

## ***Path of Geography Education and Teaching Specialty under the Background of Internet + Education***

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**Abstract:** Geography covers a lot of geographical knowledge and theories, and it is difficult for textbooks to achieve the adequacy of geography. Teachers can not only teach according to textbooks, otherwise students can only learn knowledge into the trap of geographical knowledge narrow. Such teaching often leads to very little extracurricular reading for students, unable to increase their knowledge reserve. Teachers should learn to sort out micro-lessons, deal with the knowledge contained in micro-lessons carefully, and adopt appropriate strategies to skillfully combine this mode with geography, so as to enrich teaching contents and improve teaching methods. This paper studies the professional development path of geography education and teaching under the background of Internet + education, and expounds the relevant content and principle mechanism of the professional development path of geography education and teaching. The data confirmed that the study on the development path of geography education and teaching under the background of Internet + education has a very efficient performance in the development of geography education and teaching.

### **1. Introduction**

Geography classes often cover a lot of knowledge, teachers need to break away from the shackles of traditional knowledge, innovate their own teaching situation, dare to combine with learning theory, so that students can learn as much knowledge as possible. After the reform of the new curriculum standard, the curriculum will be more complex and the content will be increased a lot, and students will feel more difficult in learning. Teachers improve the teaching model to show the learning value of knowledge application. The research on the development path of geography education and teaching under the background of Internet + education is conducive to the progress of the development of geography education and teaching.

Many scholars at home and abroad have conducted researches on Internet +. In foreign studies, a scholar proposed that it is necessary to develop and verify a universal model of family doctors' core competitiveness in the implementation stage of "Internet + medical" service mode. Methods:

Literature study, behavioral event interview, expert consultation and questionnaire survey were used. The 35 questions in the scale were measured by response rate, highest score, lowest score, and average score for each question [1]. LambertiG proposes the social process of Internet occupancy: living in a digitally developed country benefits less-educated Europeans, using data provided by the EU to measure the theoretical structure of the model, and using a partial least squares structural equation model to test the theoretical predictions. Found that the hypothetical relationship is supported, but found that the impact depends on the country's level of digital development [2]. A scholar proposed to systematically search, collect and analyze the work plan of "Internet + Government Services" (IPGS) issued by provincial government departments in China to understand the development idea of "Internet + Government services" in China. Qualitative content analysis was used to retrieve and analyze 81 IPGS work plans [3].

Micro-lesson teaching is one of the innovative teaching development paths [4-5]. Geography teachers need to pay close attention to teaching methods, carefully review geography knowledge, fully integrate micro-lesson resources, and fully cooperate with teaching methods, so as to perfectly connect the micro-lesson model with geography learning, student preview, content sorting and other links [6-7]. This model improves and innovates the mode and content of geography teaching, which can improve the enthusiasm of students in learning and improve their own academic performance. The research on the development path of geography education and teaching under the background of Internet + education promotes the more professional innovative discovery of geography education and teaching on the path.

## 2. Design and Exploration of the Development Path of Geography Education and Teaching under the Background of Internet + Education

### 2.1 Internet + Education

"Internet + Education" is a new form of education that combines Internet technology and education with the continuous development of science and technology today [8-9].

The innovation direction of "Internet + Education" can be divided into the following aspects, as shown in Figure 1:

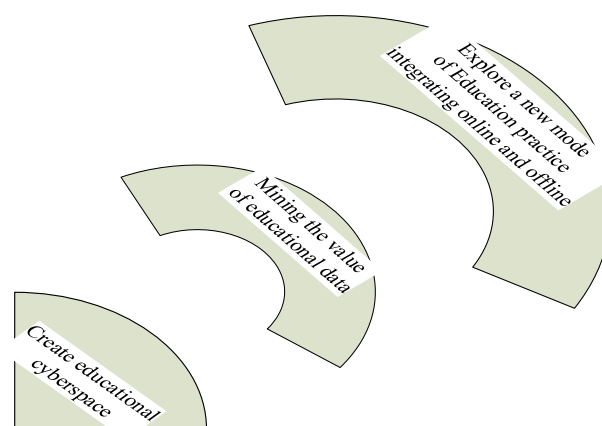


Figure 1: The innovative direction of "Internet+Education"

Innovation direction 1: create educational network space. In the past, the development of cyberspace was relatively free. In the new stage of development, we need to carefully study, plan and build cyberspace in an overall way, because cyberspace is the focus of our education and teaching practice. In cyberspace, we should build a green and safe private network, upgrade the existing campus network, develop the platform service model, develop the public service system

supported by the Internet platform, and pay attention to the learning space of learners in the network environment. So information space foothold in addition to classroom, school, but also pay attention to the Space of the Internet.

Innovation direction 2: Mining the value of educational data [10-11]. Data is the new energy of human production and life, especially precious to education. In the past, education was more about revealing the law of education, observing the practice of education, and recalling the teaching and learning process based on experience to observe, manage and study the practice of education. Online learning is the first time that all human teaching and learning behaviors are stored in the way of data, and it is the first time that we can use the paradigm of big data to understand and support educational experiments. Therefore, we should firmly grasp the new element of data, and explore its significance and solutions for promoting educational reform. We will build education centers, promote the sharing of educational data, promote the application of educational data, and improve the norms and standards of data.

Innovation direction 3: Explore a new mode of education practice integrating online and offline

In educational practice, the integration of online and offline will bring many new opportunities to education, so we should pay attention to new schools, new models of teaching and learning, new models of evaluation, new models of teaching and research, new models of teaching organization, new models of education supply, new models of education management and new models of education governance. These new models can provide us with new ways to explore and solve education problems in eight aspects.

## 2.2 Research on the Development Path of Geography Education and Teaching under the Background of Internet + Education

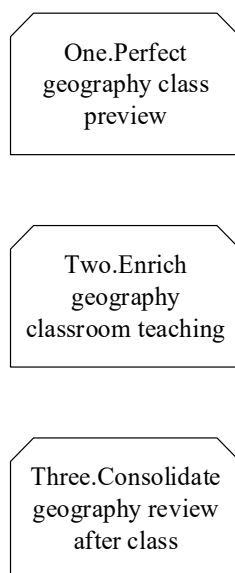


Figure 2: Several aspects of development path analysis

The research on the development path of geography education and teaching specialty under the background of Internet + education is analyzed from the following aspects, as shown in Figure 2.

### 2.2.1 Integrate Resources with Micro-Class and Improve the Preview of Geography Class

Preview before class is a very good aspect. If students want to learn knowledge well, they must preview the course in advance, so that they can accept the new knowledge in the course more effectively, so as to better increase the unfamiliar knowledge and prepare the foundation of new

knowledge [12-13]. After the preparation before class, students can have a basic understanding of the course, understand the basic framework of knowledge, can better accept the new knowledge, new tasks, and finally cooperate with the teacher's teaching, understand the new knowledge. Preview fragmentary knowledge, learning resources before class, is a good knowledge preparation before class.

### 2.2.2. Integrate Resources with Micro-Lessons to Enrich Geography Classroom Teaching

Improve students' concentration in class, so that learning is always in the best learning state [14-15]. Students themselves should try their best to solve all kinds of difficulties encountered in learning, so as to make learning into a good state. At the same time, teachers also need to strengthen their own efforts, need to change their own single, content may be a bit boring learning mode. If a student does not maintain the best learning condition, and this condition persists for a long time, then the student will inevitably reduce learning ability, learning content will become less and less. So students from this moment, they began to like a bicycle up and down, and then over a period of time, may be free fall, the results will soon see the bottom. The key to a good course is to activate the interest of learning, reduce boredom and enrich the diversity of the class.

### 2.2.3. Integrate Resources with Micro-Lessons to Consolidate Geography Review after Class

Consolidating geography knowledge after class is very important for students, because the review of knowledge after class can make the new knowledge accepted in the day more engraved in the heart, the new knowledge will be more firmly hidden in the students. After class, teachers should assign homework to students, so that students can summarize and summarize the knowledge system after class, so that knowledge is easier to master. When students review after class, they sometimes forget a lot of important knowledge. At this time, they need to review after class to let the forgotten knowledge come back, so that the knowledge will be easier to master.

## 3. Research on the Effect of Research on the Development Path of Geography Education and Teaching under the Background of Internet + Education

Based on Dagum, the Gini coefficient decomposition method proposed in this paper describes the spatial difference in the comprehensive level of "Internet +" [16-17]. Dagum Gini coefficient definition:

$$G = \frac{\sum_{j=1}^k \sum_{h=1}^k \sum_{i=1}^{n_j} \sum_{r=1}^{n_h} |y_{ji} - y_{hr}|}{2n^2 \bar{y}} \quad (1)$$

$$\bar{Y}_h \leq \dots \leq \bar{Y}_j \leq \dots \leq \bar{Y}_k \quad (2)$$

Type (1), G is the overall gini coefficient, comprehensive level of y is the "Internet +" average, k is the number of regional division, n is the number of regions,  $y_{ji}$  ( $y_{hr}$ ) is j (h) area of any area of the "Internet +" comprehensive level,  $n_j$  ( $n_h$ ) is the number of j (h) region area, j, h for regional division number, I, r for the number of regions.

In order to alleviate heteroscedasticity, variables in the convergence model set in this paper are expressed in the form of natural logarithms, and the absolute  $\beta$  convergence model is as follows:

$$[\ln(\text{int}_{i,t+T} / \text{int}_{it})] / T = \alpha + \beta \ln \text{int}_{it} + \varepsilon_{it} \quad (3)$$

In Formula (3),  $\text{int}_{i,t+T}$  and  $\text{int}_{it}$  are the comprehensive level of "Internet +" in region I in period T +T and T, respectively. The time span of the investigation period is T, the convergence coefficient is  $\beta$ , and  $\alpha$  represents the constant term.  $\varepsilon_{it}$  is the random disturbance term. If  $\beta < 0$ , absolute  $\beta$  convergence exists. If  $\beta > 0$ , it indicates divergence.

This paper adopts Internet + education technology to study the development path of geography education and teaching specialty [18]. In this paper, Dagum Gini coefficient is referred to, and the absolute convergence model is used to determine the elements of geography education, so as to select the optimized convergence term, and finally promote the development path of geography education and teaching specialty to achieve the optimization.

Significance of using micro-lesson resources in geography teaching.

First, enrich the form of geography teaching

What teachers need to do most is to make geography courses diversified, so that students can more stimulate their own learning desire when learning curriculum knowledge, so as to improve the attractiveness of teaching content, and finally, improve students' knowledge acceptance. Before class, teachers need to prepare courseware in advance, after-class teaching resources, rich class content; after class, teachers need to assign some homework to improve students' knowledge consolidation, so that students can deeply absorb the essence in practice.

Second, to meet the individualized learning needs of students

As a relatively innovative Internet tool, micro-lesson can create learning scenes and pictures for students to meet the personalized learning requirements of learning. In this way, students can receive knowledge in a visual way and have a better understanding of knowledge, so as to achieve the effect of completely digesting after-class knowledge. When students enter the situation, they can recall what they do not understand or do not understand, then they can search for relevant knowledge and search relevant resources to meet their own personalized learning requirements.

Third, cultivate teacher quality. The quality of teachers is a very necessary soft factor, because the quality of teachers is very good, the course will be more attractive, so as to improve the acceptance of students to learn knowledge.

#### 4. Investigation and Research Analysis of the Professional Development Path of Geography Education and Teaching under the Background of Internet + Education

In order to further reveal the spatial differences and sources of the development path of "Internet+" geography education and teaching, this paper adopts Dagum Gini coefficient and its decomposition method to analyze "Internet +". Comprehensive geography education teaching professional development path gap is decomposed, using the calculation results of Matlab2017 software.

This Internet + geography education teaching development path test has three models, namely the Internet + education model of this paper, strategy 2, strategy 3. The three test data are shown in Table 1.

Table 1: The test data being shown in table

Name	Comprehensive level	Internet + Education	Strategy 2	Strategy 3
Efficiency(%)	75.67	95	76	56

As can be seen from Table 1, in the test cases of the development path of geography education and teaching, Internet + education mode achieves 95% efficiency, while strategy 2 and 3 achieve

76% and 56% respectively. Therefore, the Internet + education model is very efficient.

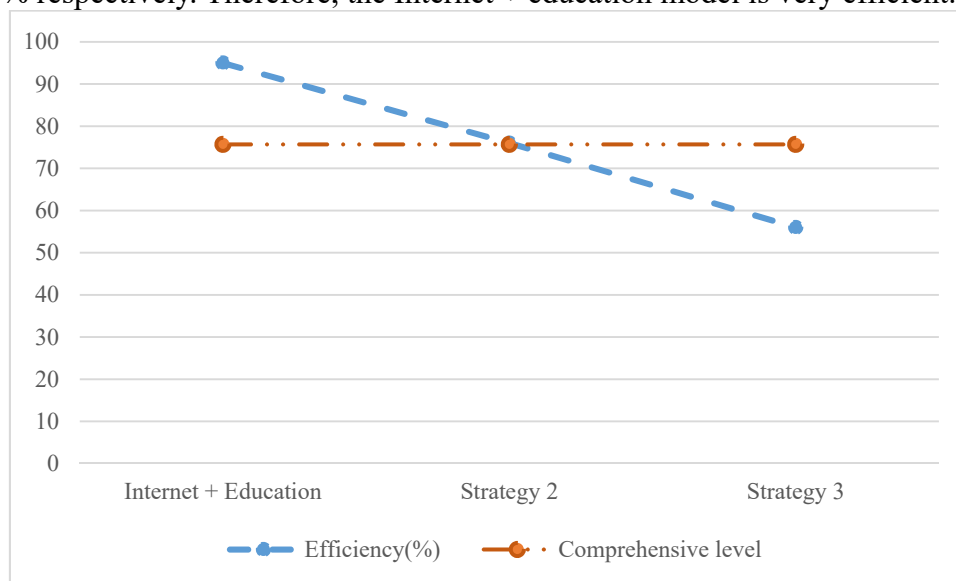


Figure 3: Geography education teaching development path test data

Figure 3 shows the test results of Internet + education mode, strategy 2 and Strategy 3, as shown in the figure. It can be seen that the Internet + education mode is the most efficient, with an efficiency of 95%.

The test shows that the research on the professional development path of geography education and teaching under the background of Internet + education performs efficiently in the research on the professional development path of geography education and teaching.

## 5. Conclusions

Under the background of new curriculum concept, geography teaching is very challenging for teachers and students. Teachers need to enrich their own geographical knowledge system as much as possible, innovate their own teaching methods all the time, create reasonable teaching scenes for teaching, improve students' own learning ability and cultivate students' innovative consciousness. More thinking of knowledge, students adapt to the learning situation to achieve the best learning effect. The research on the professional development path of geography education and teaching under the background of Internet + education is conducive to the new discovery of the law of the professional development path of geography education and teaching.

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