Science Insights
Education Frontiers

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Future Planning and Achievement among Chinese Students

By Zhao, J., Li, R., Ma, J., & Zhang, W.

SEVERAL studies have indicated the benefits of future planning to academic achievement, but not many have examined whether academic achievement also influences how students plan their future. Zhao and colleagues from Shandong Normal University conducted a longitudinal study to examine the relationships between Chinese junior high school students' academic achievement and future planning in educational and occupational domains.

This study conducted three assessments six months apart from Spring 2014 to Spring 2015 in Shandong Province in eastern China. Seven hundred and seventy-five students from sixth to eighth grades participated in the first assessment wave. The questionnaire measured students' future explorations, commitments, and their affects concerning future education and occupation. Data of their academic achievement were collected from school records of their scores in Chinese, English, and mathematics. The relationships were analyzed with data collected at different times.

The analysis showed that:

- There were reciprocal relations between academic achievement and Chinese junior students' future educational planning.
- However, reciprocal relations were not held between academic achievement and future planning in the occupational domain.
- Commitment's relation to achievement was more robust than that of exploration to achievement.
- The relationships were the same for both boys and girls.

The authors suggested that understanding the importance of educational performance led junior high school students to invest more effort into improving achievement. The social status brought by high academic achievement in Chinese society might also trigger positive affects concerning future planning.

Source: Journal of Adolescence, 2019; 75:73-84.

Long-Term Effects of Social-Emotional Learning

By McCormick, M.P., Neuhaus, R., Horn, E.P., O'Connor, E.E., White, H.I., Harding, S., Cappella E, & McClowry, S.

A STUDY published in *AERA Open* looks at the long-term effects of the INSIGHTS program-a social-emotional learning intervention that supports children's ability to self-regulate by enhancing their attention and behavior management.

Between 2008 and 2012, a total of 22 elementary schools from three New York City school districts were randomly assigned to participate in the INSIGHTS program or to an attention-control condition (an after-school reading program). A previous study found that the INSIGHTS program reduced children's disruptive behavior and increased behavioral engagement by the end of first grade. This study uses administrative data for those students to examine whether receiving the intervention in kindergarten and first grade had any impact on provision of special education services or grade retention by the end of fifth grade. The study also considers whether impacts varied for low- versus high-income students.

The findings suggest that:

- Students in the INSIGHTS program were less likely to receive special education services between kindergarten and fifth grade (p < .05).
- In addition, low-income students enrolled in the INSIGHTS program were also less likely to receive special education services between kindergarten and fifth grade compared with low-income children enrolled in the attention-control condition (p < .05).
- There were no effects of INSIGHTS on grade retention up to the end of fifth grade and this did not vary according to income.

Source: AERA Open, 2019; 5(3):1-21.

The Effect of Screen Time on Academic Performance

By Adelantado-Renau, M., Moliner-Urdiales, D., Cavero-Redondo, I., Beltran-Valls, M.R., Mart ńez-Vizca ńo, V., & Álvarez-Bueno, C.

A META-ANALYSIS examining the evidence between overall screen time, specific screen-based activities, and academic achievement found that overall screen time is not related to children's and teens' academic achievement, yet the type of screen time is.

Mireia Adelantado-Renau and colleagues in Spain found that TV and video game time greater than two hours a day was associated with poorer academic achievement, while internet and mobile phone time was not. In addition, the negative effects on academics were larger for teens than for children.

The meta-analysis included 58 studies from 23 countries that met its inclusion criteria, encompassing the academic achievement of 106,000 4-18 year olds (assessed by school grades, standardized tests, and academic failure). Subgroup analysis was conducted between children and teens. The findings were:

- In children (4-12 years old), the length of TV watching negatively affected performance in language (ES= -0.20) and math (ES= -0.36).
- in teens (12-18 years old), longer TV duration affected language (ES= -0.18) and math (ES= -0.21).
- Playing video games also negatively impacted teens' scores (ES= -0.16), but did not affect the scores of younger children (ES=+0.04).

The authors suggest that these findings offer evidence that decreasing TV and video game time might be an effective strategy in improving academic achievement in children and teens.

Cultural Reproduction or Cultural Mobility? A Study on the Social Stratum Differentiation in Academic Achievement of Middle-school Students in China

By Ma H.J, & Zhang W.G.

AN experimental study published in *Education and Economy* analyzes the effect of different types of cultural capital on the academic achievement of middle school students and the heterogeneity among different classes in China. The study uses data from China Educational Panel Survey (CEPS)in the 2013-2014 school year and the sample includes more than 20,000 students from 112 schools. With the academic achievement as the dependent variable and the cultural capital as the core independent variable, multiple linear regression model is adopted for analysis according to the characteristics of the dependent variable. According to the combination of variables, there are six different models, and the results of each model are as follows:

- Taking family background as the independent variable and controlling relevant variables, the regression analysis on academic performance finds that (model 1), there is a significant class gap in academic performance, and children of professional and technical personnel and business service personnel have better academic performance than children of reference families.
- Based on model 1, the analysis of cultural capital related variables (model 2) shows that cultural capital plays a significant role in the overall performance.
- On the basis of model 2, model 3 adds interaction items between parents' occupation and family cultural facilities. The analysis shows that the higher a family's socioeconomic status, the greater the effect of the family's cultural facilities on their children's overall achievement will be. Combined with model 2, it can be inferred that family cultural facilities can still play a positive role for children of families with higher socioeconomic status.
- On the basis of model 2, model 4 adds the interaction item between parents' occupation and parents' education year. The analysis shows that the higher the family's socioeconomic status, the greater the

positive effect of institutionalized cultural capital on overall achievement.

- On the basis of model 2, model 5 and model 6 add interactive items of parents' occupation and parents' participation in reading activities, and interactive items of parents' occupation and parents' participation in cultural activities respectively. Based on the analysis results, it can be inferred that although parent-child reading activities have no significant effect on improving the overall achievement, they play a certain role in the families of managers, professional technicians and business service personnel. Although the participation of parents and children in cultural activities has a negative impact on the overall achievement, the "harm" is different to families of different socio-economic status.

This study refines the categories of cultural capital and analyzes the impact of different cultural capital on students' studies. On the one hand, it enriches the understanding of different types of functions of cultural capital in Chinese social background; on the other hand, it is helpful to understand how cultural capital plays a role in social stratification.

Source: Education and Economy, 2019; 35(1):25-34.

Influence of E-Reading on Story Comprehension of Young Children

By Lv, X., Guo, L.P., & Jiang, L.Y.

E-STORYBOOKS are used by more and more families and schools, and their impact on children's story comprehension has attracted many scholars' attention at home and abroad. However, the results of the study lack comprehensive and quantitative analysis. A study published in the e-Education Research used meta-analysis to screen and retrieve 24 domestic and foreign related experimental research documents from 2000 to 2017. The effects of e-reading on young children's story comprehension were moderated from four aspects: the functional characteristics of e-storybooks, adult accompanying reading, subject's socio-economic status and grade, and cultural background. The results show that:

- The study found that the functional characteristics of e-storybooks had no moderating effect on children's story comprehension ($Q_{between}$ (1) =0.790, p=0.372). That means, there is no significant difference between the two characteristics of e-storybooks (single multimedia function, multimedia and interaction function integration) on children's story comprehension.
- Adult accompanying reading can significantly regulate the story comprehension of e-storybooks and traditional storybooks ($Q_{between}$ (1) =4.252, p=0.039).
- The study found that the socio-economic status of the subjects had no moderating effect on the story comprehension in e-reading ($Q_{between}$ (1) =0.468, p=0.494), it shows that the influence of e-reading on children with different socio-economic status is consistent as a whole. At the same time, children's school grade had no effect on story comprehension in e-reading ($Q_{between}$ (1) =0.550, p=0.458), it means, the effect of e-reading on children's story comprehension in the two different grade is comparatively consistent.
- The cultural background had no regulating effect on the story comprehension effect of e-reading. ($Q_{between}$ (1) =0.16, p=0.689), that is to say; the influence of e-reading on children's story comprehension in the background of Chinese and Western cultures is the same.

The author suggests that future studies may further explore the role of adults in children's e-reading and the specific impact of multimedia and interactive functions of e-storybooks on children's story comprehension. In addition, we can further explore the impact of e-reading on children's vocabulary learning, phonological awareness, reading interest, reading behavior and so on, and focus on the role of e-reading on children with special education needs.

Educational Changes in the Process of Social Transformation from the Perspective of County: Taking Elementary Education in Dongtai in the Early Years of the Republic of China as an Example

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Abstract: *In the early years of the Republic of China, elementary education in Dongtai County was a microcosm of basic education at that time. The development of elementary education in Dongtai has twisted and developed under the background of the characteristics of civilian education, focus on moral education, support of squires, parallel between government and private affairs, and home-school liaison. As well as practical problems such as frequent personnel changes, restrictions on traditional private education concepts, and lack of teachers, it reflected the evolution of Chinese education in the early years of the Republic of China.*

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The Social Background of the Rise of Elementary Education in Dongtai in the Early Years of the Republic of China

THERE are many related research articles on the history of education in China. However, the content related to county education has not attracted enough attention from the academic community, and the educational changes that have occurred in the social transformation from the perspective of the county are few. This study studied the running of Dongtai elementary education in the late Qing dynasty and early Republic of China, combined with the political economy and culture of the time, and placed it in the context of elementary education in Jiangsu province and even the whole country to analyze its characteristics. The commonality in the same vein highlights the individual reasons behind it. This study intends to describe the social background, general situation, development characteristics, and shortcomings of the rise of elementary education in Dongtai in the early Republic of China. It will research through the exploration and excavation of historical documents to fill the gap in the history of elementary education in Dongtai in the early years of the Republic of China, and then to explore one of the changes in education in the process of social change from the perspective of the county. At the same time, studying its characteristics and deficiencies and enlightenment can also provide some reference for the development of contemporary elementary education.

The research object of this study is the elementary education in Dongtai, Jiangsu in the early years of the Republic of China. It is better to say that it is the education situation in Dongtai in the late Qing Dynasty and the early Republic of China. Because the middle school education and Normal education in Dongtai area emerged as soon as possible in the 31st year of Guangxu in the Qing Dynasty (1905), the Republic of China was built, and the former middle school and normal school in Dongtai County were suspended immediately. In the end of the Qing Dynasty, Jian Zhang, the No. 1 champion, established a mother-teacher teacher in Dongtai, and Dongtai teacher education was restored. The restoration of Dongtai County Junior Middle School by the Dongtai County Office in 1924 marked the restoration of Dongtai Middle School education. Therefore, only the elementary education situation in Dongtai County exists in this historical section studied in this article, which can also reflect the entire situation of Dongtai education in the early years of the Republic of China.

The late Qing government promulgated the charter of local autonomy, promoted local autonomy in cities and towns, and implemented a system of county, city, and township autonomy. Its purpose is to "uphold political governance and down for peace", and "to help the inadequacy of government".[1] Until the founding of the Republic of China, the old system is still being used. The overall pattern of Dongtai County is 18 cities and 9 townships. Set up Dongtai, Hedu, Anfeng, Fuanxi, Fuandong, Liangdu, Nanxun, Daxing'an, Shiyan, Ercha, Sanlitze, Dingcao, Xiaohai, Shenzao City, Shenjiabang City, Qihu City, Haiyan City, Siantuan City, Qingpu Township, Xixi

Township, Jiaoxian Township, Louzhuang Township, Tangganghe Dong Township, Baozhuang Township, Mengfenghe Township, Zhou Chen Xiang and Heluoyu Township count 27 cities and towns.

The history of Dongtai Elementary School can be traced back to 1902. According to the statistics of the "Dongtai County City and Township School Statistics Table"[2] in the last three years of the Republic of China, there were 35 elementary schools in the county in the late Qing Dynasty, including 24 public schools and 11 private schools.

In the 28th year of Guangxu (1902), Anfeng Private Shanshan Junior High School and Dongtai Private Shanyu Junior High School founded in Guangxu 31st year (1905) were established the earliest. There are 12 elementary schools (including public and private), which are examples of Dongtai districts and have a certain scale. In the thirty-first year of Guangxu (1905), Bencha Qixiu Junior High School was established. Its predecessor was Qixiu Academy founded by Yingchen Cai[3] in twenty-four years of Guangxu (1898). "Jiangsu Provincial Inspection Hours Assessment" (1913) states: "On the education development of the city and township, only the Bencha City is the most developed and the results are relatively good."[4]

In the thirty-first year of Guangxu (1905), with the approval of the "Liangjiang Academic Affairs Office", the establishment of the official Dongtai School in Kuixing Tower, Taicheng on November 18 of that year marked the beginning of the earliest official school in Dongtai. According to Cheng Ji's[5] "Diary of Lu Xuezhai", a teacher of the school, when the school opened, it only had a high school class. It was the earliest government high school class. The next year (1906), a middle school class was established. The county middle school and the attached high school hall were called "two halls" at that time, and the instructors were Cheng Ji, Qishou Chen[6], Ruyu Chen[7], etc. Xuan Tong third years (1911), the elementary school class was changed to a normal class, the school name was easily changed to "Dongtai County Middle School and Normal School", until the first year of the Republic of China (1912) the school was closed for some reason. The High School was relocated to Xixi Academy in 1911, and moved to the west of Taicheng Academy in 1912, and later became the first high school in Dongtai County.

The above school running situation was closely related to the rise of elementary education at that time. The late Qing and early Republic of China was the germination and development stage of modern education in China. The economic development and the influx of western democratic and free scientific thoughts made elementary education in the province prosperous.

According to "The Guangxu 27th (1901) on the second day of August, the provinces, prefectures, Zhili prefectures, and prefectures and counties reorganized the colleges into elementary, middle, and elementary schools", the purpose of consolidating "talents as the foundation of government affairs"[8] was ordered to reorganize academies and schools of justice across the country. The "Ren Yin School System" and "Gui Mao School System" have preliminarily established the national education tenet of "middle school as the body and western learning as the use" and "loyalty to the monarch, respect for Confucianism, respect for martial arts, and authenticity". The abolishment of the

imperial examination system and the promulgation of the "School Charter for Women's Elementary Schools" formed a complete school system of elementary education based on the idea of "founding the country", and paved the way for the transition and development of modern education to modern education.

According to "Jiangsu Province Chronicle - Education Chronicle": "In the 33rd year of Guangxu (1907), there were 1,632 elementary schools in Jiangsu Province, including 217 second-class elementary schools, 91 advanced elementary schools, 1,105 elementary elementary schools, and half-day school 123. There are 96 women's schools. The total number of students is 49,921."[9]

According to the "Dongtai County Chronicle", in the 31st year of Guangxu (1905), Jiangsu Province ordered Dongtai County to establish a county school office. In 1907, the Dongtai Society was changed to the Dongtai Education Association, and the Dongtai School Office was changed to a persuasive school.[10] At this time, the setting of elementary schools in Dongtai County was a peak in the years after the thirty-first year of Guangxu (1905), and emerged one after another.

The third year of Xuantong (1911), the Revolution of 1911 broke out. Dongtai, Jiangsu is located in the middle of Jiangsu Province, facing the Yellow Sea in the east, Yancheng in the north, Taizhou in the west, and Nantong in the south. Peace was restored under the efforts of enlightened squires led by Gongfu Yang[11] and Litang Ding[12]. Due to the chaos at the turn of the times, at the beginning of the reform, most of the elementary education in Dongtai County was facing stagnation, and there was an urgent need to reform and establish a group of elementary schools to meet the needs of the current development. In the first year of the Republic of China (1912), Jiayu Qiu, a native of Dongtai, served as the teaching faculty member of the first high school in Dongtai County.

Yulin Cui[13], the principal of Dongtai County First High School at the time, said: "After the recovery of Wuyi, the county school was only a high school, and the rest of the city and township education, except Bencha City, have no perspective. The popularity of education is difficult."[14] This showed the general situation of elementary education in Dongtai County in the early years of the Republic of China. Qiu Jiabiao said, "Overviewing the education status of the counties in the province is changing with each passing day, and the Xishan River in the south of the Yangtze River and the Chongchuan River in the North of the River have made progress in a thousand miles, and there has been great development."[15] At this time, the education of Dongtai County was far less than that of South Yangtze River, which was guaranteed by the flourishing economy and culture, but compared with the momentum of "one thousand miles a day" education in Nantong and Rugao, the neighboring counties in the same north, there was also a gap. Restoring the old school and setting up a new school has become a top priority for Dongtai education at this time. In the first year of the Republic of China (1912), the Ministry of Education promulgated the General Order on Interim Measures for General Education and the Standards for Interim Courses on General Education. In April of the same year, Yuanpei Cai's "Opinions on Educational Guidelines" and subsequent education conferences determined the education of "emphasis on moral educa-

tion, supplemented by utilitarian education, military-national education, and aesthetic education".[16] The purpose embodies the educational thought of the comprehensive development of moral, intellectual, and physical beauty. In September 1912, the Ministry of Education promulgated the "Elementary School Decree", which aims at "paying attention to children's physical and mental development, cultivating the foundation of national morality, and giving them the knowledge and skills necessary for life."

A Survey of Dongtai Elementary Education in the Early Years of the Republic of China

According to the "Statistical Table of Schools in Dongtai County",[17] the third year of the Republic of China (1914), there were 77 schools in all cities and towns in Dongtai County. Among them, there are 2 county schools, which were established in the first year of the Republic of China (1912) in the first high school of Dongtai County in November in the first year and in the second year of the Republic of China (1913) in Dongxiang Old Town. There were 76 students in Dongtai County First High School, 60 people in Dongtai County Girls Junior High School including 29 juniors and 32 seniors. There were 58 township schools in the city. Dongtai City in the urban area includes the first, second, third, fourth, fifth, sixth, and seventh elementary schools in the city, and Hedu City in the urban area includes the first, second, third, and fourth elementary schools in the city. The size of Bencha City was the same as that of Dongtai City. Secondly, Anfeng City, about thirty miles southeast of Dongtai County, included one municipal elementary school, and one each for the first and second elementary schools. Totally, there were seventeen private schools. Three urban districts are private Shanyu Junior High School, private Weidong Junior High School, private Qidong Women's Junior High School; two Anfeng schools, private Shanshan Junior High School, and private Xixi Elementary School; two Nanxun Elementary Schools, It is a private Longtan, Longtan Women's Elementary School; seven teas, private Miao's, Xu's, Cai's, and civilian elementary schools, private Cai's Junior High Junior High School, private Cai's Girls, Cai South South Elementary Elementary School; Daxingcheng City There is one private Shihua Junior High School; Qingpu Township has two schools, which are private Zhenxin Junior High Schools and private Qixiu Girls High Schools. There are no elementary schools in the four districts of Xiaohai City, Shenzao City, Haiyan City, and Xixi Township. In the three years to the Republic of China (1914), there were 2,145 students in Dongtai County, 1,669 junior students, 329 senior students, 112 female junior students, and 35 female senior students.

In the third year of the Republic of China (1914), Shikai Yuan restored the imperial system, on the ground of "the Chinese national situation is different from other countries, and it is difficult to adopt a foreign autonomy system. If self-government is a complete auxiliary organ of official governance, and autonomy may not be developed,"[18] it was forced to order the provinces' local self-government systems were suspended. That year, Hongjun Lu dispatched Governor Dongtai as the fifth governor of Dongtai after Baoyin Yang, Nian Yang, Qingchang Luo, and Xueyi Cheng.[19] "Hongjun

came to know that when the autonomy ceased, everything was in order, and there was no lack of delay. Fortunately, the people were enthusiastic about public welfare and carried on as usual in the education department. Schools in various cities and towns have been promoted and gradually completed.[20] He left office in July 1914 the following year. The sixth county chief Suizhi Yan inspected the situation of elementary schools in Dongtai County, and analyzed the necessity and importance of Yiyi's elementary education. "Education is the foundation of a nation, and elementary schools are the foundation of all education. There are countries in every civilization of the world. There are schools in the world. We must pay attention to elementary schools as a source of talent."[21] At this time, the establishment of the elementary school in Dongtai County has begun to take shape compared with the predicament of the first year of the Republic of China. "Fortunately, the Yi Elementary School has been established and has a scale. With the promotion, the basics of national education are all right."[22]

According to the third year of the Republic of China (1914): see **Table 1**.

Characteristics of the Development of Elementary Education in Dongtai in the Early Years of the Republic of China

Education Focus Shifts to Civilians

Since modern times, Western learning has gradually spread to the east, and the popularity of education has been extended and developed in the exploration. Under the intense social changes in the late Qing Dynasty and the early Republic of China, the focus of education dropped to the civilian class.

According to "Dongtai County Chronicle" (1817-1911), "Dongtai County Chronicle of Events", in the first year of Guangxu of the Qing Dynasty (1875), Dongtaichang Salt Merchants donated a Peiying Yixue School.[23] In the 28th year of Guangxu of Qing Dynasty (1902), Peiying Elementary School, the first school in Dongtai County, was established.[24] In the third year of the Republic of China (1914), the Dongtai County Office proposed that this specific measure be prioritized by the county and township school directors for the popularization of education. In the "Educational Situation of Dongtai County", it is emphasized: "Educators in Dongyi cities and towns are enthusiastic in education, and they have outstanding achievements. However, the prosperity of education must be universal. The establishment of schools is not tiresome. Gou Nengdu promotes, on average, two schools per city and one school per town. Since then, but within four years, the county school district can be fully established. And school-age children have never lost school.[25]At the same time, the city and township school directors put forward four requirements that must be prioritized in education: that in addition to planning and controlling related funds, school-age chil-

Table 1. Basic Information of the Schools.

School Name	County First High School	County Girls' Middle School	Private Shanyu Middle School	Private Victoria School
Established	The first year of the Republic of China (1912) November	The Republic of China (1913) January	Thirty-one Years of the Guangxu Period of Qing Dynasty (1905)	The first year of the Republic of China (1912)
Address	West of School Palace	East Lane Guard Camp	Jishantang	Guangji Bridge South
Principal	Cui Yulin	Yuan Yushan, Zhao Yushan	Zhou Guojiang	Shen Jizhou
Teaching Staff	Lu Xinlu, Du Ji, Wang, hiying, Zhai Jun, Zhou Zhiding, Sun Yan	Zhang Shaotang, Zhai Chengyi, Zhang Liu Jingqi	Zhou Guojiang, Ren Houzhen, Zhou Zhiping, Miao Xiping	Shen Jizhou, Wang Yongnian
Total Student #	76	60: Elementary 29, Higher 31	52: Elementary 22, Higher 30	63: Elementary 33, Higher 30
School Year	Three years	Two years	Two years	Two years
School Time	30 Class hours per week in first grade; 33 class hours per week in the second grade	Elementary 26 hours per week; 32 lessons per week	Elementary 25 hours per week; 30 class hours per week	Elementary 25 hours per week; 30 class hours per week
Annual Budget	3,072 yuan	1,200 yuan	1,100 yuan	1,023 yuan

dren in the city and township must be identified to promote the city and township schools.

With the conflict between western industrial civilization and Chinese traditional culture, some advanced intellectuals became more aware of the country's social crisis. The understanding of the West has gradually shifted from the military and technical level of the Westernization Movement to the ideological level. From "teachers to improve their skills through control" to "teachers to improve their skills through self-improvement", they have increasingly realized the importance of opening up the wisdom of the people. The first step to open up the wisdom of the people is to face the bottom of the society and move towards civilians, so that those who are unable to go to scholars or scholars who have lost their education or even have a low level of education can obtain corresponding education. Through the popularization of education, more and more citizens will accept the corresponding knowledge and culture.

Establishing Morality and Emphasizing Moral Education

Moral education is especially important for students who have not yet formed their personal values, so the importance of moral education in elementary education is reflected here. As Yuanpei Cai said in his "Opinions on Educational Guidelines": "What is citizen morality? The French Revolution was for free, equal, and love. The essence of morality is the best. The three are the root of all morality and everything about citizenship moral education."[26]

Take the example of a self-cultivation lesson of the first year of the county elementary school in August of the second year of the Republic of China (1913). The textbook used by the teacher Lu Xinlu in the class is the first volume of the self-cultivation textbook published by the book company. Lesson "Fortitude". From the inspection records of the county inspection at the time, it can be seen that: Lu Xinlu's "mildness, sincerity, and sincerity in teaching", "using development-oriented question-and-answer, and finally to develop resilience, don't be afraid to persevere." Napoleon The marching example inspired the self-sustaining nature of children. "A march goes, everything goes. Napoleon was like this, and no one cannot be like this."[27] In January of the third year of the Republic of China (1914), the teacher Shu Di taught a self-cultivation course for the school's one-year student. The textbook used was the second volume of "Self-cultivation" published by the Commercial Press. Instructor Shu Di "the teaching materials are very easy to use, and can focus on movement, which is in line with the essence of self-cultivation."[28] And training in the professor, not only increase children's knowledge, but also cultivate character.

In the early years of the Republic of China, elementary school moral education was mainly reflected in the setting of self-cultivation. During this period, the educational purpose of the self-cultivation course in elementary schools changed from the traditional moral education of "loyalty, filial piety, and justice" to the moral education of citizens. In the first year of the Republic of China (1912), the Nanjing Provisional Government deleted "loyalty" and "respect for Confucius" in its educational purpose. The "self-cultivation" curriculum in the elementary school emphasized virtues such as filial piety, faithfulness, courage, frugality, hard work, and cleanliness.[29] At the same time, the Ministry of Education issued a new educational purpose: "Emphasis on moral education, supplemented by practical education, military education, and aesthetic education to complete its morality."[30]

Supplementary Funding, Squire Support

In the early years of the Republic of China, under the real situation of severe shortage of government education funding, the state advocated "education autonomy", that is, to encourage private capital to run schools. During this period, local education funding relied heavily on the support of squires everywhere, and Dongtai was no exception.

After the Revolution of 1911, the former Dongtai County and Dongtai School Supervisor Yuantai He[31] fled with the funds, resulting in a financial deficit in the Civil Affairs Department of Dongtai County and a serious shortage of education and financial funds in Dongtai County.

As the county education inspection Qiu Jiazheng said in the inspection report of the state of education in Dongtai County in the second year of the Republic of China:

"Chadong County has education funding, which includes basic income and taxes every year. However, it will cost more than 7,000 yuan (Currency of the former Republic of China). In the future, county schools will gradually be established. Without a rice cook, a clever woman cannot do it. Instead of digging into thirst, why not plan

ahead. This county has education funding, but also the urgent task today. There are basic assets and miscellaneous donations. It is proposed that in addition to the original 40% of the additional tax, the county public office will plan the budget. For details, check and execute by inspection history. Chadong Education's old basic products and various miscellaneous donations were lost. Non-strict is buried, not enough to rectify. It is planned to expand each of them separately."[32]

With regard to planning for urban and rural education funding, Article 2 of the "Amendments to the Regulations for Planning the Educational Costs of Counties, Towns, and Villages" specifically proposes the sources of planning for urban and rural education funding: the original tax and miscellaneous donations, public funds and public property of the municipal and rural governments, and county financial appropriations. And squire support. In addition, while cleaning up the basic assets of urban and rural education, additional taxes and special taxes will be levied, as well as miscellaneous donations of consumables such as tin foil and cigarettes. The arrangement and expansion of education funds provide a strong guarantee and a solid foundation for the normal operation of the school. Take for example the control of school funding for county elementary school teacher's workshops and higher schools: **Table 2**.

Since the Song Dynasty, the school field system, which has emerged as the times of the imperial examination system, has continued. That is, the school field under the control of academics, teachings and other local officials earns funds in the form of rents to support the local school academies' maintenance expenses. Dongtai was originally a Taizhou territory of Yangzhou Prefecture. In the 33rd years of the Qing Dynasty in Qianlong (1768), Dongtai was separated from Taizhou to establish a county. "In the thirty-three years of Qianlong, it was agreed that Taizhou, a government of Yangzhou, Jiangnan, should be divided into Dongtai County shortage, three years of tribute."[33]

In addition to the adjustment of the school's student staffing, Taizhou should be assigned to more than 800 acres of school fields in the newly established Dongtai County, and the rents collected should be used as education funds for the newly established Dongtai County school. However, Taizhou has not delivered to Dongtai, and since the establishment of Dongtai County, Dongzhi County has not mentioned it. The Republic of China was established, and Yang Gongfu, the first civil affairs chief of Dongtai County, discovered the matter from the old archives, and sent a commissioner to Taizhou to investigate and deal with the matter. Under the ruling of the Yangzhou military government, the corresponding school field was finally recovered from Taizhou. The 143-year-old Xuetian account has been clarified since Dongtai County was established. This move spread the word in the academic circles at that time, and also made a significant contribution to the transformation of the education system in Dongtai in the early years of the Republic of China and the development of education.

At the same time, the development of elementary education in Dongtai in the early years of the Republic of China was inseparable from the support of the gentry school board represented by Yinguan Xia, Ji Cheng, Huai Wang[34], and Rong Lu[35]. Xia Guanghou, the son of Yinguan Xia, recalled his father's support for running the school. The text said: "In the first year of the Republic of China (1912), the private

Table 2. School Funding.		
	Elementary School Teacher's Workshop	**Primary School**
First Level Apprentice		
Faculty	1,360 Yuan	320 Yuan
Staff Meal	180 Yuan	90 Yuan
School Fee	160 Yuan	60 Yuan
Daily Expenses	300 Yuan	80 Yuan
Reserve Fee	200 Yuan	50 Yuan
Total	2,200 Yuan	600 Yuan
Second Level Apprentice	3,500 Yuan	1,000 Yuan
Tertiary Apprentice	4,600 Yuan	1,300 Yuan
Note: Yuan is the unit of the currency of the former Republic of China.		

Huainan School of Law and Politics was founded in Taicheng and closed three years later. He then served as a high school supervisor for three years. Difficult, he donated 2,300 yuan and donated over 2,700 yuan of salaries for the post of director of Dongtai Middle School, and donated a total of more than 5,000 yuan. Therefore, he was recognized by the Ministry of Education and awarded the first-class golden medal."[36]

The establishment of educational associations, publicity clubs, newspapers and newspapers and other institutions also played a certain role. The Dongtai County Education Association was presided over by Rong Lu, who later became the editor-in-chief of the "Dongtai County Chronicle". Cheng Ji served as the vice chairman of the Dongtai Heduo Education Association. Liu Xun served as the chairman; Huai Wang the finance director of the county office in the early years of the Republic of China, served as the academic committee member; Yingchen Zhou, a graduate of Lianghuai Middle School and a former teacher of Dongtai Yizheng Industrial School, served as an academic committee member.

The Rise of Private School, Public and Private Parallel

At the end of the Qing Dynasty and the beginning of the Republic of China, government-run schools could not meet the needs of the society, so a number of private schools spearheaded by the Chinese people sprung up. The Qing Government's "Statutes of the Kindergarten Elementary School" encouraged officials and gentry and citizens to run schools independently. In the second year of Xuantong (1910), the Ministry of Qing Dynasty promulgated the "Improvement of Private School Regulations", "If the number of students is more than 30, the annual fundraising should be submitted in detail as a private elementary and higher school.[37] In time, private schools that have reached a certain scale have undergone transformation.

Taicheng Private Shanyu Junior High School was founded in the 31st year of Guangxu (1905), and was reorganized in January of the 2nd year of the Republic of China (1913). Its address was in Jishan Hall at Taicheng. The principal was Guojiang

Zhou[38], and the teachers were Ziwei Miao[39], Yaofu Ren[40], Zhiping Zhou, etc. In terms of practical textbooks, the textbooks published by Zhonghua Book Company were not limited to them. Instead, they were selected by teachers, or adapted, or written by themselves. They noted the combination of old and new, combining traditional ancient teaching motto with fresh knowledge taught. The teaching equipment is advanced and the teaching environment is superior to that of ordinary schools.

From the second year (1913) to the third year of the Republic of China (1914), the county's first, second, and third school teaching conditions were reviewed and reviewed. "Curriculum development was very legal. School buildings had everything and good equipment, and it was the crown of Dongtai. All the content was improving day by day. All professors could adopt the development style. The training was honest and diligent. It was very appropriate. Students were in school, neat and serious, and the management was well-characterized. On the back of the classroom, more windows were opened for easy access. Ventilation was very good for health. Lined in and out for the class, game breaks, and teacher supervised. Each level had a password for the director."[41] In the review of the provincial inspection, it was stated that: "The teacher's self-cultivation, moral character, and more about daily behaviors, as well as the ancient teaching motto, are quite practical. The national language changed is also meticulous."[42]

Taicheng private schools are mostly located in the middle of Cross Street. There are Jishantang's private Shanyu Junior High School, Guangjiqiaonan Private Weidong Junior High School, and Dayuetang's private Qidong Girls' Elementary School. The scale of running these private schools was among the best in the county's education industry.

Home Education, Home and School Communication

In particular, it should be noted that in the late Qing and early Republican period, schools in Dongtai emphasized the need for schools to connect with families in family education, and focused on the cultivation of living ability. This theory and corresponding measures could be put forward a hundred years ago. It can be seen that Dongtai Education in the early years of the Republic of China was quite forward-looking.

Home education serves as the foundation of school education and social education. Words and deeds of parents in the family in the family, the mutual influence between family members undoubtedly played an important role in children.

In the "State of Education in Dongtai County", a corresponding discussion was launched: "Schools have a close relationship with the family. If you want to receive training to achieve results, it is not the school and the family. You can't do anything to complement each other, why not? I come to school only six days a week and five or six hours a day. If home education is not the same as the school's purpose, how hard it is for teachers to pay for it."[43]

Students are the link between the home and the school, so it is necessary to connect the family in education. The methods of contacting the family include: "1) of-

ten investigate the situation of children's families; 2) gather the father and brother of the children to visit the professor, or have a talk with the father or brother, or visit the exhibition of student apprenticeships; 3) notify the children of each family The book is a temporary or regular notice; 4) Keep the children's self-cultivation book and report the main points of the school's dictation to the family; 5) Keep the children's diary on the next day and holidays and present it to the teacher for review and to inform the family situation."[44]

In the first year of Xuantong (1909), Dongtai County Industrial School was established, and Baoshu Di served as the dean. Later, another type of industrial school was established, and manual, arithmetic, business, and gymnastics courses were added. As the county inspector Jiabiao Qiu said:

"Suppressing today's education, why is it about education? It is also the time to break the two-dimensional education of plane education and gradually change the physical education of two-word education. When youth are in school, learn for life, not for school, Western philosophy it has been discussed in detail. Our country's elementary school order, also known as giving the knowledge and skills necessary for life, is about skills? What is necessary for life? Everything is practical. For example, the manual subject is a technical subject. Although it is placed in random subjects, however according to what has been said recently, it is necessary for practical schools. If you pay attention to manual work, you can develop the habit of hard work, which is in line with the purpose of today's education. It can also create physical objects to prepare for other careers. You can also know what you want."[45]

Emphasis on the cultivation of living ability, emphasizing pragmatism is reflected in the innovative level of teaching content. In addition to the general Chinese language, arithmetic, self-cultivation, singing, and drawing, the teaching content includes English, self-study, gymnastics, and games. Reasonably plan the teaching time, with a maximum of 28 teaching hours per week for elementary and elementary schools and a maximum of 30 teaching hours per week for higher and elementary schools. The teacher pays attention to the physical and mental development of the students, and supervises them to increase a certain amount of sports and game time after class. Teachers focus on questioning and developing teaching. These coincide with the quality education that attaches great importance to the ideological and moral construction of the trainees, strengthens the cultivation of living ability, promotes the healthy growth of the body and mind, and emphasizes the comprehensive development of personality.

Quality education aims at improving national quality, comprehensively improving the basic quality of students and promoting their comprehensive development. Elementary education is the foundation of the entire education cause, and it is the top priority of basic education. Therefore, we must strengthen the quality education of elementary students.

During a fierce social change process like the late Qing Dynasty and the early Republic of China, we not only saw the changes in education, but also the importance that people attach to education, especially elementary education in basic education. Taking this step well is not only related to the improvement of national quality, but also

to the national rejuvenation. Students are the hope of the motherland, the future of the nation, and the growth of students is related to the development of society and the prosperity of the country. Good elementary education is essential for children who have not yet cultivated the correct values of life, and it can lay a solid foundation for each elementary student to develop and succeed in the future. Therefore, the importance of elementary education must be taken seriously.

Insufficient Elementary Education in Dongtai in the Late Qing Dynasty and Early Republic of China

The emergence of new elementary education in Dongtai City in the late Qing Dynasty and the early Republican period is not only an inevitable result of the times, but also the desire of the Chinese people for education and the pursuit of knowledge. It is also an important step for the nation to rejuvenate. We can see that the changes in educational concepts, the innovation of teaching content, the rising of more and more private schools, and so on. All of this cannot be separated from the timely supplementation of a large amount of education funds and the full support of enlightened gentry and education groups. The experience of Dongtai elementary school education in the late Qing and early Republican period has certain reference significance for our school's teaching philosophy, school management, and teacher construction.

The lack of elementary education in Dongtai in the late Qing Dynasty and early Republic of China mainly includes the following aspects:

First, the changes in personnel of the education administration agencies and their negligence have hindered the progress of elementary education in Dongtai County, which is under development.

According to "Jiangsu Province Inspection Evaluation Case" in the second year of the Republic of China (1913), it stated that: Administrative agencies are continuously changed. The staff of the third section, in addition to the county inspections appointed in the early summer of this year, is still able to inspect the competent staff; the section chiefs have changed hands three years. The reorganization was engraved, and the third section was temporarily handled by Bao. However, when things are perfunctory, it is difficult to disappoint everyone. Since then, there is no enthusiastic and educated person with profound education to preside over the plan, supervise the promotion, and fear that the whole school will not be developed. Although many city and township public schools and academic committees have been established, according to actual conditions, there are no achievements at all.[46] In the early years of the Republic of China, education administrators pushed each other's urgency and bureaucracy, administrative system personnel changed frequently, and various changes in policies have affected the emerging development of Dongtai elementary education.

Second, the impact of the private education system objectively caused some resistance to the development of the emerging elementary education in Dongtai.

After the establishment of Dongtai County, it is one of the eight counties of Yangzhou Prefecture, and its geographical location is far away from the sea slugs.

Therefore, it has never been affected by the soldiers. At the same time, the prosperity of Huainan Zhongshichang's salt industry has brought about great economic development and gave birth to a prosperous cultural movement. According to the statistics of the list of Dongtai County Chronicle, there are 17 Jinshi, 46 Juren, 62 Linsheng, 134 Gongsheng, 89 Jiansheng, , 22 Zengsheng Fusheng, 6 Wujinshi, and 26 Wujuren.[47] Until the 1940s, there were still a lot of talents in the county. The average age is around sixty or seventy. Here is an example:

According to Mr. Lian Miao recalled: "In the 32nd year of the Republic of China (1943), I went to Xiafu, Caiyi Street, to attend the ceremony of the funeral of Guangxu Hanlin Xia Yin's official. My grandfather, Jiayi Zhou[48] (name You Liang), served as the main sacrifice, and my aunt and grandfather were the father-in-law, the uncle, the uncle Dongping, the uncle Kunzhong, and the father-in-law, Mrs. Zhou Rulan. I brought him there. It's very lively and magnificent. Remember when Xuan Lao was a talented man who lived in Jinjiadun."

After the establishment of the Republic of China, some old gentlemen who participated in the imperial examinations mostly established apprenticeship at home. With their local prestige, they attracted a large number of middle-class businessmen and families, sending their children to these old gentlemen. The reason is nothing more than a wait-and-see attitude towards new schools and admiration for famous teachers.

The halls opened by these highly respected old gentlemen are not targeted at school-age children, but students who have been studying in the private hall for several years. This undoubtedly gave rise to the rise of private monks in ordinary Mongolian museums, and the two can be described as interacting. Under the influence of this factor, both the Mongolian Museum and the Economic Museum appear to be flourishing in Dongtai City where businessmen gather. It can be seen that during the Republic of China, the coverage of private education in Dongtai County was extensive.

Teaching students according to their aptitude is a consistent teaching method in traditional Chinese education. Under private Chinese education, it is unnecessary to say a lot. At the same time, in the reform of the elementary school education system in the late Qing Dynasty, it was also emphasized: that is to say, "the talented and intelligent" Each had its own requirements, and treats "those who are too blunt to remember," and "those who have poor memory but still understand it well."[49] After the 1911 Revolution, with the influx of democratic thoughts, the educational concept of teaching students according to their aptitude has infused more aspects of focusing on pragmatism and individualized education on the basis of previous ones.

In the early years of the Republic of China, there was another noteworthy phenomenon in the field of education in Dongtai. Many of the principals and teachers who taught in new schools in the late Qing Dynasty and the early Republican period were either due to personnel changes, family reasons, or personal mentality changes. Leave from the school teacher position, return to open a home to run a school, or invited by wealthy families to serve as a tutor. As described in the "Dual Structure of Private Schools and Education" in "The History of Chinese Private Schools"[50]: The dual structure of private schools and public schools was actually a reflection of the old and new

Chinese society and education." The two are complementary. It is still mutually restrictive. At present, the author believes that it is not yet possible to define a specific definition. At least, the private system has objectively created a certain resistance to the development of the emerging Dongtai elementary education, but it is undeniable that this coexisting dual structure it undoubtedly meets the individual needs of socially educated groups.

Third, the shortage of teachers is not directly proportional to the growing number of students.

Under the new education system in the late Qing Dynasty and the early Republic of China, a large number of schools emerged. The first thing to consider is the teaching staff. The source of teachers becomes the elementary issue. Looking at the birth comparison chart of principals and teachers in elementary schools in Dongtai County, cities and towns in the early years of the Republic of China, at this time, there were 193 principals and teachers in elementary schools in the county, including 65 graduates from normal schools, 10 from middle schools, 4 from high schools, and other schools. 43 people, 71 were not enrolled. At that time, teachers who graduated from new schools such as normal schools, middle schools, and high schools and engaged in teaching work accounted for 63.2% of the county's elementary school teachers. The teachers in Dongtai County elementary schools mainly came from new schools, and other sources of teacher resources were different. Some are transformed by rural private teachers, and some are senior school students, even non-illiterate groups who have only read a few days and learned some words.

Teachers who graduated from the Normal School have a new teaching mode and teaching methods. They use the set of educational models learned in the school to carry out teaching activities, and then cultivate new teachers for local education, such as graduated from Dongtai County. In the second year of the Republic of China (1913), Zhang Xiangzhang of the Teachers College was the principal of Dongtai No. 6 Elementary School. Teachers who have not received a new education are mostly old-style literati. Their teaching philosophy and teaching methods are more different than those cultivated by the new school. In addition, the new cultural movement under the cover of democratic and scientific thoughts "promotes new morality." , Against the impact of old morality "promoting new literature, opposing old literature", so the teaching content in the new textbooks cannot be perfectly controlled. Classes are still in the old-fashioned mode of private education. Some old gentlemen even don't know what chalk is, or they are not used to the writing habits of chalk. Instead, they are ground up and mixed with water.

Take a June Chinese lesson in Fu'an First Elementary School in the third education inspection of Dongtai County in the third year (1914) of the Republic of China as an example:

This lesson teaches reading. The evaluation of the professor was: "Failing to read in turn according to the level, the reading method is also inconsistent. Freedom of sound is very similar to private education. There is no change in teaching and teaching."*51*

It is worth noting that teachers of normal education account for only one third of the teachers in the county, which shows the extreme lack of teachers in the new education, and also proves the urgency of normal education. "To be prosperous in elementary schools, teachers must be sought. This must also be the case. In addition, the promotion of teachers, strict provincial regulations, is the establishment of the elementary school teacher's training center cannot be a day or postponed."[52] Since then, Dongtai County The quota of the teachers to be set up is four in the urban area (two in Dongtai and two in Heduo). At the city level, except for Fu'andong and Shenjiabang, each of which has three new ones, and the rest there are two cities in each city; except for Tangganghe Dongxiang and Bengfenghe Township, which have added one to the original one, the remaining one. However, due to the lack of funds and the importance of managers, the weak teachers and the growing number of students in Dongtai during this period were not directly proportional.

Concluding Remarks

Although the middle school education and normal education in Dongtai area emerged as the times require in the 31st year of Guangxu of Qing Dynasty (1905), the development process was very tortuous. The "Dongtai County Middle School and Additional High School" set up by Xuantong in third year (1912) and Guangxu thirty-one years (1905) was "Dongtai County Middle School and Normal School". After entering the Republic of China, the Department of Civil Affairs of Dongtai County took over the "two classes" of school affairs and changed the school to a school. Later, Dongtai County and the school supervised Yuantai He absconded with funds. The short-term Dongtai Normal Education came to an end with middle school education. Afterwards, Dongtai County's first supervisor, Chengye Yuan,[53] once co-founded Dongtai Normal School. In the eighth year of the Republic of China (1919), Dongtai Normal University was founded by Wanqing Zhang No. 1 champion and industrialist Qian Zhang[54] as a "Muli Normal Teacher", and Dongtai Normal Education was restored. Zhang Qian was originally from Haimen at Nantong. Because his mother was from Dongtai, so Dongtai was his mother's hometown, i.e. Muli. In return for his mother's filial piety, he resumed normal education in Dongtai in the eighth year of the Republic of China (1919). In his "Welcome to Dongtai," Zhang said: "Dongtai used to have a normal school, but it was discontinued a few years later. I was afraid that the supply of teachers would not be enough to meet demand. Therefore, I set up a Muli Normal School for the locality. The promotion of elementary schools the other day will give ordinary children the opportunity to receive education, and it will only depend on your mutual help."[55]

It was not until 1924 that the Dongtai County Public Office re-established the Dongtai County Junior Middle School, marking the restoration of Dongtai Middle School education. Therefore, the rise and development of elementary education in Dongtai, although it is part of the macro, can reflect the whole education in the early years of the Republic of China. At the same time, squire celebrities, irrespective of returns, vigorously develop education, benefit mulberry, and invest in the future. In the

fourteenth year of the Republic of China (1925), Shudong Ge[56] founded the first Female Elementary School of Dongtai County[57] in Fuzhuang Lane, Taicheng, and served as its principal. Two years later, Ge went to the director of education in Dongtai County, and transferred to Rulan Zhou[58], who graduated from Jiangsu Provincial First Women's Normal School, to take over the post of female elementary school principal. Mr. Rulan Zhou is a Chinese teacher and has his own set of education methods. As the principal, she practiced and pushed forward, and at the same time, she focused on cultivating girls' practical ability and pioneering the trend.

In the fifteenth year of the Republic of China (1926), Gan Qian[59] and Guojiang Zhou, Yaofu Ren, Ziwei Miao, Bofan Zhou, Jiezi Zhou, Zhiqing Niu and other educational circles planned to set up Anfeng Junior Middle School in Anfeng Gutang Lane. Gan Qian is from Anfeng. He participated in the imperial examination in his early years, graduated from the Liangjiang School of Law and Politics, and later entered the Beijing Normal School of Law and Politics. He served as President of the Jiangxi High Court. After resigning and returning to office, he served as the principal of Anfeng Higher Elementary School, and successively founded Anfeng Private Dexin Women's National School. After the outbreak of the Anti-Japanese War, Guangxi Zhou[60], then acting principal of Shanghai Private Guangshi Middle School, returned to Taicheng to set up Shanghai Private Guangshi Middle School Dongtai Branch, which was set up Grades 6-10. Later the high school was merged into the Jiangsu Provisional No. 1 Middle School. After several relocations, the school was closed in 1940. It was rebuilt in 1947 after the victory of the War of Resistance against Japan, but it was suspended for only one year.

In the early years of the Republic of China, although there were certain limitations in elementary education in Dongtai, a large number of talents were cultivated. At the same time, its development has greatly promoted the normal education and elementary and secondary education.

Looking back at the development of Dongtai education at the end of the Qing Dynasty and the beginning of the Republic of China, it actually reflects the history of the development and change of Chinese education in the first half of the twentieth century. The literary and honest Dongtai City has nurtured Dongtai people with simple folk customs, and generations of education predecessors have actively participated in education. It has been passed down and worked harder to promote the ancient and honest Dongtai education to continue to emit more brilliant youth.

Notes

1. *Edited by the Ming and Qing Archives Department of the Palace Museum, and preparing constitutional archives (Letter 2) at the end of the Qing Dynasty. "The Constitutional Editors Review the Constitution of Urban and Rural Local Autono-*

my and Urgently Propose the Constitution of the Election", Beijing: Zhonghua Book Company, 1979 edition, p. 725.

2. *Edited by Qiu, Jiabiao, Education Status of Dongtai County, Shanghai: Commercial Press 1914 Edition, p. 1.*

3. *Cai, Yingchen (1859-1913), a character Shao Lan, a tribute student from the Qing dynasty, taught Tongzhou Confucianism. Later, he donated money to run the school, and set up tea tea Qixiu Wenshe and Qixiu Junior High School.*

4. *Edited by Qiu, Jiabiao, Education Status of Dongtai County, Shanghai: Commercial Press 1914 Edition, p. 1.*

5. *Ji, Cheng (1867-1928), the word Fengchi, Guangxu Gongsheng, was awarded the candidate training of Wenlin Lang. He had been a teacher of Jiangyin Nanjing College. He had taught in Luzhou Middle School, Dongtai County Middle School and Normal School.*

6. *Chen, Qishou (1863-1929), a character named Xingnan, has taught at Xixi Academy in Dongtai, Shangjiang Public School, Dongtai County Middle School, and Luzhoufu Middle School.*

7. *Chen, Ruyu (1844-1911), the character Bai Shi, a painter. He once taught at the Sanxian College of Dongtai City, Tangyin College, and the Middle School of Dongtai County.*

8. *Editor-in-chief of Chen Yuanhui, edited by Xingui Gui, edited by Tang Liangyan, "Educational System Evolution", a compilation of materials on the history of modern Chinese education, Shanghai: Shanghai Education Press, 2007, p. 7.*

9. *Compiled by the Local History Compilation Committee of Jiangsu Province, Jiangsu Provincial Records • Educational Records (Part 1), Nanjing: Jiangsu Ancient Books Publishing House, 2000 edition, p. 151.*

10. *Compiled by the Dongtai County Chronicles Committee, Dongtai County Chronicles (1817-1911) Supplement (Vol. 1), 1983 edition, p. 24.*

11. *Yang Gongfu (1858—1933), whose name was Yin Yin, used words. Guangxu was a tributary, and was awarded to Hubei Candidate County. After the restoration of Dongtai in Xinhai, he was the first civil affairs director of the Dongtai County Civil Affairs Department.*

12. *Ding Litang (1861-1918), Zi Hesheng, was the chairman of Dongtai Business Branch, and served as commander and chief financial officer of the military and political branch after the Revolution of 1911.*

13. *Cui Yulin (1882-1954), Zi Zhongzhi, graduated from Jiangsu Liangjiang Superior Teachers College, and once served as the principal of Dongtai County First High School, the director of Dongtai County Class A Normal School, and the director of Dongtai Library. After that, he was a librarian of Jiangsu History and Culture Mu-*

seum.

14. *Edited by Qiu Jiazheng, Education Status of Dongtai County, Shanghai: Commercial Press 1914 Edition, p. 1.*

15. *The same as the #14.*

16. *Edited by Chen Xueyi, Selected Works of Modern Education in China, Beijing: People's Education Press, 1983, p. 323.*

17. *Edited by Qiu Jiabiao, Education Status of Dongtai County, Shanghai: Commercial Press 1914 Edition, p. 1.*

18. *According to a telegram from the Suncheon Times on February 21, 1914, the governors of the provinces were consulted on the local autonomy system.*

19. *According to the Statistical Office of the Governor's Office of Jiangsu Province in 1924, the "Provisional List of Governors of Sixty Counties in Jiangsu Province", "Political Yearbook of Jiangsu Province", page 41*

20. *Edited by Qiu Jiazheng, Education Status of Dongtai County, Shanghai: Commercial Press 1914 Edition, p. 1.*

21. *The same as the #20.*

22. *The same as the #20..*

23. *Compiled by the Dongtai County Chronicles Committee, Dongtai County Chronicles (from 1817 to 1911) Supplement (Vol. 1), 1983 edition, p.*

24. *Compiled by the Dongtai County Chronicles Committee, Dongtai County Chronicles (from 1817 to 1911) Supplement (Vol. 1), 1983 edition, p.*

25. *Edited by Qiu Jiayu, Educational Status of Dongtai County, Shanghai: Commercial Press 1914 Edition, p. 7.*

26. *Edited by Chen Xuexun, Cai Yuanpei's Opinions on Educational Guidelines, Selected Works of Modern Education in China, Beijing: People's Education Press, 1983, p. 323.*

27. *Edited by Qiu Jiabiao, Education Status of Dongtai County, Shanghai: Commercial Press 1914 Edition, p. 13.*

28. *Edited by Qiu Jiabiao, Educational Status of Dongtai County, Shanghai: Commercial Press 1914 Edition, p. 40.*

29. *Compiled by the Local History Compilation Committee of Jiangsu Province, Jiangsu Provincial Records • Educational Records (1), Nanjing: Jiangsu Ancient Books Publishing House, 2000 edition, p. 203.*

30. *Edited by Shu Xincheng, Modern History of Education in China (Part 1), Beijing: People's Education Press, 1961, p. 226.*

31. *He Yuantai, name Jiping, a native of Shaoxing, Zhejiang, also serves as the supervisor of Dongtai County Middle School and the attached elementary school. In the second year of Xuantong (1910), the former head of the two churches, Han Lin Xia Yin, went to serve as the governor of Jiangxi. The two churches were managed by He. After the restoration of Dongtai County, He Yuantai fled with the money. According to Yang Yiyin's "The Civil Affairs of Dongtai County, Jiangsu Province" (1912 edition of the Commercial Press), he later recovered the bank silver carried by He's bank, accounting for 3,336 yuan (approximately RMB 4,488 yuan) and over-paid busy silver More than 30,000 yuan.*

32. *Edited by Qiu Jiabiao, Education Status of Dongtai County, Shanghai: Commercial Press 1914 Edition, p. 5.*

33. *Sourne et al., Xue Zhengquan Volume 47 Beijing: Zhonghua Book Company 2015 Edition.*

34. *Wang Huai, name Xing Yuan, was the treasurer of Dongtai County Office in the early years of the Republic of China, and later served as the academic director of Heduo City, Dongtai County.*

35. *Lu Rong, name Yin Nan. Guangxu was born in nine years. In the three years of the Republic of China (1914), he served as chairman of the Education Committee of Dongtai County. In the tenth year of the Republic of China (1921), Dongtai established the Bureau of Rehabilitation and presided over the compilation of "Dongtai County Records."*

36. *Edited by Jiangsu Dongtai Middle School, Anthology of Centennial Anniversary of Jiangsu Dongtai Middle School, 2005 edition, p.274.*

37. *Editor-in-Chief of Chen Xuezheng, Reference Materials of Modern Chinese History of Education Teaching (Volume One), Beijing: People's Education Press, 1986, pp. 758-759.*

38. *Zhou Guojiang (? -1930), Zibaichuan, graduated from Liangjiang Teachers College, former director of persuasion, principal of private Shanyu Junior High School, local judge of two provinces of Jiangxi and Anhui, and later participated in the establishment of Dongtai Anfeng Middle School.*

39. *Miao Ziwei (1891-1943), named Xi Ping, graduated from the Nanjing University of Law and Political Science with a word line. In the early years of the Republic of China, he served in the government of Leping County, Jiangxi, and was re-employed in the Commercial Press. He was the vice principal of Dongtai Anfeng High Elementary School.*

40. *Ren Yaofu, known as Houyi, used to be a teacher of Chinese culture. He was the president of the East Taiwan Chamber of Commerce in 1920 (1920) and participated in the establishment of Dongtai Anfeng Middle School.*

41. *Edited by Qiu Jiabiao, Educational Status of Dongtai County, Shanghai: Commercial Press 1914 Edition, p. 1, p. 17.*

42. *Edited by Qiu Jiabiao, Education Status of Dongtai County, Shanghai: Commercial Press 1914 Edition, p. 3.*

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Internet-based Carrying-out Strategy of Personalized Supplementary Education: A Case Study of School-based Practice in Middle School A in Jiangsu, China

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Abstract: As an integral part of classroom teaching, after-school tutoring has always been valued by teachers and parents. Although outside school tutoring classes have largely filled the vacancy of after-school learning, their effectiveness cannot be guaranteed and the cost is high. Therefore, after-school supplementary learning based on the Internet has become a new choice for parents and teachers. How to use the network system to achieve the integration of inside and outside the school, inside and outside the classroom, how to use the network to assist students to meet the needs of students' differentiated and personalized learning is the key content that needs to be resolved in the construction of "Internet+" personalized after-school assistance. This article will take the school-based practice of a middle school in Jiangsu Province, China as an example, and explore the implementation strategy of personalized supplementary learning with the Internet as a carrier.

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EXTRACURRICULAR supplementary learning is commonly referred to as "shadow education" by researchers because its curriculum is similar to that of public school. In recent years, shadow education has developed rapidly worldwide. Developed countries and developing countries can see various forms of shadow education everywhere (Bray, 1999). Accordingly, in India, France, Malta, and Romania, more than one-third of students often receive extracurricular educational (Bailey, 2007). In China, shadow education has become a common phenomenon. No matter where they are, in cities or towns, most families of elementary and middle school students will choose to use extracurricular time to participate in coaching training to improve their performance. The family's attention to extracurricular tutoring has gradually increased the proportion of family education proportion, and students' academic competitions outside the classroom have become increasingly fierce. In contrast, this extracurricular tutoring system is not perfect; there are problems such as low entry thresholds, difficult to guarantee teaching quality, too many part-time tutors, and overburdened parental expenses, etc. With the development of the internet, the use of the internet for out-of-school supplementary education has become a new choice for school teachers and parents. Middle School A in Jiangsu Province, China uses the Internet to build a school-based supplementary learning platform, which allows students to obtain timely, free, and targeted after-school supplementary studies while acquiring much richer learning resources, making both academic performance and comprehensive quality get promoted. We herein will use the school-based practice of the Middle School A as an example to discuss its implementation strategy of personalized supplementary learning after class.

Background

As a supplement to regular classroom teaching, after-school tutoring can make up for the lack of students' knowledge in the classroom caused by the limited class-teaching time. It is of great significance for students to eliminate differences in classroom learning and improve performance. Therefore, extracurricular supplementary learning is considered to be "a powerful way to achieve a balanced distribution of educational resources through the sharing of teachers and physical facilities, etc., which can effectively solve the problem of uneven distribution of educational resources" (Fan, 2003; Wu, 2013). It is critical to achieve educational equity and promote educational development (Chen, 2019).

The Survey Report on the Status Quo of Teachers in China's Tutoring Education Industry and Tutoring Institutions issued by the China Education Society shows

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that the market size of tutoring agencies in China's primary and secondary schools exceeded 800 billion in 2016, the number of students participating in extra-curricular tutoring exceeded 137 million, and the number of teachers in tutoring institutions reached 700- 8.5 million (Xinhua News Agency, 2016).

In terms of tuition fees, the cost of extra tuition has become an important part of family education expenditure. Based on the data of four follow-up surveys of the Chinese Family, 2010, 2012, 2014, and 2016 conducted by the Chinese Social Science Survey Center of Peking University, the total expenditure of extracurricular tutoring for compulsory education students in China was 48.099 billion CNY, 79.221 billion CNY, 108.377 billion CNY, and 51.697 billion CNY, respectively, and that account for about 0.12%, 0.15%, 0.17% and 0.17%, and 0.07% of the GDP of the year, respectively. So, it is concluded that "China's compulsory education students participate in a large number of extra-curricular tutoring and pay higher tuition fees for this purpose." (Xue & Fang, 2019).

Meanwhile, due to the complexity of the social tutoring market, scholars have questioned the effectiveness of tutoring. They believe that extracurricular tutoring does not have the qualified teachers in some tutoring institutions. The teaching content and design are not related to the students' physical and mental development level. Therefore, it was concluded that extracurricular tutoring is not effective for improving the overall quality of education (Ma, 2010).

In the context of the nation's advocacy of "burden reduction and efficiency enhancement" education and teaching, how to properly and effectively provide extracurricular tutoring is a question that every teacher needs to think about. The emergence and development of the internet provides the possibility to solve this problem. Taking the network platform as a carrier, teachers establish high-quality online teaching resources and present them to students in a certain way for students to browse, study and discuss. And use the Internet resources to push personalized learning materials for students, so as to effectively solve students' doubts and difficulties in the learning process, mobilize students' enthusiasm for learning, and cultivate good learning methods and habits.

Middle School A uses the existing home-school platform and deeply explores the personalized functions of the platform to provide after-school online supplementary courses. Use the Internet to achieve after-school communication and interaction between teachers and students, accurately push personalized learning resources according to the learning situation of students, customize personalized learning plans, and carry out personalized supplementary learning after class. This meets the needs of students' differentiated and personalized learning, and promotes the overall improvement of students' academic level and comprehensive literacy.

Constructive Goals and Contents

Constructive Goals

The school meets the needs of students 'individualized learning and develops students' autonomous learning capabilities as the goal, and develops an online auxiliary learning platform after class. Use excellent teachers to set up online after-school supplementary courses and carry out personalized after-school supplementary studies. The purpose is to provide students with free after-school online learning tutoring through the "Internet +" after-school personalized supplementary study under the guidance of the "education suitable for each child" concept. By allowing students with different learning needs to enjoy more suitable resources and guidance, to meet the needs of students' differentiated and personalized learning, focus on the evaluation of students' quality, and promote the overall improvement of students' academic level and comprehensive literacy. And strive to achieve "fair and quality compulsory education" for every child.

Construction Contents

Use the internet for personalized supplementary learning to meet the needs of students' differentiated and personalized learning after class, and to achieve free, synchronous and accurate learning guidance, learning remedy and literacy improvement.

Construction of an After-School Supplementary Learning Platform Based on Student Learning Levels

The construction of the auxiliary education platform is the technical support for the personalized auxiliary education after class. It requires more than just a presentation as a tool, but can integrate "information technology with the curriculum ... emphasizing the use of information technology to create A new type of teaching environment that can support the teaching methods and learning methods required for the creation of realistic situations, inspiring thinking, information acquisition, resource sharing, multiple interactions, autonomous inquiry, collaborative learning, etc." (He, 2005).

Make Up for Student Learning Differentiation and Meet Individual Learning Needs

Personalized supplementary education needs to meet the goal of students' individualized learning differences, and to resolve the contradiction between the difference in the degree of learning within the school's time limit and the level of learning required by the curriculum. The traditional after-school supplementary study does not take into account the uneven learning levels of students, and uniformly arranges exercises, which makes "the students who have mastered iterate repeatedly, do more labor, and the improvement is not that obvious."(Wan, 2016). Personalized supplementary education requires the support of personalized services, which requires prior knowledge of the student's learning situation so as to provide hierarchical counseling.

Resource Support for Students' After-School Supplementary Learning under the Standard School Behavior

Curriculum resources are the core competitiveness of online teaching. "Online teaching can neither be" full-filled "like traditional education, nor can digital resources be put on the server to allow students to learn autonomously." (Wen et al, 2017). After-school supplementary education should be well integrated within and outside the school, integrates the excellent resources of the school, and actively develop personalized supplementary educational resources that meet the needs of students and the school. At the same time, pay attention to the excavation and supplementation of off-campus resources, and guide more organizations and individuals, such as communities, district teaching and research offices, scientific institutes, market institutions, social organizations, and professionals. Encourage diverse subjects to give full play to their respective strengths, so as to solve the problem of resource support after school.

Evaluation Indexes and Evaluation of Students' Comprehensive Literacy Development Based on Personalized Supplementary Education

The comprehensive literacy evaluation of a student is like a "stethoscope". Through the evaluation, students can obtain multiple "diagnostics" such as self-examination, peer evaluation and evaluation of others. "You can break out of the limitations of your personal perspective, know all your strengths and weaknesses in real time, understand the growth and development status of your classmates around you, and stimulate your own awareness of active growth." Personalized supplementary education also needs to incorporate student comprehensive literacy evaluation into supplementary education. "Promote teaching by evaluation, promote learning by evaluation, and promote growth by evaluation." Teachers use evaluation reports to understand students' progress and deficiencies and provide targeted guidance. Students use evaluation reports to understand their development and work together to implement development goals and consolidate the road of student growth (Zhang & Ma, 2015).

Models and Characteristics of Personalized Supplementary Education

Personalized supplementary learning combines static supplementary learning and dynamic supplementary learning, and divides supplementary learning model into three types: supermarket, inquiry and interactive.

Supplementary Education Model

1. *Supermarket*. Supermarket-style supplementary learning is to provide supplementary learning resources such as tutorial micro-lectures, tutorial courseware, analysis of important and difficult points, homework guidance, consolidation exercises, and assignment analysis of three types of supplementary courses in the resource library. To help students learn independently, remedy and improve themselves according to their actual use of resources.
2. *Inquiry*. Inquiry-based supplementary study is based on the problems and actual differences in classroom learning. In the case that autonomous remedy cannot be effectively achieved, students can ask their own questions, doubts, and difficulties through the platform space. Common problems are provided by the auxiliary teacher with common learning resources and learning guidance; personal problems are provided by the auxiliary teacher with personalized and precise learning guidance.
3. *Interactive*. Interactive supplementary learning is mainly suitable for after-school tutoring in the literacy and hobby specialty auxiliary school, including the demonstration of the completion of the phased learning tasks, the analysis and guidance of problems during the task completion process, the guidance of new tasks, and exchanges and discussions among similar students.

Construction Characteristics

Compared with the Traditional Auxiliary Education

Online and offline, convenient and auxiliary learning. The main form of teaching is collective class teaching. The goal is to meet the collective and common learning needs of students, and to pay more attention to solving the problem of "universal" students. The online personalized counseling system focuses more on solving the problem of insufficient supply of personalized demand in collective teaching, and provides students with targeted, multiple forms of supplementary and prosperous teaching supplements.

The advantage of using the network for coaching is that it avoids hidden dangers of traffic safety due to transportation, and also saves a lot of time and costs (Ventura, 2010). Using the Internet, students can consult questions from different places and with tutors in different places and learn to establish new social relationships online (Dong et al, 2014). Because of the openness of the network, students can use the information network platform to share software and hardware resources, and to obtain rich knowledge through teacher guidance. Information resources with huge amounts of information and knowledge are conducive to the development of students' innovative thinking (Liu, 2016).

Teach according to his aptitude and supplement his personality. The Internet-based personalized supplementary study combines data collection, data analysis, and data application, collects data generated during the online learning process of students, and uses big data analysis technology to analyze and clarify student learning. Personalized supplementary learning integrates online and offline student learning data and re-

sources, making full use of these data and resources to help teachers understand the learning needs and characteristics of students, so that teachers can provide targeted after-school tutoring, and students can learn independently (Ventura & Jang, 2010).

Compared to Social Aid

1. *Public welfare*. The school's personalized supplementary education adheres to the concept of "appropriate education for each child", and provides students with free after-school online tutoring through the "Internet +" personalized supplementary education. Compared with social supplementary education, the school's personalized supplementary education makes full use of the school's existing resources and platforms to achieve free supplementary education after school.
2. *School-based*. The construction of the school's personalized supplementary education is based on the existing conditions of the school, starting from the student's academic situation, and taking student development as the starting point, actively developing high-quality courses and brand curriculum teaching resources in the school, and integrating the life experience of teachers and students, Knowledge reserves, cultural refining, etc. are transformed into curriculum resources to achieve school-based internet platforms "for schools, based on schools, and to schools" (Lin, 2018).
3. *Appropriate*. The construction of the school's personalized supplementary education starts from the school's situation and follows the law of student learning and development. The purpose of the school to guide teachers to participate in the construction of personalized supplementary courses is to make the supplementary courses more suitable for the needs of students, closer to the students 'study and life, and to meet the needs of students' personality development to the greatest extent.
4. *Developmental*. The school's personalized supplementary learning platform is student-oriented, starting from the actual situation of the students, taking into account the needs, interests, and values of the students, respecting the differences of the students, and striving to make each child's personality public, ability cultivated, and potential tapped Let each student achieve harmonious development in autonomous learning.

Measures of Personalized Supplementary Education

1. Establishing a Supplementary Learning Platform on the Internet

The personalized supplementary education platform is an online after-school supplementary study room with different levels, different categories, and different needs according to the learning level of students. The overall design consists of several supplementary study rooms in three major sections: disciplinary supplementary, literacy, and

hobby specialty. Students and parents independently determine the auxiliary school to carry out auxiliary studies through the online selection and auxiliary system according to the current learning level of the students and individual learning needs.

On the auxiliary education platform, there are several modules: live broadcast center, resource center, course center, homework center and interactive center. Students can watch the teacher's knowledge summary or homework explanation in the live broadcast center within the specified time. The personalized auxiliary education platform will also push the corresponding exercises according to the student's learning situation. Students can see the pushed personalized assignments in the homework center. After completing the online submission of the exercises, the system will automatically approve them, which can get timely feedback and detailed analysis. Teachers can check the knowledge of all students, and parents can check their children's learning progress and reports on a regular basis. Teachers and students can also communicate online through the interactive center to help answer questions.

2. *Effectively Organize Training of Teacher*

Internet online after-school supplementary studies have put forward new requirements for teachers' capabilities, such as "core responsibilities and abilities such as content coaching, metacognitive coaching, process coaching, advice and consulting, evaluation, technical support and resource production" (Denis & Watland, 2004), so schools need to organize teacher training on a regular basis to ensure the effectiveness of online tutoring for teachers.

Build a Good Education Model

Establishing a good education model is the theoretical basis for individualized supplementary learning. The establishment of an education model requires students as the main body, and incorporates all aspects of teaching, so as to achieve through-learning before, during, and after class, so as to promote students' independent inquiry and independent learning. Organize student previews before class to allow students to enter the classroom with questions and stimulate students' desire for autonomous learning. At the same time, teachers use information technology to understand students' previews and make targeted lessons; use group learning, collaborative learning, and task learning in the classroom. It organizes student exchanges and discussions. Teachers guide students to answer questions and guide students to summarize and condense. This allows students to change from passively receiving knowledge to actively exploring and learning knowledge. Teachers are transformed from classroom leaders to classroom instructors.

Understand and Be Proficient in Using Educational Platforms, Especially Learning to Use the Web for Live Broadcasts

Teachers are users of the personalized auxiliary learning platform. Schools need to train the lead teachers in advance to help teachers better understand the functions in the platform. In order to facilitate the use of the platform to assist students to personalize the learning of students, especially to guide teachers to learn to explain the knowledge points through the live broadcast function in the platform; meanwhile, the use of the strong interactivity of the live broadcast on the web has the advantage of enhancing communication and communication with students to meet the diverse needs of today's student learning styles.

Personalized Supplementary Learning Courses

After-school supplementary learning is an extension and supplement of teachers' teaching, and "teachers are the leading force in the construction of online courses, are the planners for the construction of the curriculum ontology, and are responsible for the effectiveness of the curriculum." (Zhang, 2014) In the middle, teachers need to be guided to develop a personalized curriculum system for supplementary studies. (1) Strengthen the connotation construction of after-school auxiliary school and the top-level design of three types of after-school auxiliary courses; guide teachers to sort out the knowledge points of teaching, condense the content of a week's lessons into 40 minutes, and conduct important knowledge points within a week to help students outline and help them to consolidate what they have learned. (2) According to the learning situation of students, formulate a relatively complete and systematic hierarchical improvement plan, classify supplementary learning topics, and then provide targeted counseling to students to meet the different needs of student learning. (3) Form a semester system and even a school year system to form the design and arrangement of teaching and research group and lesson preparation group after-school supplementary learning.

Improve Teachers' Ability to Communicate Online

Studies have shown that "good communication between teachers and students is an important way to achieve teaching goals and achieve practical results" (Xu, 2018). Affected by the network environment, network culture often requires breaking restrictions and free expression. Students' entertainment and self-expression are highly demanding. The network provides various social and entertainment channels to meet the needs of young students. Using the network for online communication becomes it is an important channel for students' daily communication. In online chat, chat words and emoticons have become the characteristics of modern chat; especially the use of emoticons has greatly enhanced the emotional color of the chat language. Therefore, teachers should learn the skills of communicating with students online, improve their ability to communicate online, and enhance the effectiveness of teaching communication (Watson et al., 2009). At the same time, teachers should pay attention to using inspiring words when conduct-

ing online guidance and communication, so as to promote the motivation of students' autonomous learning (Zhu, 2005).

Understand the Academic Situation and Learning Needs of Students

The auxiliary education platform sets up a space for students to ask questions. After entering the auxiliary room, students can use three methods: text input, voice input and photo upload to ask questions. After the students' doubts are raised, the teacher first sorts and sorts them manually, and screens out the most prominent and eager to solve the problems. Answers online in text, video, voice, or a combination of the three, and then sorts and counts the relevant data to get them analyzed, judged and fed back. Second, the platform will also use related technologies to automatically collect information about students' questions and queries, organize and classify them, and form statistical reports for teachers to assist in preschool analysis, judgment, and feedback.

The big data formed by the after-school supplementary learning platform is used for synchronous assistance, helping to solve students' learning difficulties and learning for help, making the after-school supplementary learning more targeted and effective. Meanwhile, the lesson preparation group improves and optimizes the subject classroom teaching based on the big data analysis report of after-school supplementary study. Students can also use the platform to form big data for autonomous learning.

Carry Out Online After-School Supplementary Studies

Summary and Combing of One-Week Class Knowledge

The summary and combing of subject knowledge can help students consolidate classroom knowledge, remedy deficiencies and omissions, and optimize classroom teaching results. Personalized tutoring takes the student level as a unit, divides the taught class into three performance levels, and pulls students at different levels into different tutoring groups, so that teachers can provide after-school tutoring at different levels. The teacher summarizes and explains the knowledge points within a week, and the general lecture time is one hour.

Student Online Assignment Guidance

Homework is an integral part of teaching work. Teachers can provide necessary guidance to students with homework difficulties through a personalized auxiliary learning platform so that they can successfully complete homework and consolidate their knowledge. In this process, the teacher cooperates with the lecturer and on the premise of understanding the learning progress of the class, selects test questions from the ques-

tion bank, and publishes the class assignment groups at different levels. When selecting assignments, you can filter the test questions by question type classification and intelligent sorting, check the assignments based on the difficulty coefficient and accuracy rate of each question, and finally assign them to the group of the corresponding level by publishing the assignment function. Therefore, teachers can guide students' work at different levels, collect student learning data through the platform, and improve classroom teaching based on the obtained data.

Student Growth Guidance

Students have individual differences, and different students have different attitudes towards the same thing. Therefore, the growth of students requires not only academic guidance, but also psychological and planning guidance. This requires teachers to provide psychological counseling based on the individual differences of different students, to help students understand themselves, to stimulate students' interest in learning, to establish a collective consciousness, to cultivate the ability to recognize and solve problems, and to form a cheerful, gregarious and independent healthy personality. Instruct students to rationally plan their own life development path. Specifically, it includes the establishment of students' life development goals, reflections on the path of self-development, and planning of life development routes (Wang, 2018).

Implementation Overview and Effect

Overview of the Implementation of Online Coaching

The online tutoring plan project entrusts relevant professional companies to build an online service platform to screen key teachers in nine disciplines including Chinese, Mathematics, English, Physics, Chemistry, Biology, History, Geography, Ethics, and the Rule of Law. At the same time, it is necessary to dig out the resources outside the school community, and pay attention to the matching and supplementation of the resources inside and outside the school. Personalized supplementary education is carried out through the school's personalized supplementary education platform every semester (excluding winter and summer vacation) from 19:00-21:00, Mondays to Fridays, Saturdays and Sundays and 8:00-22:00 on statutory holidays.

The families of students participating in supplementary study after class must have a desktop fixed terminal with Internet access conditions, parents with monitoring capabilities, and must not use smart phones. Parents must submit a written application to provide the parent's real-name system information; after the platform performs identification verification, the verification can be entered before it can be entered; students and parents log in to the online auxiliary education platform with their account passwords.

During the tutoring process, students enter the self-selected supplementary room and communicate with the supplementary teacher according to the online supplementary study time and duration arranged by the school. The supplementary study is generally designed in two stages. The first period of time is the time for concentrated questioning and the second period of time is the concentrated (individual) question answering and the concentrated (individual) display communication. The assumption of this setting is that students can only find problems and doubts on the basis of review consolidation and autonomous work, so that the supplementary learning is more targeted and effective.

In actual operation, more than 100 teachers from schools and communities participated in online tutoring, and a total of nearly 2,000 students answered individualized learning problems in different subjects. This includes combing and explaining the key points and difficult issues of the classroom knowledge, as well as the confusion of students in autonomous learning. In the teacher-student interaction, students can also ask questions about learning interests other than textbooks, which meets the needs of students' personalized learning outside the classroom.

Implementation Effect

Transformed Student Learning Styles, Enabling Students to Learn Autonomously

Some scholars have studied that the use of computers to assist students in learning can strengthen their awareness of learning and the self-awareness of the way they did (Craig & Lain, 2003). Personalized supplementary education focuses on the cultivation of students 'autonomous learning ability, and uses layered counseling and autonomous learning to improve students' sense of effectiveness. Encourage students to study hard, continue to use high-level learning strategies and choose challenging learning tasks within their abilities to make students interested in learning content and experience happiness.

Reduce Family Education Burden and Promote Education Equity

Mark Bray researched the time and cost of students participating in for-profit after-school tutoring activities in Hong Kong, and pointed out that "we must monitor the impact of after-school tutoring on the physical and mental health of students and the impact on students' family life. It is also necessary to face up to that tutoring activities may make the equality of educational opportunities empty talk" (Bray, 2013). Therefore, the free supplementary learning services provided by "Open Counseling" have met the students' tuition and learning needs to a certain extent, increasing the channels for off-campus learning, and at the same time reducing the families of students, especially those with relatively low economic income and difficulty in affording market counseling Cost pressures household financial burden (Chen et al., 2019).

Attach Importance to Student Quality Evaluation and Promote Students' All-Round Development

Education as an activity for cultivating people is to make each person's personality fully and freely and healthily develop, so that everyone has a high degree of autonomy, independence and creativity. Personalized supplementary learning revolves around core literacy design-related learning tasks and goals, inspiring students to think about how to achieve it in a unique and personalized way. In addition, the personalized supplementary study focuses on the evaluation of student literacy. Through evaluation, students have a clearer understanding of themselves, and design personalized learning programs and paths that match the growth of students and conform to their physical and mental development laws, and seek individual knowledge. The needs and development are unified to promote the all-round development of students.

Conclusions

The "China Education Modernization 2035" document states that the integration of education and information technology is an effective way to achieve the organic combination of large-scale education and personalized training. In the face of collective teaching, education scale coverage and individualized needs have become contradictory, and personalized education via the Internet provides a way for students' personalized learning and development needs. We take the school-based practice of Middle School A in Jiangsu Province, China as an example to explain the process and method of the construction and practice of Internet-based personalized supplementary learning, with a view to providing relevant ideas for how schools can use the Internet for personalized supplementary learning. It is true that the school's existing education support system is still insufficient. In the follow-up development, after-school tutoring can improve students' sense of happiness and experience. In society, take the initiative to interact with others, transform what they have learned in the classroom into practical knowledge, actively explore and experience the external world, adapt to social life with a peaceful mindset, and increase children 's happiness experience Opportunities to ensure children's mental health "(Chen & Lu, 2009), so as to promote the development and evolution of richer educational supplementary education and educational services that meet diverse and diverse needs.∎

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Strategies for Continuing Education of Elementary and Middle School Teachers Relying on Information Technology

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Abstract: In the context of "Internet+", accelerating the in-depth integration of teachers' continuing education and information technology, improving the comprehensive quality and abilities of elementary and middle school teachers, and promoting the development of elementary and middle school teachers have become new tasks for continuing education for teachers. Based on the difficulties and challenges of continuing education for teachers in the context of the internet, clarify the new requirements for teachers' ability in the context of the internet, and explore how to integrate Internet technology with continuing education for teachers. Use Internet technology to improve the quality and effectiveness of continuing education for teachers, with a view to promote the wisdom generation of teachers' continuing education.

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SINCE the 1960s, teacher training and development have gradually received attention from countries around the world. The United States, the United Kingdom, France, Japan and other countries have successively established teacher promotion and training centers, learning and teaching research centers, teacher development centers and other departments to be responsible for teacher training and development, and have stipulated in legislation the duration of teachers' on-the-job training and training systems. . In 1985, China relied on Beijing Normal University and Wuhan University to establish a national teacher training center, and in 2012, it started the construction of a teacher teaching development demonstration center to ensure teacher education and training (Gou, et al., 2019).

With the continuous development of network technology, "Internet+ Education" has been becoming a new opportunity for profound changes in teachers' continuing education. The "Opinions of the CPC Central Committee and the State Council on Deepening the Reform of the Teachers in the New Era in 2018" further clearly stated that training methods should be changed, the organic integration of information technology and teacher training should be promoted, and a combination of online and offline training (State Council of the CPC Central Committee, 2018).

Emerging education supply methods have brought new opportunities and challenges to teachers' continuous education, whether it is ideas, laws, content, or models. How to effectively integrate the "Internet+" technology into teacher training and break the limitations of traditional teacher training is an urgent problem.

Difficulties and Challenges of Continuing Education for Elementary and Middle School Teachers

The Dilemma of the Traditional Teacher Continuing Education Model Highlights

Some scholars believe that the traditional model of continuing education for teachers in China is facing realistic problems such as uneven participation in training opportunities, single training methods, low enthusiasm of teachers, generalization and fragmentation of training courses, and weak radiation links after training (Zhang & Sun, 2019). Zhu pointed out, "Traditional training is often centered on experts, mainly teaching by experts, and is generally concentrated in face-to-face classes. The training scale is small. If the training scale is expanded, the training effect will be affected, and the training cost will be higher. Moreover, the training time is fixed, the training courses and teachers are also arranged by the training organization before the class, and the training interaction is weak" (Zhu, 2019).

Some scholars believe that there is a serious disconnect between theory and practice in traditional teacher continuing education. In the "Internet+" era, it lacks the ability to keep up with the times in terms of training organization and resource integra-

tion, and is facing competition from diversified continuing education models such as well-known universities and large training companies, making traditional teacher continuing education models challenged by multiple factors (Shi & Yuan, 2017).

Realistic Challenges Facing Teachers' Continuing Education in the New Environment

"Internet, instant messaging, mobile terminals, big data, cloud computing, MicroBlog (Weibo; Chinese Twitter), MOOC, and micro-learning have made today's society into a diverse era, and they are changing the current teaching philosophy and learning styles" (Yu, 2014). The use of information technology for teaching is also a kind of teacher professional quality, but because some teachers lack basic knowledge of information technology, interconnected technology has become a factor hindering teacher development in teaching (Wai, 2018).

At the same time, modern information technology has not only changed the traditional education model and learning environment, but also fundamentally changed the ecology of education. The channels and channels for students to obtain information are sufficient and diverse. Teachers' teaching is no longer the only way for students to acquire knowledge. Therefore, some scholars point out that "the authority of teachers in the Internet era is being challenged, the teaching difficulty of teachers is doubled, and the pressure on teachers' professional development is huge" (Ji, 2005).

On the one hand, the great development and prosperity of information technology, and on the other hand, teachers face a lot of practical problems in reality. Teachers' continuing education, as an important part of education, must face a series of adjustments brought by the Internet era, change traditional educational thoughts, and plan new strategic development directions.

New Requirements for teachers' Ability in the "Internet+" Background

The application of "Internet+" in the education field is mainly to reform traditional education models through cloud computing, big data and other platforms, and to optimize and integrate online education resources. This is an epoch-making leap for the development of education. In particular, the application of new technologies in education has made education present a new development form and put forward new requirements for teachers.

Introduce "Internet+" Thinking and Change Education Concepts

The development of education informatization will inevitably bring a great impact on traditional education. As teachers, they must consciously and fully recognize the epochal and necessity of their role change, and strive to become a new type of teacher that meets the requirements of the times (Zeng, 2006).

Improve students" learning effectiveness and promote the development of students in cognitive areas (such as thinking ability, memory ability, imagination ability, observation ability, etc.) and non-cognitive areas (such as interest, personality, social, belief, emotion, morality, etc.) has been becoming the value of teacher education worldwide (Xie, 2017).

In the traditional concept of education, education tends to instill students" knowledge and ignores the thinking process that guides students to pursue knowledge. Classroom education under the new curriculum reform encourages teachers to cultivate students" ability to independently explore knowledge, constructs knowledge and ways of thinking, and gives priority to the development of human life and personality. The new educational values require teachers to pay attention to and respect the individual life of students, take students as the center, and pay attention to the openness and generability of the curriculum. A series of transformation is happening, such as from knowledge transfer to the establishment of moral education talents, from knowledge infusion to student capacity generation, from skills transfer to student thinking training, from cold book education to temperature-based emotional education. Therefore, it emphasizes the personality development, personality cultivation and thinking development of students.

Therefore, some scholars believe that from the perspective of the "Internet+" concept, teacher education should always be guided by the "Internet+" concept. They should understand and master the frontiers of social and disciplinary development, continuously update the curriculum content, and adjust the curriculum system in a timely manner to maintain the curriculum in its timeliness and advancement (Manuela, 2013). At the same time, teachers must learn to use the Internet platform to make personalized and diversified teaching more practical and feasible, so as to create a new teaching ecology under the "Internet+" background.

Changing Teacher Roles Based on Wisdom Education

Smart education is the use of new information technologies such as the Internet of Things, cloud computing, big data, and augmented reality to build a resource-sharing smart teaching ecological environment suitable for adaptive learning, integrate smart education theory, and use data mining and analysis technology to analyze and learn Learners, explore the inherent factors affecting learning, intelligently provide personalized learning support services, guide learners to invest limited psychological resources into deeper learning, and cultivate highly intelligent and innovative talents. In the environment of smart education, teachers need to reposition their roles (Chen, 2015).

Teachers are no longer dominant and authoritative in educational relations, and the democracy of education is stronger than ever. Some professional functions of teachers, such as knowledge teaching and homework correction, can also be gradually replaced by machines and technologies, and the irreplaceability of teacher profession has changed greatly. Therefore, the role of teachers should be "transformed from teaching technicians to facilitators of student development" (Xie, 2017).

Using Information Technology to Transform Teaching Methods

The new curriculum reform clearly puts forward that "we must gradually realize the changes in student learning methods, teacher teaching methods, and teacher-student interaction methods." In traditional classrooms, teachers use chalk, blackboards, or multimedia as media to present content that is constrained by space and time. Classroom interactions also have prominent problems such as imbalanced directions, monotonous forms, and insufficient depth. Deeply integrate information technology with classroom teaching, realize class-centered, content-connected, and internet devices as carriers, seamlessly link learning before, during and after class, and make advanced science and technology serve education and teaching To achieve precise teaching (He, et al., 2019).

Taking a middle school in Chengdu, Sichuan Province, China as an example, the middle school teacher prepares the lesson before class, uploads data with the help of the platform, sets up a question bank based on knowledge points, and sets up exercise books. At the same time, the teacher arranges the preview content for the students through the platform, guides students to become interested in the preview content through situation construction and question stimulation, guides students to "learn first" before class, and completes the preview materials and tests pushed by the teacher. Through data collection and analysis technology, the teacher sees the results of student previews in the platform and adjusts the teaching plan in a targeted manner according to the academic situation. During the lesson, the teacher used internet devices such as tablets or clickers to interact with the students, timely discover the knowledge, key points, and difficult problems that the students did not master, and led the students to explain their knowledge and understanding of related issues, and then discover new ones. In the feedback section after class, the teacher can check the completion status of each student or the entire student's unified homework through the platform or mobile terminal, and timely understand the students" grasp of the knowledge they have learned, and then push personalized homework for students at different levels in order to In order to promptly check for omissions and fill gaps, guide students to form a comprehensive construction and deeper understanding of knowledge.

Internet makes education much more convenient and new requirements are put forward for teachers' training. Teachers are required to use information technology such as education platforms to improve classroom teaching efficiency, enable students to teach in a targeted manner, and achieve personalized development of students.

Strategies for Deep Integration of teachers' Continuing Education and the Internet

In the context of the "Internet+ Education" era, basic education places higher demands on teachers' capabilities. Teachers' continuing education, as an important part of education, also needs to be changed and adjusted. Use network technology to carry out continuing education for teachers, promote the generation, cohesion and sharing of high-quality training resources, and organize teachers to conduct effective online and offline communication. In order to promote the in-depth integration of teacher training and teaching practice, fully respect the learners' personal characteristics and willingness to design training methods and progress, and comprehensively promote the reform and innovation of teacher continuing education.

Promote the Construction of Online Platforms and Build a Mixed-Teacher Continuing Education Teaching Model

The blended teaching mode is formed along with the development of centralized face-to-face teaching and network training, which refers to a combination of online learning and classroom teaching. Some scholars believe that focusing on face-to-face teaching focuses on problem diagnosis, expert guidance, case demonstration, and practical experience to help teachers establish goals, master methods and strategies, clarify development paths, and form improvement plans. However, concentrated face-to-face teaching is difficult to resolve the contradictions between engineering and learning, and it is difficult to reduce the cost of continuing education. The online training mainly uses the online platform to provide the participating teachers with online learning course resources, realize the sharing and interactive exchange of online course learning resources, and ensure the effective promotion of training. Through the organic combination of online learning and classroom face-to-face teaching, there are real-time and non-real-time, synchronous and asynchronous teacher lectures. Discussion learning, collaborative learning, group learning based on the concept of "collaboration", and traditional and autonomous learning around the network can be conducted. Therefore, some experts and scholars have proposed that "the mixed teaching model is an effective way to guarantee the quality of teachers' continuing education" (Liu, et al., 2018).

The construction of the teacher continuing education platform is the premise for the development of a mixed teacher continuing education model, and it is the preliminary basic project of "Internet+" and teacher continuing education (Tang, et al., 2015). To realize the continuing education on the Internet, it needs to meet the characteristics of large-scale training, extensive coverage, personalized training, optimized training funds, and balanced high-quality resources. Therefore, the creation of online continuing education platform requires both advanced technology and the characteristics of elementary and middle school teacher training.

Using Big Data Analysis Technology to Achieve Personalized Teacher Continuing Education

Teachers' continuing education needs to be based on teachers' actual needs. Traditional teacher education is restricted by technology, and demand surveys are often conducted by random sampling, questionnaires, individual interviews, and classroom observations. Because the survey sample is small and the data is small, it is impossible to obtain the true needs of teachers' continuing education in a comprehensive and effective manner, which causes the problem of disconnected training programs and training courses and training content from real needs. Collect the big data of teacher training needs through the platform, use the big data analysis technology to obtain the real needs of teachers, and look for the correlation between the training demand target and the training content data. This will further improve the pertinence and effectiveness of the training content and achieve a seamless connection between training content and training needs (Wu & Li, 2014).

Taking Fujian Province, China as an example, the Fujian Provincial Basic Education Network uses the Fujian Education Institute Training Management Information Archive and the Fujian Provincial Elementary and Middle School teachers' Continuing Education Information Management System Platform. Conduct in-depth training needs surveys of teachers in elementary and middle schools in the province according to the dimensions of region, gender, title, semester, subject, etc., and use big data statistics and analysis techniques to obtain information on teacher training needs, and then maximize the implementation of "on-demand training for you" Design "concept of teacher training in elementary and middle schools (Fan, 2016).

Focus on Resource Integration, and Build a Multi-Win-Win Teacher Continuing Education Ecosystem

As a product of "Internet+ Education", "MOOC" uses the Internet to successfully push high-quality educational resources to the world and realize global sharing. In continuing teacher education, we should also focus on resource integration. Through the application of cloud computing, excellent resources can be reconfigured, integrated, and shared within a very wide range (Li, 2012).

With the free, open, efficient, and convenient characteristics of the Internet, the dissemination of high-quality resources for teacher training is not limited by time and space, so that its role and value can be exerted and extended, so that more teachers can obtain resource services. On the one hand, teachers can use the platform for online communication and exchange, experience and share learning fun and resources with each other in the learner circle, and realize the interaction and sharing of teaching resources between teachers and teachers. On the other hand, the use of cloud platforms

can effectively break through the outstanding problems of imbalanced educational resources caused by traditional factors such as geography, inter-school, time, funding, and teachers. Colleagues from prestigious regional and high-quality universities share high-quality resources on the same training platform to build a win-win ecosystem (Fan, 2016).

Strengthen the Evaluation of Online Learning to Ensure the Quality of Continuing Education for Teachers

Some scholars have suggested that "the teacher's conscious and reflective practice means that the teacher is the subject of learning and constructing knowledge from his own experience" (Marili & Benedito, 2016). Therefore, strengthening evaluation in teachers' continuing education can promote teachers' systematic thinking and reflection on their behaviors and effects as learners, so as to improve the quality of continuing education.

Since distance network continuing education cannot be supervised during the training process like the traditional model, there are some teachers who lack self-regulation due to active learning. As a result, the quality of network distance teacher continuing education cannot be guaranteed. Therefore, it is necessary to strengthen learning evaluation in the process of continuing education on the network, use the network to monitor and diagnose the participation of teachers, and accurately evaluate their learning effects, in order to stimulate and urge participating teachers to complete the tasks of network training and learning.

Take a shared platform for the practice of wisdom of a elementary and middle school principal in Ningbo City, Zhejiang Province, China as an example. This platform has adopted some technical measures and management methods to strengthen the process monitoring of remote training and improve the authenticity of training (Yuan, 2018).

First, set up learning intermediate tasks. Questions pop up on the screen every 15 minutes in the training video, and the questions are the content learned in the first 15 minutes to ensure the continuity and authenticity of the learning.

Second, implement training task management. The website platform sets the corresponding training quantity and quality requirements for the content of the training task module. The platform will automatically record the e-learning progress of each college and the required completion deadline, and present the progress on the platform, so that managers can monitor and supervise and compare and evaluate students with each other in a timely manner. Students who do not complete the required content in accordance with the requirements will not be able to obtain corresponding continuing education credits.

Third, give play to multiple evaluation mechanisms. Through the pre-test and post-test of network training activities, carefully monitor the educational status of their participating teachers, conduct comprehensive testing and evaluation of the results of

teachers' network training, and promote the successful completion of teacher training tasks. At the same time, through peer evaluation, platform automatic evaluation, self-evaluation, and evaluation by the leader of the training group, teachers' autonomy is enhanced, and participating teachers are urged and motivated to carry out online training and learning, so that they continue to obtain positive professional advancement.

Conclusions

Teachers play an important role in the teaching process and "play a vital role in achieving learning goals" (Ekrem, 2016). "Teachers must receive on-the-job training in their careers to keep up with innovation in their field" (Ada & Ustin, 2008). In the Internet era, not only have teachers changed their educational concepts or teaching methods, but their continuing education models also need to be changed and reformed accordingly. Network technology has become the main technical support for current teacher training due to its resource sharing, multimedia and interactivity. The continuing education of elementary and middle school teachers should make full use of the advantages of network technology to improve the continuing education methods of teachers, realize the close cooperation between network training and centralized face-to-face training and on-site practical training, and jointly promote the professional development of basic education teacher training.■

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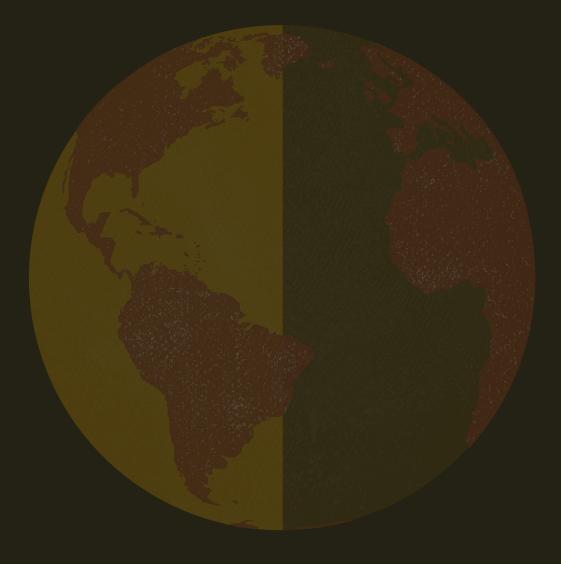*(In writing to advertisers, please mention the journal – it helps.)*

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