



Students' pressure, time management and effective learning

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Abstract

Purpose – This paper aims to survey the status quo of the student pressure and the relationship between their daily time management and their learning outcomes in three different types of higher secondary schools at Shenyang, the capital city of Liaoning Province in mainland China.

Design/methodology/approach – An investigation was carried out in 14 higher secondary schools (HSS) located in five districts of Shenyang. Both qualitative and quantitative approaches were used, such as interviews and questionnaires.

Findings – The important findings include: the students pressure sources in three different types of higher secondary schools, the strongest pressure felt by the HSS students in China was the pressure from national college entrance examinations (NCEE), the rank orders of other pressures were pressures from parents, from society, from others, from schools, from teachers. The findings also include the relationship between student time management (time for sleep, time for getting up, time spent at schools, time for doing homework) and the students learning, the tests frequency in different types of HSS, the relationship between the tests frequency and student learning outcomes, etc.

Originality/value – To survey the HSS students' pressure causes, to explore the relationship between their time management and learning outcomes, to find out the effective learning factors and strategies will benefit students, teachers and schools worldwide.

Keywords Students, Time-based management, Secondary education, Learning, China

Paper type Research paper

Introduction

Since 1978, education in China has achieved a great progress, however, its overall quality has kept being criticized. Education in China is facing great challenges, particularly in its higher secondary education. One of the greatest challenges is how to enhance the school quality at the same time how to reduce the pressure felt by the students, teachers, and schools at this crucial stage. Different from the England educational system which has three or four unified standardized tests from primary schools to secondary schools, for instance, tests at a child's age at 11, 14 and 16, China, in recent years, has only one national (in some provinces, only provincial) test at the end of the higher secondary schools (HSS), that is, at the end of a child's 12 years' schooling. This test is named "gaokao", which means a yearly held "National College



Entrance Examination" (NCEE). It is a very crucial and important test. Whether a student can be enrolled into a college or a university depends on his/her NCEE test scores. Therefore, it is a common knowledge in China that students at the HSS have the greatest pressure during their whole schooling. The importance of the HSS has been described as the root of a country's long-term development and the foundation of a nation's economic competitiveness. Therefore, how to improve the quality of higher secondary education and meanwhile how to reduce the pressure of the students, teachers and schools becomes an important and hot research topic in Chinese education. Concerning the relationship between school quality and pressure, it is normally believed that to enhance quality needs to put greater pressure on students. To reduce students' pressure requires lowering the standards or quality. Therefore, "enhancing quality" and "reducing pressure" seem to be opponents. It is paradoxical. How to solve this paradoxical problem, which involves and affects millions of families, students, teachers and schools becomes a great challenge for researchers worldwide.

According to Fullan (1999) and Miles (1998), any educational reforms require both support and pressure. According to Sun (2003a,b, 2007; Sun and de Jong, 2007), quality enhancement or any effective school improvement require clear goals, great support and adequate pressure. "Successful implementation of any given policy requires those implementing it to be simultaneously provided with support and put under pressure" (Fullan, 1999). Pressure without support creates alienation and resistance, while support without pressure, tends to be a waste of resources. The existence of pressure is therefore a very important feature of successful change, as long as it is combined with support (Miles, 1986). This pressure-support paradox has been increasingly recognized as a profound insight. Therefore, the research focused on "enhancing quality" and "reducing pressure" is worth of a deeper exploration. In the field of school effectiveness (SE) and school improvement (SI), the well-known researches on enhancing school effectiveness and educational quality were quite a lot, for example, Edmonds (1979a, b), Brookover *et al.* (1979), Teddlie and Stringfield(1993) in the USA; Rutter *et al.* (1979), Mortimore *et al.* (1988), Stoll and Fink (1996) in the UK; Creemers (1994), Scheerens and Bosker (1997), Creemers *et al.* (1998, 2001) in The Netherlands, etc. However, they were more focusing on enhancing educational quality and improving school effectiveness, and little was mentioned on how to reduce student pressures. In the two popular books *The International Handbook of School Effectiveness and Improvement* (Teddlie and Reynolds, 2000) and *World Class Schools* (Reynolds *et al.*, 2002), educational effectiveness, school effectiveness and teachers effectiveness were the major concern. However, little was mentioned about the factors that caused pressure for students, teachers and schools. Therefore, this research has its unique originality in adding some values to the missing perspectives.

Methodology

In the Chinese context, the students at HSS are facing the strongest pressure during their whole schooling. Therefore, this study intends to survey the status quo of the student pressure and the relationship between their daily time management and their learning outcomes in three different types of HSS at Shenyang. For instance, what are the causes that lead to student pressure? Do all the students feel the same pressure at the same degree?

In Shenyang, as in all the big cities in mainland China, there are three types of higher secondary schools (HSS) in the public school section (vocational schools excluded): the provincial key higher secondary schools (PKHSS), the city key higher secondary schools (CKHSS) and the ordinary higher secondary schools (OHSS). Among these three types of schools, generally speaking, the quality of PKHSS is better than CKHSS, and the quality of CKHSS is better than the OHSS. It is because that after the lower secondary education, the city or the county will hold a unified examination. Only when the graduates reach a certain enrollment score, can they be recruited firstly by the PKHSS, and then the CKHSS, and finally the OHSS. In the public school section, there is no free school choice. Due to the fact that the three types of secondary schools have got quite different types of student "input", at the yearly NCEE, the PKHSS students normally have the best output (outcome performance), then the CKHSS students, finally the OHSS students. For the lower secondary school students in China, the biggest wish is to become a PKHSS student.

In the literature review part, school effectiveness theory, applied psychology theory and the pressure-support strategies (Barber, 1998; Fullan, 1999) were reviewed and integrated. Based on the literature review and integration, we conducted both group interviews and individual interviews among students, teachers, principals, administrators and experts in May 2006 and in July 2006. The interviews were recorded and have been turned into Chinese words, in total, there were 80,453 Chinese words. Based on the interviews, we continued to improve and modify the questionnaires. After pre-tests and then several modifications, the final student pressure questionnaires were formed which contained 32 close questions and five semi-open questions. The questions included the sleeping time, the getting up time, the time for doing homework, the time spent at schools per day, the tests frequency, etc. In order to get true and objective answers, an anonymous approach (no name, but only the information about the location, the name and the type of school, etc.) was used for filling in the questionnaires. Four PKHSS, eight CKHSS and four OHSS were selected as our samples. In order to make the samples more representative, these 14 sample schools were chosen from five different districts in Shenyang. Three different types of schools were chosen in each district. We distributed the questionnaires twice. In total, 240 copies of the students' pressure questionnaires were distributed to 240 students. The returned effective copies were 239. Due to the limitation of the length of this paper, we are not going to detail the literature review and the data collection in this paper but rather the important findings of our research.

The findings

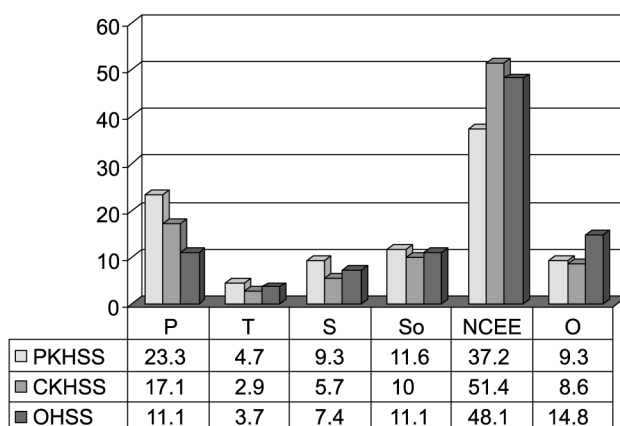
Students' pressure sources in three types of HSS schools

The analysis of the questionnaires shows that among the PKHSS students, 37.2 per cent of them considered that the pressure mainly came from the yearly NCEE. 23.3 per cent of them considered the pressure came from their parents, 11.6 per cent of them considered that the pressure came from society, 9.3 per cent of them considered that the pressure came from their schools and 4.7 per cent of them considered that the pressure came from their teachers. Among the CKHSS students, 51.4 per cent of them thought the pressure came from the yearly NCEE, 17.1 per cent of them thought the pressure came from their parents, 10 per cent of them thought the pressure came from society, 8.6 per cent of them thought the pressure came from other sources, 5.7 per cent of them

thought the pressure came from schools, and 2.9 per cent of them thought the pressure came from their teachers. While among the OHSS students, 48.1 per cent of them thought that the pressure came from the yearly NCEE, 14.8 per cent of them thought the pressure came from other sources, 11.1 per cent of them thought the pressure came from their parents, 11.1 per cent of them thought the pressure came from society, 7.4 per cent of them thought the pressure came from schools, and 3.7 per cent of them thought the pressure came from their teachers. In short, the ranking orders of the students' pressures are:

- (1) the NCEE;
- (2) parents;
- (3) society;
- (4) others;
- (5) schools; and
- (6) teachers (see Figure 1).

From the above diagram, we can see clearly that the pressure caused by the yearly NCEE was felt strongest by the CKHSS students (51.4 per cent), less strong by the OHSS students (48.1 per cent) and the least strong by the PKHSS students (37.2 per cent). Since China enlarged its higher educational enrolment in the 1990s, over one third of the whole secondary school graduates can be enrolled by colleges or universities. Academically speaking, the PKHSS graduates belong to the top one third. They could be enrolled by any ordinary colleges or universities. Therefore, they felt the lowest pressure from the NCEE, because their main concern was on whether they could be enrolled by the good universities or not. While the CKHSS students had less academically possibilities as well as less confidence to pass the NCEE, therefore, their



Notes: “P” stands for parents; “T” stands for teachers; “S” stands for schools; “So” stands for society; “NCEE” stands for national college entrance examinations; “O” stands for others; “PKHSS” stands for provincial key higher secondary schools; “CKHSS” stands for city key higher secondary schools; “OHSS” stands for ordinary higher secondary schools

Figure 1. Students' pressure sources in three types of HSS schools

chances for entering colleges and universities were less than the PKHSS students. They had to study hard. While the chances and expectations for the OHSS students to enter into colleges or universities were the least. Therefore, the CKHSS students are more anxious and worried psychologically, that was why 51.4 per cent of them consider that NCEE was the largest pressure source. The OHSS students had mediated pressure (48.1 per cent), for them, the chances to enter colleges or universities were slim, only when they worked extremely hard, could they have such possibilities.

The second strongest pressure for HSS students in mainland China was the high expectations from their parents. Talking about the pressure from their parents, the PKHSS students felt the strongest (23.3 per cent) than the other two types of students. While the OHSS students felt the least (11.1 per cent), and the CKHSS students was at the middle (17.1). This finding is very interesting because it is coherent with School Effectiveness theories that higher expectations from parents, teachers and schools may influence students' learning outcomes. The parents of the PKHSS students put higher expectations on their kids.

From Figure 2 we can see that more students went to bed between 22:00-23:00 than at any other hours. Nearly 30 per cent of the PKHSS and CKHSS students went to bed before 22:00. Besides, between 22:00 to 23:00 o'clock, over 53.5 per cent of the PKHSS students went to bed, on the contrary, only 37.0 per cent of the OHSS students went to bed. Between 23:00 to 24:00, 11.6 per cent of the PKHSS students went to bed, which meant that in total over 95.1 per cent of the PKHSS students went to bed before 24:00. On the contrary, only 25.9 per cent of the OHSS students went to bed between 23:00 to 24:00, after 24:00 o'clock, 7.4 per cent of the OHSS students still did not go to bed. This indicates that the OHSS students slept late than both the PKHSS and CKHSS students. This might lead to other questions: If they slept late and got up late, would they go to schools late? If they went to school late, would this affect their study in the daytime at schools? With these questions, we turn to Figure 3.

Figure 3 compares the getting up time of the three type students. Over 75.7 per cent of the CKHSS students got up before 6:00 a.m., while 55.8 per cent of the PKHSS students got up before 6:00 a.m. Of the PKHSS students 44.2 per cent got up between 6:00 to 7:00 a.m., while only 22.2 per cent of the OHSS students got up at this period of time, which ranked the lowest among the three types. Between 7:00 to 8:00 a.m.,

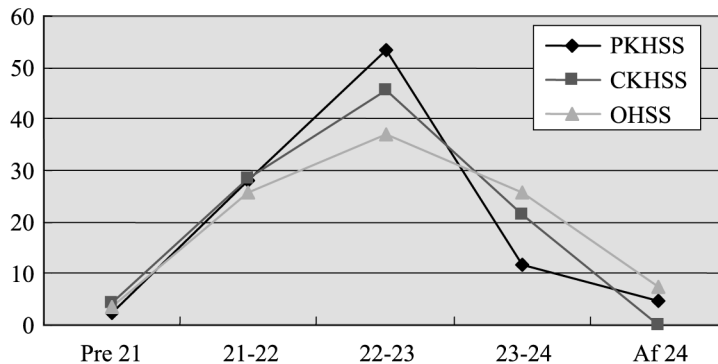


Figure 2.
Resting time

Notes: "Pre 21" stands for before 21:00 in the evening, "Af 24" stands for after 24:00

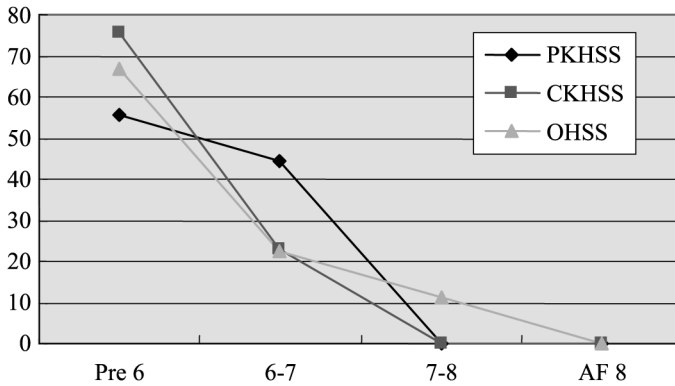
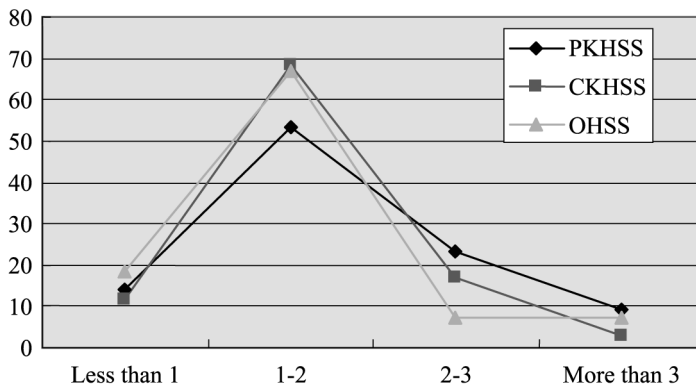


Figure 3. Getting up time

particularly about 7:30, all the PKHSS and CKHSS students got up, on the contrary, over 10 per cent of the OHSS students still didn't get up yet. Even after 8:00 a.m. (the starting time for classes in China), over 5 per cent of the OHSS students did not get up, which indicated that at least 5 per cent of the OHSS students were late or even absent for going to schools or late for attending their classes. Therefore, this became a serious problem for the OHSS students.

From Figure 2 and Figure 3, we got the impression that on the one hand, the PKHSS and the CKHSS students went to bed earlier and got up earlier than the OHSS students, in this way, the rate of their attendance or no-late for schools and classes was much higher than that of the OHSS students. On the other hand, good "resting habit" (going to bed early and getting up early to obtain sufficient sleeping time) is the foundation for efficient and effective learning.

Figure 4 shows how many hours that the HSS students spent on doing their homework everyday in Shenyang. When looking at the diagram roughly, we may find that over half of them had 1-2 hours homework daily. In detail, 18.5 per cent of the OHSS students had less than 1 hour homework per day which was higher than the proportions of the PKHSS and CKHSS students. It indicated that almost two out of ten



Notes: "Less than 1" stands for less than 1 hour, "more than 3" stands for more than 3 hours. "1-2" stands for 1 to 2 hours

Figure 4. Homework time

OHSS students had very little homework to do. But this was not the case for the PKHSS and CKHSS students. A total 65.7 per cent of the CKHSS students had 1-2 hours homework per day but only 53.5 per cent of the PKHSS students had 1-2 hours homework per day. Of the PKHSS students 23.3 per cent had 2-3 hours homework, however, only 7.4 per cent of the OHSS students had 2-3 hours homework; 9.3 per cent of the PKHSS students had more than 3 hours homework per day, the CKHSS students had less (7.4 per cent). In short, the PKHSS students got more homework to do every day, around 1/3 of them spent more than 2-3 hours on doing their homework daily. The OHSS students got the least homework to do, less than 14 per cent of them spent more than 2-3 hours on doing their homework daily. While the CKHSS students were in between. Interesting enough, the rank order of their time spent on doing their homework was equivalent to the rank order of their outcome performance in their NCEE. Therefore, may we predict that a certain quantity of homework did play a certain role in enhancing the PKHSS and CKHSS students learning outcomes in Shenyang.

As Figure 5 indicates that the PKHSS students had the highest frequency of tests per week, next were the CKHSS students, on the contrary, the OHSS students had no weekly tests. The OHSS students had only monthly (about 70 per cent) and term tests (30 per cent), while the PKHSS and the CKHSS students had three types of tests, particularly the weekly tests which were considered much more effective than that of the monthly or termly ones by the interviewed teachers and students. According to the interview with the teachers, the weekly tests played an important role in student effective learning. According to school effectiveness theory, frequently evaluating student learning outcomes and giving them the feedback as quickly as possible are important to enhance school quality and to improve student learning outcomes.

Seeing from Figure 6, we may find that around 70.4 per cent of the OHSS students stayed at schools over 9 hours per day. Then the PKHSS students, around 55.8 per cent of them stayed at schools over 9 hours. Around 51.4 per cent of the CKHSS students stayed at schools over 9 hours. In total, more than half of the higher secondary school students in Shenyang, no matter in which type of schools, spent over 9 hours at their schools during the weekdays (Monday-Friday). Particularly the OHSS students spent more hours at schools than their PKHSS and CKHSS peers, however, most of their

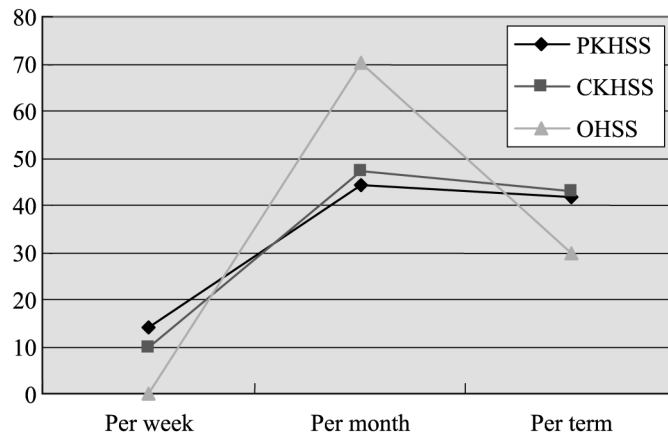
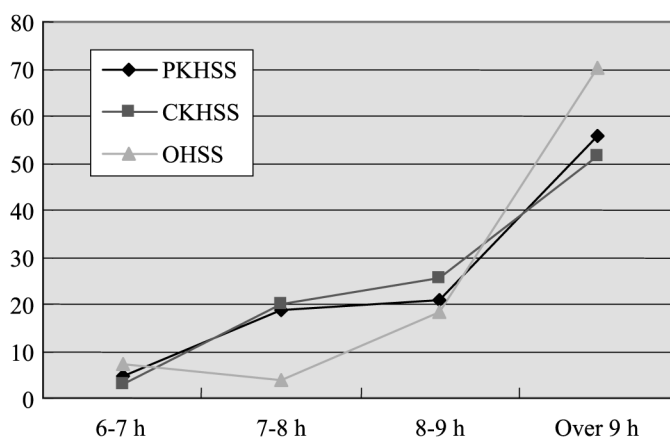


Figure 5.
Tests frequency



Notes: "6-7 h" stands for 6 to 7 hours, "over 9 h" stands for over 9 hours

Figure 6.
Time spent at schools

NCEE marks were lower than that of their peers at the PKHSS and CKHSS schools. This phenomenon argued that there was no direct relationship between the time spent at schools and the student learning outcomes. According to school effectiveness theory and research, it is not the time staying at schools but rather the time which students concentrate and focus on their study that will decide their learning outcomes.

Discussion

From the above analysis of this study, the following conclusions can be drawn:

- The major pressure for three types of HSS students in Shenyang came from the yearly NCEE. Therefore, the yearly NCEE had played a predominant and significant role in producing pressure for students in Shenyang and in mainland China as well. Such a strong pressure has both positive and negative influence on student learning outcomes. The positive influence was that the pressure, if it was adequate, could be turned into a strong force to stimulate the student learning. The negative influence was that if it was too strong, it might cause too much pressure not only for the students but also for the teachers, parents and school managers. In addition, within the three types of HSS students, the felt pressure differs. More CKHSS students felt the NCEE pressure than that of the OHSS students. Meanwhile, less PKHSS students felt the NCEE pressure than the OHSS students. In other words, the PKHSS students were more confident in believing that they could pass the NCEE tests than the other two types of students. Self-confidence and self-beliefs had some positive influence on the learning outcomes of the PKHSS students.
- The higher expectations from parents and from society played the second and the third significant roles in producing pressure for HSS students. This finding is coherent with school effectiveness theories that higher expectations may influence students' learning outcomes. However, too high expectations may also cause too much pressure for the students. Our data showed that the student outcomes and their parents' expectations were in direct proportion within these

three types of students. The next pressure sources were others, schools and teachers. But the students felt much less pressure from schools and teachers comparing the pressure from their parents, the society and others. It was the great expectations from the parents and from the society that created a high pressure, both positive and negative, to the HSS students in Shenyang.

- Talking about the resting time – time for sleep and time for getting up, generally speaking, the PKHSS students went to bed earlier than both the CKHSS and the OHSS students. Meanwhile, they also got up earlier than the other two types. From interviews, we also got to know that they were seldom late nor absent for going to schools and for attending classes than the OHSS students. Obviously, the higher school/class attendance had guaranteed the success of the students' learning. In addition, to form a good habit in life (e.g. the proper time to go to bed and to get up to obtain sufficient sleeping time, never late and never absent for going to school) is very important for the secondary school students. It is the foundation for their effective learning.
- A certain quantity of homework has played an important role in enhancing the PKHSS student learning outcomes. This conclusion is built on the fact that the PKHSS students in Shenyang got more homework to do than their peers in both CKHSS and OHSS schools. As a result, their NCEE marks were also higher than their peers in CKHSS and OHSS schools. The rank order of their time spent on doing their homework was equivalent to the rank order of their outcome performance in their NCEE.
- Regarding the test frequency, more PKHSS students had tests every week than the CKHSS students, on the contrary, the OHSS students had no weekly tests. They had only monthly and termly tests. Their pressure in the aspect of test frequency was less than the PKHSS and the CKHSS students. However, their learning outcome performance was much lower or "less" as good as their PKHSS and CKHSS peers. Obviously, on the one hand, the weekly tests did cause pressures to the PKHSS and CKHSS students, on the other hand, the weekly tests did make some differences among the three types of student learning outcomes. In brief, frequently evaluating student learning outcomes and giving them the feedback as quickly as possible are important to enhance school quality and to improve student learning outcomes.
- Regarding the time spent at schools, there was no direct relationship between the student time spent at schools and the student learning outcomes. Therefore, it was not the time staying at schools making difference but rather the time which students concentrated and focused on their study that might decide their learning outcomes.
- Having been aware of the limitations of this study, at present, we are conducting a larger research focusing on measuring and reducing students' pressure and enhancing school qualities in China. We cherish the hope that we may get more enlightening ideas and findings from our study!

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Further reading

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