# Impact of Online Teaching among College Students in Weifang Institute of Technology

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Abstract: Affected by the COVID-19 epidemic, Weifang Institute of Technology, at the call of the Ministry of Education, organized various forms of online teaching activities in the second semester of the 2019-2020 academic year from March 2020 to July 2020, replacing offline teaching. This study focuses on the influence of network teaching on college students, finds out the difficulties in network learning and puts forward some suggestions. The change of teaching method has some influence on students. This study uses the school education management platform to study the effect of online learning on students. The questionnaire survey shows that about one third of students think that the effect of online teaching is better than that of offline teaching, and more than one third of students hope to use offline teaching method to teach in school. In order to solve this problem, this study adopts the quantitative and qualitative methods, questionnaire investigation, interview method, studied the present situation of online learning, such as online learning found some problems, such as students do not adapt to the network teaching, such as poor online interactive teaching and learning time cannot guarantee lead to study the effect not beautiful, more than 80% of the students think that the main reason for the poor learning effect is not adapt to the new teaching method, students' self control ability is poor, the interference factor that the network environment. This paper analyzes the causes of students' online learning problems from the students' point of view, and puts forward practical suggestions to improve the effect of Weifang Institute of Technology students' online learning.

#### 1. Introduction

#### 1.1 Brief Introduction of Online Teaching

Due to the COVID-19 epidemic, the Ministry of Education has asked universities across the country to complete online teaching for this semester between March 2020 and July 2020 as much as possible. Weifang institute (hereinafter referred to as "college") according to the Ministry of Education of common colleges and universities during the epidemic prevention and control of online teaching organization and management guidance "and" shandong province education department will be coronavirus pneumonia epidemic prevention and control work leading group for epidemic prevention and control about common colleges and universities teaching organization and management during the period of notice the relevant documents spirit, established "the weifang

institute during the extension of school network teaching implementation plan" and actively implement, promote implementation. The college organizes various online teaching platforms to train teachers online, and provides online teaching methods for teachers as soon as possible to ensure that teachers can master online teaching skills smoothly.

According to the statistics of the Academic Affairs Office, 795 courses should be offered in this semester, including 576 theoretical courses, 26 experimental courses and 193 courses combining theory and practice. There are 760 online courses, including 575 theoretical courses, 6 experimental courses and 179 courses combining theory and practice. There are 35 courses that have not been opened, including 20 experimental courses, 14 combining theory and practice courses, and 1 theory course (external hire). The main reason for the lack of courses is that the courses involving experiments and practices cannot be operated online in practice. Among them, 86 MOOCs (synchronous SPOC, asynchronous SPOC) and Wisdom Tree (shared courses) from 985 universities were selected, accounting for 28%, and 77 courses from 211 universities, accounting for 25%.

At present, network teaching mainly adopts three forms: network course teaching based on network teaching platform, online teaching by using network social communication software (instant messaging) or the combination of the two. Teachers can adopt appropriate network teaching methods according to course nature and network conditions. The network teaching platforms used by the faculty mainly include MOOC of China University, Wisdom Tree, Xuetang Online (Rain Classroom), Super Star (Xuetong), etc., and instant social communication software mainly includes online real-time communication software such as Tencent Conference, Tencent Classroom, QQ Video Conference, QQ Group, WeChat Group, etc.

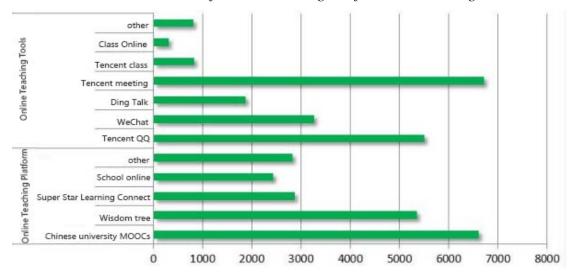


Table 1 -1 Students' Use of Online Teaching Platform and Teaching Tools

Table 1 -2 The Distribution of Students At All Levels Using Network Teaching

platforms and tools

		Online Teaching Platform					Online Teaching Tools							
Student's	The	Chines	Wisd	Super	Scho	Oth	Tence	WeC	Din	Tence	Tence	Clas	Oth	
Grade	numb	e	om	Star	ol	er	nt	hat	g	nt	nt	S	er	
	er of	univers	Tree	Learni	onlin		QQ		Tal	meeti	class	Onli		
	stude	ity		ng	e				k	ng		ne		
	nts	MOOC		Conne										
		S		ct										
First-year	1350	1345	1335	443	599	532	1122	747	340	1326	119	53	157	

undergrad uate student													
Second-ye ar undergrad uate student	932	917	397	305	288	431	782	366	179	916	181	43	103
A junior undergrad uate	888	817	564	429	193	393	682	410	257	880	79	100	91
Junior college students in the first year	1998	1985	1976	1049	1028	688	1599	921	384	1972	209	40	253
Junior college students in the second year	1171	1068	640	414	203	631	1122	541	490	1153	163	10	137
Junior college students to the first year of undergrad uate	474	471	436	222	117	160	388	280	212	470	81	31	33
Total number	6813	6880	6043	2891	2824	272 7	5695	3471	171 2	6890	788	320	794

#### 1.2 Research Methods Used in This Study

In this study, quantitative analysis and qualitative analysis are adopted. Specifically, questionnaire survey and interview are combined to analyze the problems students encounter in using the teaching platform and their views on online teaching. The questionnaire was distributed and collected on June 4, 2020 solstice and June 10, 2020 on the platform of Qingguo Educational Administration System of Academic Affairs Office. The questionnaire adopted a structural formula and involved the number of online courses and offline learning time of students. The learning style of online courses; The situation of completing the learning task; Online interaction between teachers and students; Students' evaluation of the effect of network teaching; The e function of the network teaching platform used by students; Major difficulties encountered in online learning; What kind of help students want; Students' suggestions for online teaching. A total of 6,924 college students participated in the questionnaire survey, and 6,813 valid questionnaires were collected with an effective recovery of 98.4%. Among them, 2,968 are male, 3,845 are female, 3,644 are undergraduates and 3,169 are junior college students. Unstructured interviews were conducted with 27 students randomly through online chat tools.

# 1.3 Main Problems Existing in Online Teaching of Students

Survey found that, the amount of time spent in student centered largely in the online teacher learning, led by more than seventy percent of the students in class and learning for class live online

class is given priority to, offline learning time is less, 72.5% of the students are not active learning offline, offline time under four hours of autonomous learning, 29% of the students in offline autonomous learning with no more than two hours; In terms of task completion, 80.5% of the students said that they could basically complete the task, and 8.8% of the students said that they could not complete the task, among which only 38.9% of the students said that they completed the task independently, while the others could only complete part of the task by themselves; In terms of teacher-student interaction, 19.6% of students said they often interact, 70.4% said they occasionally interact, and 4% said they never interact. In the survey of teaching effect, only 8.2% of students said the effect of online learning is better, while 31.6% of students clearly said the effect of offline learning is better than that of online learning. The main difficulties encountered by students in online teaching are network congestion 72%, poor self-control, easy mind wandering 59.8%, difficult operation of network equipment and platform 36%, unable to realize effective interaction 27.4%, and lack of learning resources 18.2%. After the school teaching ways: there are 3859 students hoping to use offline teaching way or offline teaching primarily, online tutoring in a way that the combination of teaching, accounted for 56.6%, with 1832 students want to back to school after the use of online teaching and online teaching is given priority to, offline counselling to the combination of teaching, 1122 students in two minds, after back to school as the case may be. The above data collection shows that there is a high consistency in the survey data among students of all grades.

To sum up, the research data show that college students mainly have the following problems in the process of online teaching:

## 1.3.1 Unable to Skillfully Use the Functions of the Teaching Platform

In addition to network congestion, difficulty in operating network equipment platforms is one of the main problems encountered by students, with 36% of students in the survey having encountered this problem. This kind of problem is in essence the adaptation problem of the students with the rapid development of information technology and communication technology, there will be more network teaching platform and network communication tools have been developed for online teaching, therefore, lifelong learning is not only a concept, but also a trend, the students in the adaptation, accept and learn new things, schools and teachers should be directed, but more importantly their own continuous exploration and learning.

#### 1.3.2 Failure to Realize Effective Interaction in the Learning Process

Effective interaction can let teachers and students can happy experience of teaching and learning, in the happy atmosphere of learning can improve the efficiency of learning, teaching, online teaching compared with the off-line in interaction between teachers and students, and hands-on, reduced the interest of teaching, students have more opportunities in the offline class to operate, interaction between teachers and students, or a group discussion, Oneness and online teaching platform determines the college students in the learning process is hard to realize the interact with teachers, and learning peer interaction, and the lack of this kind of interaction will make the teachers and students were lack of interest, the enthusiasm of teaching and learning will be hit, some students prefer to chat with my classmates, playing games is also not good listening to lectures, is think learning knowledge itself not to let the students have access to.

# 1.3.3 Poor Self-Control in the Learning Process

Online teaching to the students' self learning, self control ability is higher, offline teacher will monitor the state of learning of the students in teaching, online teaching and teacher to student's

regulation, are difficult to implement students' autonomous learning consciousness is not strong, vulnerable to the influence of the external environment and the influence of network environment, especially the network information developed now, all kinds of games, advertising push very frequently, for the students' ability of self control is a huge test.

# 2. Analyze the Causes of Problems in Online Teaching from the Perspective of Students

#### 2.1 Students Have Passive Thinking and Cannot Actively Solve Problems

Traditional offline to students in the classroom teaching methods has been in a passive position, the passive is mainly embodied in the passive learning, passive do homework, take notes of the passive, passive examination and so on, this kind of passive way of education leads to the students' passive thinking, passive teaching platform waiting for the teacher to teach students how to operate, how to use the teaching software, few students take the initiative to explore teaching platform is those functions? How do you use it? Few students think about whether the learning style should change under the new teaching method of online teaching. The main factors that affect college students' independent learning are self-concept, learning attribution and learning environment adaptation[1]. Students with a positive self-concept are clear about their goals, more willing to seek help and actively adjust their learning methods when they encounter difficulties, and more likely to summarize and reflect from their own factors. Students' internal attribution of success or failure can enhance their sense of self-efficacy and stimulate their learning motivation[2].

# 2.2 Students Are Lazy and Evasive

Students' laziness is actually a manifestation of academic procrastination. In interviews with students, it was also found that many students themselves reflected that they were terminal patients of "lazy cancer" and always wanted to procrastinate. Unless the teacher stipulated "dead line", they would not go to do their homework. This kind of delay will cause the anxiety of college students. In the interview, it is also found that college students show strong anxiety when they encounter exams, quizzes or homework, and they are afraid of being asked by the teacher. Some students even show physiological phenomena such as insomnia, nervousness and sweating.

#### 2.3 Students Have Poor Self-Control, and the Duration of Immersive Learning is Short.

Immersive learning state is a learning state, which refers to a learning state in which students devote themselves to learning things, persistently. In this state, the brain is in a fast running state and the learning efficiency is very high. In the process of online teaching, it is difficult for college students to achieve the state of immersive learning, and even if they can, most students maintain it for a short time. Students' ability of independent learning and self-control is poor. Another important reason is the traditional education mode. Students have been arranged by their parents for various remedial classes and interest classes since childhood, and are controlled by teachers for various assignments and tasks.

#### 2.4 Students Are Distracted

College students' online learning attention easily, on the one hand, because in the digital learning environment, learners' attention to the text form of the digital resources generally under 10 minutes, keep time for video form of digital resources keep time attention generally under 20 minutes[3]. On the other hand, there are many uncontrollable factors that affect attention in the online teaching

environment. Learning in a classroom environment has a strong learning atmosphere and teachers' supervision, while online learning at home is influenced by family members' activities and the surrounding environment of the home. In addition, entertainment games, social networking information on computers and mobile phones will also have a great attraction to students, and students learning behavior under the constraints of the little, leading to the students' attention easily distracted[4].

## 3. Suggestions for Improving Students' Online Learning

## 3.1 Task-Driven to Help Students Learn Independently

To cultivate college students' autonomous learning ability, first of all, we should help students to establish positive self-concept, pay attention to cultivate students' sense of self-efficacy, and guide them to establish the concept of autonomous learning. Secondly, we should guide college students to make attribution from the inside, so as to help them recognize the root of problems and motivate themselves to work harder. Finally, schools should create a good independent learning environment for college students, provide rich and high-quality educational resources, reform the traditional teaching methods and evaluation methods, and remove obstacles for college students' independent learning. It should be noted that autonomy is not to let students drift, teachers should take on the role of guidance and supervision. Teachers can assign tasks to students in the form of tasks, and clearly explain the reasons for assigning tasks, so as to help students realize self-learning of new things and new knowledge. On the other hand, as college students, in addition to search engines and online learning platforms, they should learn a variety of ways to access learning resources, such as literature databases, professional forums, communities, etc. Use the network actively, improve the ability of autonomous learning. At the same time, we should timely use network learning equipment to communicate with classmates, friends and teachers, and work together to overcome difficulties when we encounter problems.

### 3.2 Goal Guidance Improves Students' Self-Control Ability

"Problem orientation" is an effective approach to "fragmented" knowledge learning in the "Internet +" environment[5]. Teachers design practical tasks that students are interested in and challenging according to the "zone of near development", and carry out "anchored" teaching. Before online teaching, teachers provide students with electronic textbooks, courseware and learning background and other "scaffolding" materials, so that students can prepare the necessary preview. In online teaching, new knowledge, teaching cases and demonstration operation steps can be quickly conveyed through "flipped classroom", micro-class or PPT recording screen, etc. Teachers "live broadcast" skill essentials, so that students can understand the main content of learning without feeling tired. Set challenging questions with different levels of difficulty and ease, so that students can fully debate and negotiate in the class "discussion area" in a way of division of labor and cooperation, and reach a consensus, and "show" new knowledge, new skills and new discoveries, so that students can "fill" the sense of existence and get a sense of achievement; Set comprehensive problems, let students "use" the newly learned knowledge and skills to solve problems, encourage students to use information learning tools to complete tasks "offline" independently; Integrated use of "thumb up" and "medal of" virtual methods such as cooperation and competition, community identity, such as interpersonal way, maintain the students' learning motivation level, "incentive" students review, association, description and application from the related experience in learning knowledge and skills, make students take the initiative to adjust and control the learning process, finally to complete the learning task "autonomy" way. It is worth noting that students' independent online learning is not active or independent learning, so it is necessary to accurately analyze the learning situation, design interactive online teaching activities, and gradually enhance students' independent learning ability under the guidance, help, support and inspiration of teachers, so as to lay a solid foundation for lifelong learning.

## 3.3 Set Up Reward Links to Increase Interest and Interactivity

"Emotion and desire are the driving force behind all human endeavor and creation, however superficially superior the effort and creation presented to us (Einstein)".In "epidemic" of bad learning environment, students learning period body virus risks that occupy the home, psychological suffering across the medium test anxiety, negative emotions and parents and other family members or friends will produce "infected" effect, mood and emotion is the foundation of effective stimulate students learning motivation and maintain good interpersonal communication between teachers and students. Each big online teaching platform will continue to strengthen the function of the interaction teaching software, at the same time in the online teaching process, teachers should shut down unnecessary features, such as the discussions "silence" ways to reduce the external load, the interactive link, make full use of teaching platform "vote" function on stand, "barrage" function to carry out the discussion and published "submission" function view, foil gives active classroom atmosphere, teachers and students through effective interaction to achieve psychological experience of empathy; Thirdly, the virtual class community of "establishing friendship, benign competition, and strengthening the spirit" should be formed. Let the class community not only become a place to impart knowledge, but also a place where a group of people of the same age live together. Let the virtual materialized technology space flow with real teaching emotions, and give full play to the role of emotional experience as a link to maintain online teaching.

In conclusion, in the face of the new teaching mode, online teaching on college students' physical and mental are brought great influence, especially on students' learning style, learning psychology and self-control ability put forward higher challenge, to improve the learning effect of online teaching, on the one hand, want to rely on the teacher's guidance, change the way of online teaching, and the core of the problem lies in the transition of the students themselves, shift to escape the psychological, learning ways and methods, actively adapt to the new teaching way, to be prepared for lifelong learning.

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