participants were from Q primary school, which is located in the south of China. 2 leaders were both from G primary school, one was the vice principal and the other was the director of the teacher development center. Except that the director of the teacher development center of G primary school is male, all others are female. The information of the participants is shown in Table 1.

Table 1. Information of the participants.

No.	School	Position	Gender	Subject	Code
1	G	Teacher	Female	Math	G-TF01
2	G	Teacher	Female	Chinese	G-TF02
3	G	Teacher	Female	Math	G-TF03
4	G	Teacher	Female	English	G-TF04
5	G	Teacher	Female	Science	G-TF05
6	G	Teacher	Female	English	G-TF06
7	G	Teacher	Female	Math	G-TF07
8	G	Teacher	Female	Chinese	G-TF08
9	G	Teacher	Female	Chinese	G-TF09
10	G	Teacher	Female	Math	G-TF10
11	G	Leader	Female	Chinese	G-LF11
12	G	Leader	Male	Math	G-LM12
13	Q	Teacher	Female	English	Q-TF13

14	Q	Teacher	Female	Math	Q-TF14
15	Q	Teacher	Female	Chinese	Q-TF15
16	Q	Teacher	Female	Chinese	Q-TF16

In addition, twenty lessons in G primary school were observed and the information is shown in Table 2.

Table 2. Information of the lessons.

No.	Topic	Subject	Code
1	Factor, prime number, composite number	Math	L1
2	Decomposed prime factor	Math	L2
3	Numbers within 100 million	Math	L3
4	Numbers over 100 million	Math	L4
5	Landing performance on time	Chinese	L5
6	Interview from son	Chinese	L6
7	A paradise of birds	Chinese	L7
8	My comrades-in-arms Qiu Shaoyun	Chinese	L8
9	Grateful heart	Chinese	L9
10	Frontier poems	Chinese	L10
11	Walk in the Yellow Sand Hill at night	Chinese	L11
12	Ode to wintersweet	Chinese	L12
13	Foot of creeper	Chinese	L13
14	Bi Luo Chun tea	Chinese	L14
15	Diving	Chinese	L15
16	Watching the tide	Chinese	L16
17	What do they do?	English	L17
18	What do they like to do?	English	L18
19	In the city	English	L19
20	I'm lost	English	L20

3.2 Data Collection and Analysis

The authors have conducted research at G primary school since 2016, and have established good relationships with the school's teachers and leaders. At ordinary times, the authors also communicate with them via e-mail, telephone and other forms. The empirical data of Q primary school mainly play a complementary and comparative role.

The qualitative methods of semi-structured interview and non-participatory observation were used to collect the empirical data. The interview outline and observation scale were formulated before the investigation. The semi-structured interviews were conducted with 16 participants. Each interview lasted about 30 to 40 minutes. The non-participatory observations were conducted in the classroom. The characteristics of teachers' behavior were mainly observed. All the interviews and observations were recorded by audio or video and transcribed verbatim after the investigation.

The data of interviews and observations were transcribed by the authors and analyzed through open coding, axial coding, and selective coding (Corbin and Strauss, 2015). To ensure the validity, the coding process was conducted by the three authors separately, and the consistency of the analysis results was checked by the three authors together.

4. Results and Discussion

4.1 Time Dilemma of Teachers

As previously mentioned, there is a time dilemma faced by teachers in primary schools that the working hours have been extended, but the time spent on teaching has been shortened. After-school service is a good example. In order to promote the healthy growth of students and help parents solve the problem of picking up and dropping off students on time, China's Ministry of Education issued the "Guidance on After-school Service for Primary and Secondary School Students" in 2017, which put forward requirements for primary and secondary schools to provide after-school services. Local education departments subsequently issued notices.

Both G primary school and Q primary school started to implement after-school services in the second semester of the 2020-2021 academic year. After the implementation of after-school services, students' time after school was one hour later than before, and teachers' working hours were extended by one hour. Many teachers in G primary school reported that the time available for teaching was now tighter than before:

"If I stayed at school for after-school services, I would have to go home to prepare for the next day's class, and I would be even more pressed for time than before." (G-TF03)

"If there were no after-school services, I could prepare for the next day's class at school and go home to spend more time with my family. But now there are after-school services. I am busy at school and have to work overtime when I get home." (G-LF11)

Teachers at Q primary school also feel similarly pressed for time:

"I could have finished work at 4:30, and I could have communicated with the teachers in my group for tomorrow's teaching plan, or tomorrow's collective preparation of teaching. But now (implement after-school services) I have no time to exchange with others. Teachers would rather have a good rest and have more energy for teaching." (Q-TF13)

"Now we can only find time to communicate with others." (Q-TF16)

The preceding quote revealed the time pressure of teachers, which was also reflected in their teaching:

T: What do we use to write numbers when we are learning the knowledge of numbers within 10 thousand?

S: (teacher waits 2 seconds)

T: What did we use to write the numbers? Think about it. Who can remember?

S: (teacher waits 3 seconds)

T: We used the digital sequence table. (L3)

** Use T and S to denote teacher and student.*

In this piece of teaching, this teacher left very short time for students to think and answer questions during teaching. When the students were unable to respond immediately,

this teacher did not take the time to guide students to think, but chose to give the answer directly. It can be seen that teachers' demand for time is very urgent. Although teachers' working hours have been extended by one hour after the implementation of after-school services, the time teachers spend on teaching has not increased, but decreased. This is the time dilemma faced by the teachers in primary school.

4.2 Reproduction Mechanism of Teachers' Time Dilemma

The unique institutional design and cultural tradition in China may account for the reproduce of teachers' time dilemma in primary school. The institutional design reproduces teachers' time dilemma from outside to inside, while the cultural tradition reproduces teachers' time dilemma from inside to outside. In the following section, the reproduction mechanism of teachers' time dilemma will be fully discussed.

4.2.1 Institutional Design

The effect of institutional design on teachers' time dilemma is mainly reflected in three aspects: the top-down institutional logic, the institution of title promotion, and the institution of labor reward.

(1) The Top-down Institutional Logic

In fact, a large number of administrative affairs occupied teachers' time, which was very common in G and Q primary schools. For example, a teacher received many different notices throughout the day that are not related to teaching:

Notice 1: Teachers without classes and all art teachers must participate in the 100-meter scroll exhibition of "Learning Outline of Xi Jinping's Governance in the New Era". Each class of grades 2, 3 and 6 should select 10 outstanding students or calligraphy enthusiasts to participate. Head teachers of grades 2, 3 and 6 should arrange for students arrive at the playground on time for the activity.

Notice 2: In order to standardize the writing of Chinese characters, the woodpecker action is carried out throughout the school. Each class carries out woodpecker action (parents can be invited to participate), write a report and send it to the group of head teachers. Deadline for submission: Sunday.

Notice 3: Each class of grades 3 and 6 should submit two handicrafts and four pieces of calligraphy. Deadline for submission: next Monday.

Notice 4: Each teacher takes a photo of students being tutored and submit it to the group leaders of teaching research. Photo requirements: 1) Students' clothes can be winter uniforms or summer uniforms (previous photos can be used); 2) Grade 2 takes individual tutoring photos, grade 3 takes group tutoring photos, other grades are optional. (G-TF01)

As indicated above, teachers need to do many tasks that are not related to teaching every day. These tasks are messy and tedious, which not only take a lot of teachers' energy, but also cut teachers' time into multiple pieces, so that teachers can't devote themselves to teaching. When there is a conflict between these administrative tasks and daily teaching work, teachers usually give priority to administrative tasks. This can be confirmed by the authors' interviews with teachers of G primary school:

You must put the administrative tasks in the first place. Besides, you have to complete the tasks assigned by leaders. (G-TF10)

The reason for this phenomenon is that the top-down institutional logic. In China, many education policies and educational reform measures follow a top-down implementation path, from the Ministry of Education to local education departments, and finally to schools and teachers. Teachers are policy implementers and can only passively accept the tasks assigned by their superiors. As a teacher of Q primary school said:

"The pressure is coming down in layers. The bureau puts pressure on the principal, and the principal puts pressure on the teachers." (Q-TF14)

Teachers' initiative and enthusiasm are suppressed by being in a long-term, trivial and stressful environment. As a result, when teachers were asked about the feelings of participating in after-school services, they did not give a positive response:

"Anyway, it's the arrangement of the school. You have to do it." (G-TF08)

"If the school didn't check, I would have left." (G-TF09)

In a word, the top-down institutional logic is an important reason for reproducing teachers' time dilemma.

(2) The Institution of Title Promotion

In China, teachers' title promotion mainly depends on teaching performance, papers, and projects. The administrative affairs undertaken by teachers are not included in the conditions for title promotion.

"Most of young teachers will be assigned to do a lot of administrative tasks their own profession will be deserted. No matter how much work you have done or how many honors you have won, it will be useless when it comes to the evaluation of professional titles." (Q-TF15)

As a consequence, some teachers indicated that they would prefer to take on teaching rather than administrative affairs:

"It is better to take two classes than to do administrative work." (Q-TF14)

Therefore, the institution of title promotion is also one of the reasons why teachers faced with time dilemma.

(3) The Institution of Labor Reward

Teachers who participate in after-school services will receive some reward. But both G primary school teachers and Q primary school teachers believe that the rewards given to teachers are not enough.

"It will be reflected in the performance salary, but not much. The enthusiasm will be somewhat affected." (G-TF01)

"The key problem is that overtime does not get the material satisfaction I'm willing to do it if more pay for more work." (Q-TF16)

The preceding quote revealed that teachers are not satisfied with the rewards they received. With the development of capitalism, time is gradually commoditized and becomes as important as money. When the reward is less, teachers are not willing to give their time, and their initiative and enthusiasm will not be stimulated.

To sum up, the institutional design, including the top-down institutional logic, the institution of title promotion, and the institution of labor reward, reproduces teachers' time dilemma from outside to inside.

4.2.2 Cultural Tradition

The effect of cultural tradition on teachers' time dilemma is mainly reflected in two aspects: "respect for teachers" and "the man goes out to work, while the woman looks after the house".

(1) "Respect for teachers"

No matter in G primary school or Q primary school, the sentence authors heard most often was, "teaching is a job of conscience". When it comes to the fact that teachers work hard but are not paid much, many teachers said:

"A teacher should be worthy of his students, students' parents, society and himself. Teaching is such a profession that you have to spur yourself on with your conscience." (G-TF04)

"Teachers should take the development of students as the main goal, and should always remind themselves to love students, work and life." (G-TF06)

"The teacher is a conscientious worker." (Q-TF15)

This phenomenon is related to Chinese cultural tradition of "respect for teachers" since ancient times. "Heaven-Earth-Emperor-Parent-Teacher" have been the objects of worship of the Chinese people for a long time. They are the basis for the legitimacy and rationality of ethics in the traditional society, and also the uniqueness of Chinese culture from western culture. Because teachers have a high position in people's hearts and are fully respected, the teaching profession is also given sanctity. Hence, when teachers fall into the "time dilemma", they will still consciously work overtime and squeeze in time to prepare lessons, communicate with other teachers, and check students' homework, which forms a vicious circle and causes them to fall deeper and deeper into the "time dilemma".

(2) "The man goes out to work, while the woman looks after the house"

Gender is also an important factor in the "time dilemma" faced by teachers. It is well known that the proportion of female teachers in primary schools is very high. Many female teachers indicated that they believed that a major cause of time pressure came from their families:

"The most obvious change after the after-school services is that there is less time to take care of the family, especially when someone in the family is sick." (G-TF02)

"Female teachers are more tired than male teachers because they have to take care of their families." (Q-TF14)

In contrast, male teachers believe that:

"It doesn't really affect my life." (G-LM12)

This phenomenon is related to Chinese cultural tradition of "the man goes out to work, while the woman looks after the house". Men and women have different roles and responsibilities in society and family. However, with the development of economy and the advancement of society, women began to have their own career. This has led to the fact that most female teachers have to taking care of their families when they return home after finishing their work. Therefore, the time of female teachers will become more and more tight, and their the "time dilemma" can be reproduced.

To sum up, the cultural tradition, including "respect for teachers" and "the man goes out to work, while the woman looks after the house", reproduces teachers' time dilemma

from inside to outside.

5. Conclusion

This study analyzed the reproduction mechanism of teachers' time dilemma in Chinese primary schools by using qualitative research methods. It is found that although teachers' working hours have been extended, the time teachers spend on teaching has not increased. This time dilemma of teachers is not conducive to teachers' professional development and the improvement of education quality. The unique institutional design and cultural tradition in China reproduce the time dilemma. Specifically, the top-down institutional logic, the institution of title promotion, and the institution of labor reward reproduce teachers' time dilemmas from outside to inside; the cultural traditions of "respect for teachers" and "the man goes out to work, while the woman looks after the house" reproduce teachers' time dilemma from inside to outside. Institutional reconstruction and cultural transformation are the paths for solving teachers' time dilemma.

On the one hand, the unreasonable institutional design makes teachers unable to have a complete time to carry out teaching related work, which is an important reason for teachers' time dilemma. Thus, a sound system should be established to reserve more teaching time for teachers. Firstly, combine the top-down and bottom-up institutional logic and pay attention to the suggestions of front-line teachers to stimulate teachers' enthusiasm and initiative. Secondly, improve the efficiency of administrative affairs by enhancing information technology, so that teachers can get rid of administrative tasks and devote more time and energy to teaching. Finally, improve the rewards of teachers and ensure the fairness of distribution.

On the other hand, culture is a deeper basic assumption and belief. Cultural transformation is important for historical development and social transformation. The cultural tradition of "respect for teachers" embodies the nobility and sanctity of the teaching profession and should be promoted in modern society. The cultural tradition of "the man goes out to work, while the woman looks after the house" needs to be changed. There should be a community-wide call for men to take more responsibility for the family in order to gradually promote gender equality within the family, which will help address the issue of gender equality in society. So that female teachers can escape the time dilemma and better balance work and family.

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