

The impact of online learning discipline on students' English grades during COVID-19: A survey in China

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Abstract: With the strike of COVID-19, schools adopted online learning by staying at home to guarantee the right of students' learning. This study investigates the correlation between the impact of online learning discipline and students' English grades. Two questionnaires were designed and distributed to participants. The result revealed that online learning discipline significantly correlated with students' English points. Class management and organization systems played a core role in learning discipline when students took online courses at home. Besides, other factors included interactions between teachers and students, family environment, and support by parents, which were also essential. Overall, teachers, students, and parents should make a joint effort to decrease the negative impact of learning discipline while studying online by staying at home. So, focusing on organizing a good learning discipline during online learning at home is essential.

1. Introduction

Almost all the schools in China, including primary and middle schools, have experienced home online learning since March 2020. During this period, educational workers, parents, and students had a deep understanding of online study at home. Teachers could not deliver lessons through face-to-face education, so they were unsure about students' learning status. Students were easily absent-minded as they were usually distracted by phones and other electric appliances while studying online. In terms of parents, they had to supervise their children during online learning by sitting around them, but some parents mentioned that they had their work to do so that they couldn't sit around their children all the time. Most students cannot cooperate with their group members through the computer and failed to imitate their teachers' pronunciation in English by taking online courses because they cannot see what teachers' pronunciation is, which led to the decline of their English grades. Some typical literature from home and abroad about online learning by staying at home found that home online learning requires highly class teaching organization and management. Home online learning has left people with a disorganized impression. Although the large-scale COVID-19 crisis passed, home online learning has already taken root in primary and middle schools. Schools still use the form of online learning most of the time. This study aims to investigate class teaching organization and management with taking home online courses during COVID-19 in 2020 and aimed to reveal factors behind the lack of class discipline. According to the result of the investigation, this paper will suggest similar forms of online learning in similar situations in the future.

2. Literature review

The online course in the study is a large-scale subject teaching in video and live modes, which schools organize. It is different from other online teaching modes, like the online course of extracurricular tutoring and interest classes. It is a systematic subject teaching, including taking classes, completing homework, physical exercise, and other aspects [3].

Some studies indicated some ways and procedures of online learning at home. Lin (2021) pointed out that online learning at home is a new type of autonomous learning approach that uses online learning platforms, mainly QQ, WeChat and Ding Talk. Teachers use these platforms to broadcast

online or recovered broadcast. Also, principals apply online video conference call students and parents together. As for assigning and checking homework, students submit their assignments on Ding Talk before the deadline, and teachers check them on it [12]. Guo (2021) proposed that four modes of online learning were mainly employed during COVID-19, including online learning based on MOOC teaching mode, online MOOC based on others' teaching mode, online temporary building of MOOC based on others teaching methods, and learning based on broadcasting online. Procedures of studying online consist of preparing for classes, delivering lessons during classes, and reflecting knowledge after classes. Before classes, teachers and students should check the stability of the network. During classes, students absorb knowledge by reading power-point or e-books online. Ding Talk provides students chances to interact with others by sending words in the comment area [7].

There are negative effects on online learning at home. A study indicated that the results of online learning are worse than that they expected. More than 40% of the students had the worst sense of online learning [4]. Other researchers indicated that because of the current comprehensive online learning initiation, technical defects, teachers' inadaptability and insufficient preparation, and students' lack of self-control caused low learning efficiency [6]. Ma (2020) proposed that teachers, students, and parents were facing many problems during online learning. Teachers did not know how to choose appropriate online courses and were not practical in applying online platforms. He pointed out that some students were not willing to figure out ways of problem solving by themselves. They were inclined to depend on using the internet to find answers directly. The results of studying online at home were not satisfactory. He also mentioned that due to the lack of home-school cooperation awareness, environments of home online learning cannot be guaranteed. Although schools advocated that parents should be supervisors or good examples during home online learning, parents just took part in this activity passively and even complained about it [14].

So how to make improvements in online learning at home? Researchers said that shortening the duration of online courses is an effective way. It is also necessary to enhance students' learning interests by enriching the content of online lessons. Thus, students' motivations can be stimulated [21]. The range of online courses should contain subject knowledge and penetrate understanding of living a healthy lifestyle, shouldering responsibilities, and innovating [8]. Other researchers found that students are dedicated to interacting with teachers by opening cameras on computers. They also suggested that playing pieces of music or a short video can create a relaxing atmosphere during a break [4]. In terms of making effective feedback on students' exercises during online learning, it is helpful for teachers to assign appropriate homework and upload answers on WeChat. Students make self-correction at first, and then teachers organize a meeting to explain the rest of the unsolved questions [20]. Previous research proved that parents play an indispensable role in online learning at home. They need to contact teachers frequently and supervise their children while they are learning. Establishing a good relationship with parents is a factor that also be taken into consideration. Teachers are supposed to guide parents to care about their children's mental conditions by communicating with them frequently [11]. Some researchers advised that parents have to understand the content and progress of online learning and make study plans together [13]. Parents had to accompany their children to learn at home. Therefore, collaboration between teachers and parents was needed to overcome various obstacles [19].

Based on the above studies, it can be argued that during COVID-19, many types of online learning modes are used, and the main form of online learning mode is through live and video mode. Both teachers, students, and parents were facing issues during this period. It is a challenge for them to do online teaching and learning at home in China. Researchers have put forward some advice about how to improve online learning at home. These suggestions are worthwhile for us to make a further consideration.

3. Study design

3.1 Research question

This study investigates whether classroom discipline during online learning at home significantly impacts students' English grades.

3.2 Research object

Participants were the 210 students and their parents from Zheng Zhou No.58 Middle School, a public boarding middle school in Zhengzhou, Henan province. The students were all 8th grade, aged from 13-14 years old. They were selected randomly from 32 classes. Each class contains about 50 students. 93 of them are high proficiency English learners (who can get 90 points out of 120 points), while the rest are relatively low English learners (whose English scores are usually below 90 points.) Of the original 210 students, one student was deleted for the miss of his English points during the COVID-19 period.

3.3 Research object

For this purpose of the study, two questionnaires were held. One is for students, while the other is for parents. Each of the questionnaires contains 20 items. This study used the classroom discipline scale.

The whole class discipline scale is divided into five subscales in the students' questionnaire, including 20 items: class management and organizing system (4 items), class atmosphere (4 items), interactions (4 items), family environment (4 items), and relations (4 items). To analyze students' classroom discipline during online learning, 20 questions emerged on both questionnaires education based on students and their parents' opinions towards online learning (e.g., do you think there is a lack of interaction between teachers and students during online learning at home)? Students rated their opinions towards online education at home on a scale ranging from 1 (definitely has) to 3 (definitely does not have).

The Parents' Questionnaire showed the same pattern as the Students' Questionnaire, but the subscales differed from the students' questionnaire. The whole class discipline scale is divided into five subscales, including 20 items: family environment (5 items), parents' accompany (3items), communication (5 items), parents' supervision (6 items), and teachers' teaching content (1 item). The researcher selected students' English grades in the final exam which was tested in June 2020 at school.

3.4 Data analysis

Data were collected over three weeks. Teachers sent questionnaires to the students and their parents. Students and their parents completed the questionnaires and returned them to the students' school teachers within two days. The collected data were analyzed by correlation analysis as the statistical method. The researchers used Statistical Packages for Social Sciences (SPSS) and Microsoft Excel to measure and perform statistical analysis.

4. Results

4.1 The correlation between online discipline and students' English grades (the Students' Questionnaire)

To explore the correlation between online class discipline and students' English grades, correlation analysis was used. As the data in Table1 shows, there is a significant correlation between online class discipline and students' English grades. The students' questionnaire consists of 5 subscales: class management and organizing system, class atmosphere, interactions (between teachers and students or interactions between students and students), family atmosphere, and relationships (between teachers and students or relationships between students and students). According to analysis, class management and organizing system correlated significantly with students' English grades. *p* values in this subscale are all below 0.05 (which are 0.003, 0.004, 0.000, 0.000 respectively). Besides, the class atmosphere

during online learning also showed a significant correlation with students' English grades. *P* values in this subscale are all below 0.05 as well (which are 0.000, 0.000, 0.032 and 0.001 respectively). In terms of interactions and family atmosphere during online learning at home, they showed relatively low correlations with students' English grades. Relationships and students' English grades showed little correlation as *p* values of 2 out of 4 questions are higher than 0.05.

Table 1. The correlation between class discipline during online learning at home and students' English grades.

Subscales	items	Spearman correlation	Sig.(2- tailed)
Class management and organizing system(1-4items)	1	0.206**	0.003
	2	0.198**	0.004
	3	0.312**	0.000
	4	0.257**	0.000
	5	-0.274**	0.000
Class atmosphere(5-8 items)	6	0.273**	0.000
	7	0.149*	0.032
	8	0.232**	0.001
	9	0.079	0.257
Interactions(9-12items)	10	0.130*	0.060
	11	-0.320**	0.000
	12	-0.118	0.088
	13	0.060	0.391
Family environment(13-16items)	14	0.153*	0.027
	15	-0.164*	0.018
	16	-0.134	0.053
	17	0.054	0.441
Relations(17-20items)	18	0.019	0.783
	19	0.182**	0.008
	20	0.140*	0.043

* $p < 0.05$ ** $p < 0.01$

4.2 The correlation between online classroom discipline and students' English grades (parents' questionnaire)

The correlation between online discipline and students' English grades from parents' perspective, the results in Table 2 showed the correlation. A relatively high significant correlation between parents' accompany and students' English grades, and the correlation in communication showed the same picture. Teachers' teaching content is correlated significantly with students' grades ($p = 0.024$). Students' English grades also correlate with the environment, as wearing school uniform while taking online courses at home also significantly correlated with students' English grades. Interestingly, before data collection, we predicted that parents' supervision might significantly correlate with students' English grades. However, the results indicated a different picture. All *p*-values of questions related to parents' supervision were above 0.05.

Table 2. The correlation between online classroom discipline and students' English grades.

Subscales	Items	Spearman correlation	Sig.(2- tailed)
Family environment (1-5items)	1	-0.383**	0.000
	2	-0.580	0.408
	3	0.081	0.246
	4	-0.029	0.677
	5	-0.066	0.344
Parents' accompany	6	-0.070	0.311

(6-8 items)	7	-0.250**	0.000
	8	-0.221**	0.001
Communication (9-13items)	9	-0.152*	0.028
	10	0.323**	0.000
	11	-0.128	0.065
	12	-0.035	0.615
	13	0.056	0.421
Parents' supervision (14-19items)	14	0.088	0.206
	15	-0.107	0.123
	16	-0.088	0.206
	17	-0.023	0.745
	18	0.026	0.706
	19	-0.033	0.639
Teachers' teaching content (20item)	20	0.156*	0.024

* p<0.05 ** p<0.01

5. Discussion

Many countries have closed schools because of the COVID-19 epidemic to prevent the spread of the virus. To guarantee the right of students' learning, educational policymakers, school administration, and teachers had to find alternatives to face-to-face teaching. For this purpose, online classes are used and play an essential role in learning by staying at home [9]. Previous studies demonstrated the positive influence that online learning has. However, the result of online learning by staying at home was not that positive than we expected.

To promote the effectiveness of online learning, the result of this study (Table 1) suggested that class discipline is an essential element in improving students' English grades. Especially class management and organizing system, it is the most significant factor with students' English grades. It implies that students need specific classroom management to restrict their behavior as they lack self-control. To better manage students, teachers divide students into different groups according to students' learning proficiency. Taking submitting homework as an example, students make self-correction at first and submit unclear questions to group leaders of each group. Group leaders collect common problems and send them to WeChat or Ding Talk groups, making teachers see these unsolved questions. To some degree, this method avoids students making unrelated comments on the comment area during lecturing. Also, class atmosphere, interactions between teachers and students showed considerable significance on online learning by staying at home. It is advisable for teachers to teach and arrange games, like tongue twisters and guessing games, to enhance interactions between teachers and students. In addition, teachers could send messages to encourage students to learn more. A current study found a positive correlation between teachers' statements and the students' average study time during COVID-19 [16]. The family environment also is a factor that should be taken into consideration. From students' perspective, the deficiency of parents' supervision is one of the reasons why their learning effectiveness declined. The Accompany, encouragement, and guidance of parents are fundamental elements for children's development, especially for younger children [1]. Teacher and student relationship is a significant factor for class discipline in offline classes, while this factor does not affect students' English grades in online learning. Maybe students did not have a strong feeling of discontent when they could not see their teachers through screens. The correlation between paying attention to students' mental condition and English points is significant. It indicates that teachers should focus on students' psychological health even if they are away from students.

From parents' perspective, teachers' teaching content should be exciting and refining to attract students' interests when studying online. It is the teachers' responsibility to make a whole-complete preparation before class and predict what problems students will meet. Some current studies demonstrated that teachers should prepare lectures beforehand and share questions with students [15]. In addition, accompanying kids plays an essential part in online learning. The majority of parents

believe that if COVID-19 happens again, they would like to study with their children and set a good example. To make sure the process of their children's learning is parents' duty. Some parents said they select to correspond with teachers immediately through video calls or phone calls if they meet problems. If outbreaks like COVID-19 happens again, they recommend teachers arrange parents' meetings once or twice a week. Some researchers surveyed the willingness of home and school communication. In this survey, over 70 percent of parents firmly believed that home and school communication could significantly affect children. Parents are their classmates, teachers, parents, and supervisors while studying online by staying at home. It also provides an opportunity for parents to set a good example for their children, and it is a way to force parents to improve themselves [5].

In the future, we can imply online learning by staying at home in other ways to help schools accomplish teaching tasks more effectively. For example, there will be school closures if an international meeting is going to hold in Zhengzhou. To avoid learning loss during this period, schools can offer online learning to students. Also, suppose teachers have something emergency to deal with but are not willing to postpone the lessons. In that case, they can let students watch video recordings with other teachers' supervision. Schools can organize students to study online during weekends or holidays by offering courses online for preview and review.

6. Conclusion and limitations

6.1 Conclusion

With the strike of COVID-19, the learning pattern has been shifted from face-to-face learning to online learning by staying at home rapidly [17]. Online learning has been thought to have many merits over traditional teaching methods, such as flexible learning time and accessible learning resources [2, 10]. Students are expected to make a lot of progress in this way. However, based on previous studies, the findings implied that students made no or little progress while online learning by staying at home [18].

This study illustrated that due to class disorganizing is the disorganization of class discipline. Students' English grades decreased, and the core reason for type disorganizing is class management and organization deficiency. Creating a comfortable learning environment, interacting with others, and parents' cooperation between home and school are crucial factors to online learning at home.

6.2 limitations

A potential limitation of our study is that we lack the data of students' attendance, durations of watching videos, and frequencies of interactions in comment areas due to the limitation period on Ding Talk. In addition, home-study support by parents, grandparents, or siblings might have different effects on students' learning, but we are unable to observe them in the current data. Further studies on the influence of COVID-19 on education should supplement our results by collecting more data and using the more comprehensive approach of impact.

References

- [1] Bai R., Zhang Wy., Guan Y. & Xie Qs. (2021). Analysis on the Reform Path of Home - school Collaboration in Post - epidemic Era. *Theory of Educational Technology*, 3, 30-37.
- [2] Broadbent, J. (2017). Comparing online and blended learner's self-regulated learning strategies and academic performance. *Internet Higher Educ.* 33, 24–32 (2017).
- [3] Chai Yw., Li Yx. & Wang Fq. (2021). The Impact of Children's Home based Learning on Parents' Spatio-temporal Behavior during Epidemic Prevention and Control. *Spatiotemporal behavior under epidemic situation*, 3, 35-99.
- [4] Deng Hy., Huang Tt, Xiang Z. & Wang H. (2020). Study on College Students' Gains of Online Learning under the Epidemic Situation. *Creative Education Studies*, 8(4), 526-534.

- [5] Deng Ys. & Wang Xx. (2020). College Students grow up: Home-School Collaboration based on Home-based Learning. *Hanyu Culture*, 10, 156-160.
- [6] Guo Mh. & Zhang Lc. (2009). Analysis on the Characteristics and Causes of Students ' Self - control in Learning. *Journal of Shanxi Datong University (Natural Science Edition)*, 5, 78-80.
- [7] Guo En (2021). Online Course Design and Implementation based on Closed Loop Thinking – Taking Superstar Fanya Platform as an Example. *Theoretic Discourse*, 142-145.
- [8] Huang Yq., Wu C. & Wang Yt. (2020). The Design and Implementation of Home-based Learning Courses during the Epidemic. *Education and Teaching Research*. 3, 71-78.
- [9] Iqra M., Muhammad R., Riaz KD, Rashid A. & Misbah M. (2021). Students' Attitude and Impact of Online Learning; Role of Teachers and Classmate Support during the COVID-19 Crisis. *Performance Improvement*, 1-8.
- [10] King, E. & Boyatt, R. Exploring factors that influence adoption of e-learning within higher education. *Br. J. Edu. Technol.* 46(6), 1272–1280 (2015).
- [11] Li Dx. & Su Rj. (2020). Learning from Home: Misunderstanding, Reflection, and Enlightenment. *Education Science*, 6, 28-33.
- [12] Lin Yl. (2021). Online Teaching: A New Model of Home-based Autonomous Learning. *Education Vision*, 25-26.
- [13] Li Yx, Song Lq. & Xu L. (2020). Precision Online Teaching + Home Study Model: a Feasible Way to Improve the Quality of Study for Students during Epidemic. *Special Attention to Education*, 3, 114-122.
- [14] Ma Ning (2020). Path Optimization of Online Education in Primary and Secondary Schools under the Background of New Coronavirus. *Educational Science Forum*, 7, 33-37.
- [15] Mahmood S. Instructional Strategies for Online Teaching in COVID-19 Pandemic. *Hum Behav & Emerg Tech.* 2021; 3: 199–203. 3.
- [16] Masato I. & Shintaro Y. Online learning during school closure due to COVID-19. *The Japanese Economic Review*. <https://doi.org/10.1007/s42973-021-00079-7>.
- [17] Nourhan F. Wasfy , Enjy A., Asmaa A N. , Samar A. Ahmed, Ilham Y., Nagwa N. Hegazy , Mohamed Hany K. Shehata, Doaa Kamal & Hani Atwa. A guide for evaluation of online Learning in medical education: a qualitative reflective analysis. Wasfy et al. *BMC Medical Education* (2021) 21:339.
- [18] Per E, Arun F, & Mark D. Verhagena. Learning loss due to school closures during the COVID-19 pandemic. *PNAS* 2021 Vol. 118 No. 17.
- [19] Risma M. S, Yuni Sudiasih & Trisnaningsih (2021). Independence and Responsibility of the Students through Online Learning. Lampung University, Bandar Lampung, Indonesia.
- [20] Sun Gy. (2020). The Role and Function of Teachers during Home Study. Primary and secondary education, 5, 46-47.
- [21] Shi Y, Zhai L. (2021). Reflections on Physics Curriculum and Teaching in Middle Schools under the Background of Home Learning. *Research on Curriculum and Teaching Reform*, 6, 47-49.