Beneficiaries of educational technology in universities ——A Study on the Equity of Urban and Rural Education in Henan Province

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Abstract. The research in this paper combines educational equity and educational technology, based on the theory of educational equity and the theory of stages of educational equity, with the aim of exploring the use of educational technology in rural and urban schools in Henan Province, both during and after the teaching programme. From the perspective of retrospective research, this paper used the questionnaire survey method to survey five colleges and universities in Henan Province, with a total of 203 students; and the semi-structured interview method to interview nine students, four teachers, and two leaders of the Education Bureau. The results of the study show that there is a disproportionate difference in the allocation of basic education resources between rural and urban schools, an unbalanced distribution of education funds, and different levels of importance attached to educational technology by teachers. In addition, students' information literacy skills and family economic status are factors that affect equity in educational technology between urban and rural areas in Henan Province. In view of the current problems, the state, schools and other subjects should promote urban-rural education equity in the system, guarantee urban-rural education equity in the funding, and cultivate information technology talents in the concept to promote the equitable development of urban-rural education technology.

Keywords: educational technology; urban-rural educational equity; quality of education.

1. Introduction

The report of the 20th Party Congress pointed out that education, science and technology, and talent are strategic supports for promoting a modern socialist country, and that it is necessary to insist that science and technology is the first productive force, talent is the first resource, and innovation is the first driving force, and that it is necessary to deeply promote the development of the country through science and education and deepen the reform of the education cause as an important foundation for national development (State Council, 2022). In order to provide education to the satisfaction of the people, the Chinese government has always placed education in a strategic position of priority development. General Secretary Xi Jinping pointed out that educational fairness is an important foundation of social fairness, the development of educational achievements should be continuously promoted to benefit all people, and solving the problem of urban and rural educational inequality is the foundation for the development and realisation of a strong educational country (Ministry of Education, 2022), which is an important factor restricting the development of China's educational modernisation (Zhao Jiaji, 2018).

The modernisation of education in China requires accelerating the educational change of network informatisation. In this context, the modernisation of education prompts technological changes that are in line with the development of the times in the concept of educational thinking, the way of teaching and learning, and the way of educational development and management (Li Bingbing, 2017). At present, China's goal for talent cultivation has been improved, and the requirements for education modernisation in the teaching and learning process have been increased, which makes the use of educational technology in urban and rural education particularly important. Therefore, under the impetus of national policy, optimising the allocation of educational technology resources in urban and rural areas is a fundamental measure to alleviate the inequality between urban and rural education in China, and an important means of rural revitalisation and development of national economic

construction (Hao Shuizhi, 2020). Combined with the current overall situation of China's educational development, achieving a balanced allocation of educational technology in urban and rural areas is a key link to educational equity and educational modernisation, and is of extraordinary practical significance in promoting rural revitalisation and social prosperity and stability, and realising the great Chinese dream of the great rejuvenation of the Chinese nation at an early date.

2. Formulation of the problem

2.1. Rationale

There are two main views on the definition of educational equity: the "educational equality theory" and the "educational equal opportunity theory". Yuan Zhenguo, a representative of the "equality of education theory", believes that due to the unequal distribution of educational resources between urban and rural areas, students should be provided with opportunities for differentiated development, both comprehensive development and individual development (Yuan Zhenguo, 2004). Torsten Husen, a representative of the "equal opportunity theory of education", suggests that equity in education means that in the process of allocating educational resources, the government should provide students with the same conditions and quality of education, and then give them special care according to the situation (Zhao Jing, 2008). Accordingly, educational equity refers to a value judgement on the reasonableness of the distribution of educational resources, and thus the theory of educational equity is a theory on the right of members of society to enjoy educational resources.

Regarding the theory of the stages of educational equity, a three-stage consensus has basically been formed in the academic circle: the stages of educational equity include the starting point equity, process equity and outcome equity. Equity in the starting point of education means that "everyone enjoys a fair opportunity to receive education", but due to the influence of family background, cultural traditions, innate qualities, the scale and level of education and other conditions, there are unequal opportunities for children to begin to receive education; equity in the process of education refers to the fact that the recipients of education, irrespective of their social backgrounds, family conditions, the region they belong to and the schools they attend, are not the same, Equity in the education process means that, regardless of their social backgrounds, family conditions, regions and schools, educated persons should enjoy education of comparable quality and have access to comparable educational resources; equity in the educational process means that, on the basis of equity in the starting point of education and equity in the process of education, people pursue the highest level of equity.

2.2. Literature review

2.2.1. Current status of foreign research

Western scholars, in their research on the specific issue of educational equity, are more inclined to the question of whether individuals have equal opportunities to receive education. The Swedish educator Hussen proposed that "every individual has the opportunity to start his or her learning career without any discrimination" (Zhao Jing, 2008). That is, the state, society and educational institutions should equally provide every individual with fair access to schooling and the right to quality education, regardless of differences in race, class, etc. Shaeffer (2019) points out that the provision of inclusive education through the national system and inclusive schools achieves quality education, especially for those who are usually excluded. However, along with the gradual development of information technology, researchers from abroad have used educational technology as a vehicle that seeks to reduce differences in time and space, thereby promoting educational equity. In a study from Slovenia, Starcic (2010) introduced SEVERI e-learning in school education, which showed that the implementation of equal education cannot be separated from the carrier of informatisation.Caiyan (2022) constructed a model of e-learning resource allocation in English language education on the basis of equity in education, and he found that such a technological tool can effectively achieve the following rational distribution and wide sharing of resources. In a study addressing the nature of

educational equity in the Nordic countries, Metsämuuronen and Lehikko (2022) argue that the way to reduce educational inequity is to open up educational technology.

2.2.2. Current status of domestic research

Domestic scholars have conducted in-depth discussions on the factors affecting educational equity. Zhang Enjian (2007) argues that the imbalance in economic development between the east and west and the backward traditional thinking have caused a serious imbalance in the gender ratio of children enrolled in schools in the western less-developed regions, and that the imbalance in the allocation of educational resources has further exacerbated the phenomenon of educational inequity in the western less-developed regions. Li Miao (2012) points out that under the urban-rural quadratic structure, the tension of rights between the various levels of government has led to a marked difference in education funding between urban and rural levels, further exacerbating urban-rural education inequity.

In addition, researchers in China have closely linked educational technology to the study of educational equity. Luo Chaojun pointed out in his study that science and technology-enabled education promotes equal access to quality educational resources (Luo Chaojun, 2021), which shows that educational technology plays a decisive role in the process of achieving educational equity. In his doctoral thesis research, Zhang Guolin argues that the uneven level of economic development between regions in China has resulted in the eastern region having significantly higher information technology, and education management than the western region (Zhang, 2013). Du Shaojie advocates that the difference between the economic levels of families also leads to the problem of educational inequity (Du Shaojie, 2012).

Finally, the implementation of educational technology in education and teaching requires strong resource support. Liu Mengyi in his study indicated that the current supply of educational information resources is difficult to meet the equitable development of urban and rural education (Liu Mengyi, 2020). Similarly, as an important participant in promoting the modernisation of the country's education and realising educational equity, teachers' own abilities should constantly follow the progress of the times.

2.2.3. Literature Review

Combined with the combing of the current status of domestic and international research, although the entry points of the above studies are different, more and more scholars are paying more attention to the achievement of educational equity in the globalisation of educational development today. By studying the inequity problems existing in the development of education, the current research of scholars is committed to promoting the reform and benign development of education to achieve the progress of human civilisation and the stability of human society. However, with the rapid development of educational informatisation, the problem of educational inequity has become increasingly serious and challenging, and current research on inequity in education has further strengthened the linkage between educational equity and educational technology.

3. Equity study on the use of educational technology

In this paper, a questionnaire was used to survey five colleges and universities in Henan Province, with a total of 203 students; nine students, four teachers, and two leaders of the Education Bureau were interviewed using semi-structured interviews, and the specific data were analysed as follows:

3.1. Basic information on survey respondents

Table 1 - Basic information on the respondents shows that 48.77 per cent of the respondents were male and 51.23 per cent were female, which ensures that the survey data are balanced in terms of the proportion of males and females. The data on the home address of the respondents shows that the proportion of students from urban areas is higher than the proportion of students from rural areas, specifically, there are 74 students from rural areas, accounting for 36.45 per cent, and 129 students from urban areas, accounting for 63.55 per cent. In addition, according to the occupation of the

respondents' parents, the proportion of parents who are employed in enterprises is the highest, and the proportion of freelancers is the lowest. Finally, according to the education level of the respondents' parents, it can be seen that among the 203 students interviewed, 101 or 49.75 per cent of the fathers had an education level of less than junior high school, and 89 or 43.84 per cent of the mothers had an education level of less than junior high school, which shows that the education level of most of the respondents' parents was at junior high school or below.

Table 1. Basic Information Sheet for Survey Respondents

Basic Information	Options	Frequency (n=23)	Percentage (%)
Gender	Male	99	48.77%
	Female	104	51.23%
Grade Level	Non-graduating grade	166	81.48%
	Graduation grade	37	18.23%
Home address	Rural	74	36.45%
	Urban	129	63.55%
Father's occupation	Farming	23	11.33%
	Governmental agencies and institutions	42	20.68%
	Enterprise workers	96	47.29%
	Freelancer	19	9.35%
	Other	23	11.33%
Mother's occupation	farming	19	9.35%
	Government and institutional personnel	27	13.30%
	Enterprise practitioners	117	57.63%
	Freelancer	15	7.38%
	Other	25	12.31%
Father's education level	Junior high school and below	101	49.75%
	High school or secondary school	64	31.52%
	College and above	38	18.71%
Mother's education level	Junior high school and below	89	43.84%
	High school or secondary school	87	42.86%
	College and above	27	13.30%

In addition, this study utilised random sampling and semi-structured interviews with four teachers, two Education Bureau staff, and nine students in Henan Province, either online or offline (see Table 2 for details - Basic information about the interviewees).

Table 2. Basic information about the interviewees

No.	Sex	Age	Identity	Place of work/study (urban/rural)
01	Male	40	Teacher	City
02	Female	35	Teacher	Countryside
03	Male	47	Teacher	Countryside
04	Female	29	Teacher	City
05	Male	50	Education Bureau	City
06	Male	48	Education Bureau	City
07	Female	22	Student	Countryside
08	Male	21	Student	City
09	Female	23	Student	City
10	Male	22	Student	Countryside
11	Female	20	Student	City
12	Female	21	Student	Countryside
13	Male	22	Student	City
14	Male	21	Student	Countryside
15	Female	22	Student	City

3.2. Use of educational technology in teaching

Domestic and foreign scholars combined with the definition of educational technology and the actual, and finally recognised the American Association for Educational Communications and Technology (Association for Educational Communications and Technology, abbreviated as AECT) definition of induction and integration, unanimously agreed with the AECT (1994): Educational technology is the theory and practice of the design, development, use and evaluation of learning processes and resources to promote The definition of AECT (1994) is that educational technology is the theory and practice of designing, developing, utilising, managing and evaluating learning processes and resources in order to facilitate learning and improve the efficiency of teaching and learning (Seels & Richey, 1994). Chinese scholar He Kexiang believes that the main scope of research on educational technology is how to rationally use technology to promote the quality of education as well as the research and development of procedures and resources related to education and teaching (He Kexiang, 2006). Li Na points out that educational technology includes not only all kinds of teaching information technology (slides, projectors, etc.), but also the teaching methods used by teachers in the teaching process (Li Na, 2021). Combined with AECT (1994), He Kexiang and Li Na's understanding and generalisation of educational technology, the educational technology referred to in this paper refers to the software and hardware facilities affecting educational technology, i.e., the process of planning, management and implementation of the curriculum using various types of teaching and learning equipment in educational activities.

In conjunction with the educational technology referred to in this paper, the survey data in Figure 1 shows that the proportion of 5-10 courses in multimedia classrooms is close to 50%, which shows that the proportion of 5-10 courses in multimedia classrooms is the highest in offline courses, in other words, there is still a portion of offline courses that do not use multimedia classrooms. Figure 2 indicates that the percentage of 1-5 courses that are on-line is 41.38%, and the percentage of 5-10 courses that are on-line is 48.27%, which shows that school teachers have not taught a part of the curriculum at the basic education level on-line. The data in Figure 3 points out that 43.85 per cent of teachers of 1-5 courses supplement online course resources, however, only 17.73 per cent of teachers of 10-15 courses supplement online course resources, which shows that only a small percentage of teachers of courses supplement online course resources.

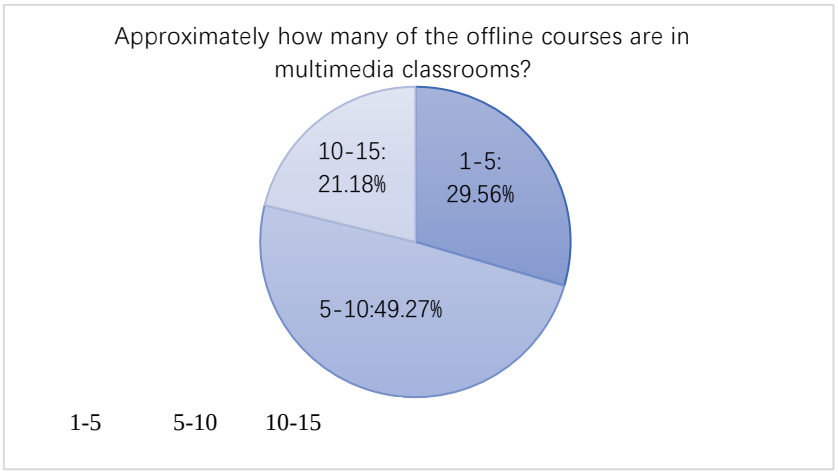

Figure 1. Approximately how many of the offline courses are in multimedia classrooms?

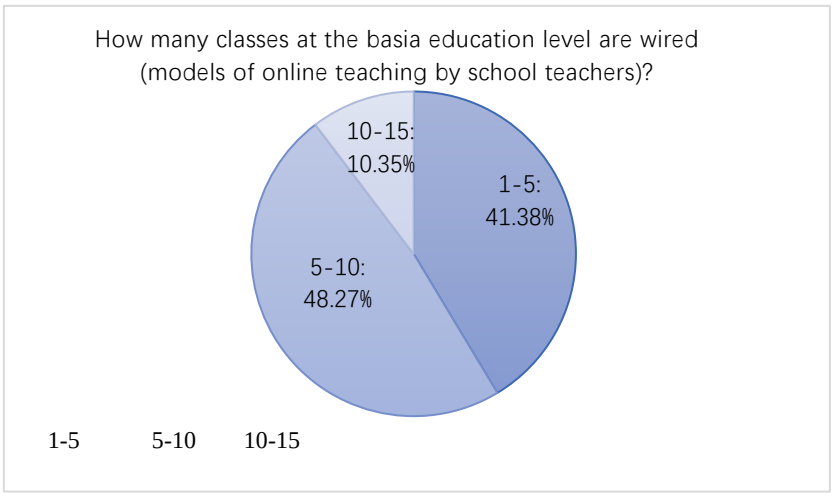

Figure 2. How many classes at the basic education level are wired (models of online teaching by school teachers)?

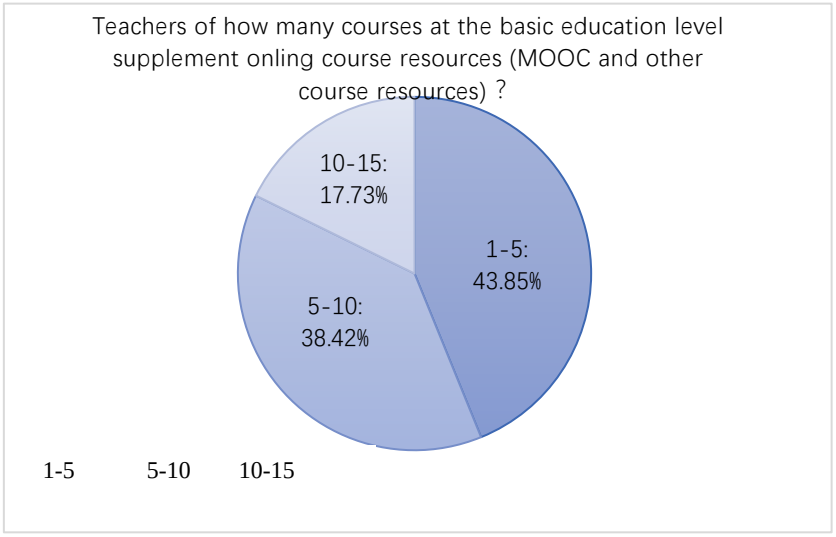

Figure 3. Teachers of how many courses at the basic education level supplement online course resources (MOOC and other course resources)?

Table 3. Survey content analysis table

Content of the survey	options	frequency (n=203)	per cent (%)
Did you regularly attend classes in multimedia classrooms during your basic education?	Yes	137	67.49%
	No	66	32.51%
Does the configuration of multimedia classrooms at the basic education level meet your needs for learning?	Yes	109	53.69%
	No	94	46.31%
Is the school in which you are enrolled in basic education well-equipped with a campus network system (hardware) to help students learn?	Yes	132	65.02%
	No	71	34.98%

According to Table 3, it can be seen that although more than half (67.49%, n=137) of the respondents had attended classes in multimedia classrooms, only a small percentage of them believed that the multimedia classrooms were equipped to meet their needs for learning. In addition, the chart shows that although the majority of the students have attended classes in multimedia classrooms, there are still 34.98% of the students who believe that their schools at the basic education level are not well-equipped with campus networks (hardware facilities) to help them learn.

3.3. Use of educational technology after school

Based on the data in Figure 4, it can be seen that only 39.9% of the respondents' parents equipped them with computers/mobile phones/tablets in the basic education stage, while 60.10% of the respondents said that their parents did not equip them with computers/mobile phones/tablets in the basic education stage. Difference analysis of Figures 4 and 5 shows that even though parents did not equip the respondents with appropriate computers/mobiles/tablets, nearly 13% of the students have a strong desire to learn online; on the other hand, 46.8% of the students do not actively use computers/mobiles/tablets to access relevant learning materials.

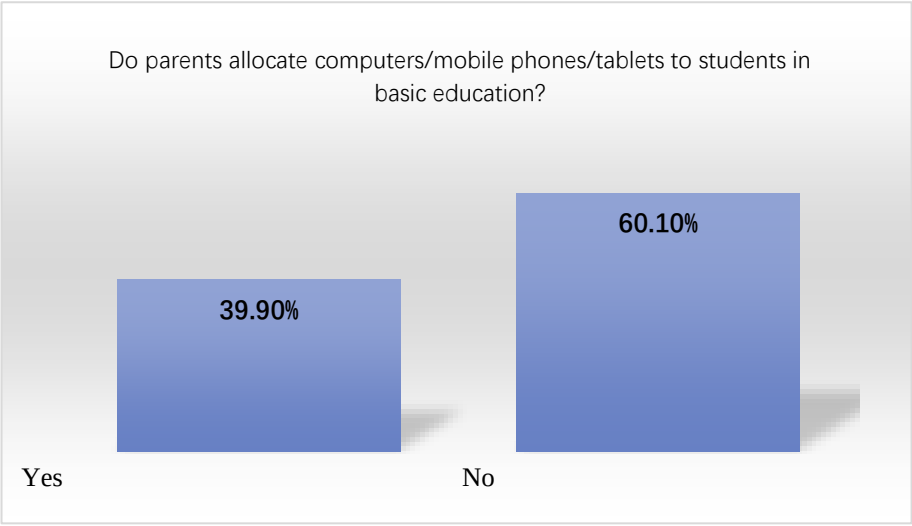

Figure 4. Do parents allocate computers/mobile phones/tablets to students in basic education?

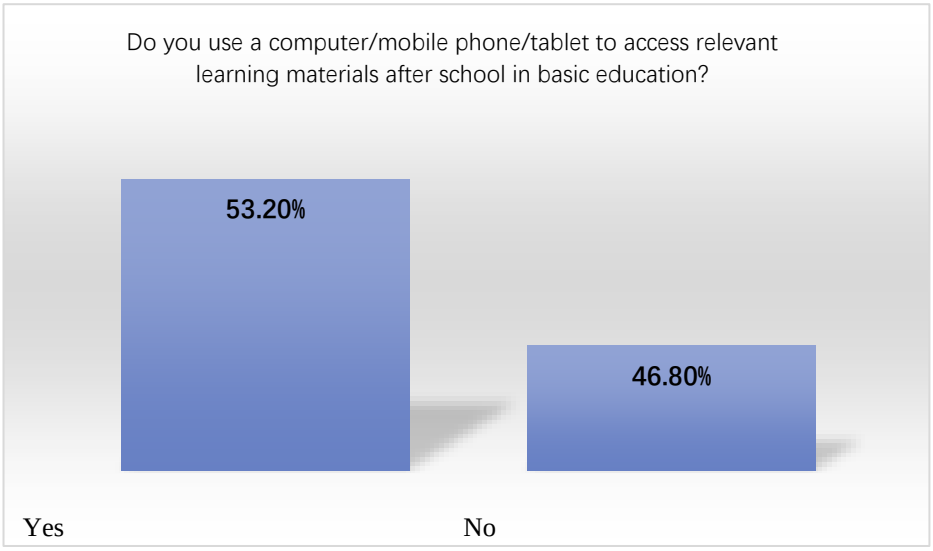

Figure 5. Do you use a computer/mobile phone/tablet to access relevant learning materials after school in basic education?

Based on the data in Table 4, it can be seen that 40.89 per cent of the students believe that the use of computers/mobile phones/tablets is helpful for academic performance, and combining the data in Figure 4, it can be seen that students whose parents have equipped them with computers/mobile phones/tablets at the basic education level believe that the use of computers/mobile phones/tablets is helpful for academic performance.

Table 4. Survey content analysis table

Content of the survey	Option	Frequency (n=203)	Percentage (%)
Do you feel that using a computer/mobile phone/tablet has helped your academic performance?	Yes	83	40.89%
	No	120	59.11%

According to Table 5, it can be seen that the overall parental support for the use of electronic devices by students after school to supplement their studies is positive, with 56.65 per cent support.

Table 5. Survey content analysis table

Content of the survey	Option	Frequency (n=203)	Percentage (%)
Do your parents support your use of electronics after school to supplement your studies?	Yes	114	56.65%
	No	89	43.35%
Does purchasing electronics after school put a burden on your family?	Yes	103	51.23%
	No	100	48.77%

3.4. Significant difference analysis

Firstly, as can be seen from Table 6, the t-test was used to investigate the variability in how many classes in the offline curriculum are in multimedia classrooms in different home addresses, and it can be seen from the table that the t-value is -5.706 and the p-value is 0.0, which indicates that there is a significant difference between the two sets of data ($p<0.05$). Secondly, using the t-test to study the variability of different home addresses in terms of how many classes at the basic education level are taught online (the mode of online teaching by school teachers), it can be seen that the t-value is -4.256 and the p-value is 0.0, indicating that there is a significant difference between the two sets of data ($p<0.05$). In addition, using the t-test to examine the variability of different home addresses in terms of whether students regularly access the Internet to obtain supplementary online course resources provided by their teachers, it can be learnt that the t-value is -3.843 and the p-value is 0.0, indicating that there is a significant difference between the two sets of data ($p<0.05$). Finally, the t-test was used

to study the variability of different home addresses in terms of whether or not the schools where the students are located in the basic education stage are well equipped with campus network systems (hardware facilities) to help learning, and it can be learnt that the t-value is -4.079 and the p-value is 0.0, which indicates that there is a significant difference between the two sets of data ($p<0.05$). In conclusion, there is a significant difference between home address and the use of educational technology in teaching.

Table 6. Independent samples t-test

	1. Home address (mean ± standard deviation)		t	p
	1(n=74)	2(n=129)		
Did you regularly attend classes in multimedia classrooms during your basic education?	1.243±0.432	1.372±0.485	-1.894	0.06
Approximately how many of the offline courses are in multimedia classrooms?	1.568±0.704	2.116±0.633	-5.706	0***
Does the configuration of multimedia classrooms at the basic education level meet your needs for learning?	1.419±0.497	1.488±0.502	-0.953	0.342
How many subjects at the basic education level are wired (a model of online teaching by school teachers)?	1.446±0.6	1.837±0.647	-4.256	0***
In how many subjects at the basic education level do teachers supplement their online course resources (MOOC classes and other resources)?	1.757±0.773	1.729±0.726	0.259	0.796
Do you regularly go online to access supplementary online course resources provided by your teacher?	1.216±0.414	1.481±0.502	-3.843	0***
Is the school in which you are enrolled in basic education well-equipped with a campus network system (hardware) to help students learn?	1.176±0.383	1.45±0.499	-4.079	0***

4. Conclusions and reasons

4.1. Wide disparity in the allocation of resources for basic education between rural and urban areas

Basic education resource allocation is the material foundation for schools to carry out all teaching and learning activities, and it is also the most basic educational resource. The findings of this paper are consistent with those of scholars that the ratio of educational technology hardware facilities construction in rural and urban areas is still in a state of imbalance, that is to say, the hardware facilities of rural schools lag far behind those of urban schools. Through the analysis of teachers' interview data: Teacher 02: In fact, because the school is in the countryside, so that some, such as hardware facilities, software facilities are not very well in place; Teacher 03: Like there are some classrooms are not multimedia, so still need to carry out the board, there are some classrooms of multimedia aging, the maintenance of the later can not keep up with the situation, resulting in the inability to use.

It can be learnt that schools in rural areas have the phenomenon of under-utilisation of educational equipment and have not been able to combine the characteristics of educational technology and the actual situation of the schools well. Outdated teaching equipment is difficult to meet the construction standards of national education information technology hardware facilities. Finally, affected by the traditional teaching mode, many rural teachers are not accustomed to using multimedia, accustomed to the teaching mode of blackboard and chalk. Once the teaching equipment in rural schools breaks down, sometimes there is no professional staff to carry out timely maintenance, as well as some teachers operate improperly, resulting in equipment damage and multimedia unattended. However, compared with schools in rural areas, schools in urban areas have more advanced technological equipment, which is regularly updated and maintained. Teacher 01: It can meet my daily teaching

needs because the technical equipment is more advanced; Teacher 04: It can basically meet my needs because the school regularly updates the computer system and office equipment.

4.2. Imbalance in education funding between rural and urban areas

This is the material basis for the survival and development of rural schools and a prerequisite for optimising the allocation of basic education resources.

Unbalanced education funding between rural and urban areas However, it was learnt through interview analyses:

Education Bureau 05: The Education Bureau has certain standards when allocating funds to schools at all levels. Nowadays, according to the requirements of the higher level, we have to build model high schools, and according to the principle, we will give priority to the high schools in the urban area;

EDB06: A good high school first in the teachers, student body, the success rate of this piece is a "sign" necessary conditions, for the city-level excellent high school, we will be appropriate to give more financial support or other aspects of the support to help excellent high school to a better and stronger level to develop;

Student 12: Schools in rural areas simply do not have sufficient policy support and financial support, and the education technology equipment is not perfect and does not form a system that develops very slowly;

Student 14: Especially our schools in rural areas lack a lot of technical and financial support.

Therefore, unbalanced education funding is a key factor in the optimal allocation of resources. With a certain amount of funding for education as a whole, allocating more to schools in urban areas will result in fewer schools in rural areas.

4.3. Different levels of importance attached by teachers to educational technology

The IT literacy of a team of teachers determines the level of educational technology development in a school. Information technology literacy refers to the teachers' level of information technology and their attitude towards it. If a teacher has a high level of IT literacy, he/she has a relatively high ability to develop curriculum resources and can make use of the advantages of technology to carry out teaching activities, which is conducive to stimulating students' interest in learning and tapping their learning potential, thereby promoting the development of all students. In addition, teachers' attitudes towards information technology determine whether they actively participate in relevant educational technology training to enhance their technological literacy. The study of rural and urban teachers revealed that some teachers still insisted on using the traditional teaching method of blackboard and chalk: Teacher 02: Relatively speaking, I am still used to using the blackboard and chalk. The traditional way of teaching has basically achieved the effect of knowledge. In addition, the facilities in the school are not well equipped, so I use traditional teaching methods more. Some teachers think that there is not much need to use IT in teaching; some old teachers think that it is the responsibility of young teachers to learn new technologies: Teacher 03: I usually use the blackboard more in teaching, but I am not very proficient in education technology, and it is quite difficult to learn it, so I feel that I can't keep up with the times as I am getting older. Nowadays, the new young teachers know more about computers and are more innovative in their teaching methods. But those teachers who have a positive attitude towards knowledge will seize every opportunity to improve themselves to better help the country cultivate talents: Teacher 04: With the progress and development of the times, educational technology is a necessary trend to assist teaching and I think it should be vigorously promoted and applied! Personally, I use educational technology when I prepare lessons and teach. I am also very active in learning some new teaching techniques, which is very helpful in motivating students' interest in learning.

4.4. Students' information technology literacy needs to be improved

The data from the interviews show that students in rural areas use electronic and other technological devices at the basic education level mainly for recreation and relaxation, and that few actually use electronic devices to help them learn. This shows that the IT literacy level of students in rural areas is still limited to the use of information tools, and there is still a lack of access to information: Student 07: I am not particularly active, because I think that the content taught in school is enough to cope with the exams, and if I want to look up other information, I will use my parents' mobile phone to do it; Student 09: I use my mobile phone to look up information on maths topics, but when I do it, I may not be able to do it; Student 10: I use my mobile phone to look up information on maths topics, but when I do it, I may be able to do it. I use my mobile phone to look up information on maths topics, but I get distracted and start playing with my phone. As far as students in urban areas are concerned, they have a more positive attitude towards the use of electronic products, and in addition to entertainment and relaxation, they will also use appropriate APPs to solve their learning problems: Student 08: I must, I used a tablet computer to memorise English words in my senior year of high school, which is particularly efficient, and there is also a kind of problem solving APP, which provides explanations for questions that I can't answer when I take a picture of it and upload it.

4.5. Parental support for students in educational technology is positive but limited by family economic factors

Interviews revealed a significant difference in the amount of education received by urban and rural students. Urban students receive significantly more education than rural students. The quality of education received by rural students is at a disadvantage, and even basic quality is not guaranteed: Student 12: The money that my parents earn from their hard work is enough for us to live as a family, but if we have to pay for additional electronics, we cannot afford it. In addition, Student 06 from a rural area has an older brother at home, but according to his description, his older brother is not good enough to ease the family's burden, but instead has to ask for money from his family, and he has to save money on school supplies in basic education, not to mention the opportunity to use technology products to help him learn. This shows that students in rural areas are affected by their families' economic conditions in terms of the use of educational technology. In contrast, in urban families with better economic conditions, parents try their best to provide more learning opportunities and create better learning conditions for their children. For example, in order to provide a better learning and living environment for their children, many parents will equip their children with electronic devices to help them learn. These further exacerbate the differences in educational technology between urban and rural students in the basic education stage. Student 08: I used a tablet computer to memorise English vocabulary in my third year of high school, which is very efficient, and there is also a kind of problem solving app, where you can take a picture of a question you don't know and upload it, and it will give you an explanation. Student 11: I use it more after school. I am usually not allowed to use electronic products in school, but on weekends when I go home, I can use my computer, mobile phone and tablet to check the study materials and supplement my knowledge outside the classroom.

5. Recommendations and responses

5.1. Accelerating policy support to ensure equity in education

The State should formulate appropriate policies and plans for the development of educational technology and the promotion of equity in urban and rural education, so as to promote the equalisation of educational technology in urban and rural areas. In terms of academic research, the state should correctly guide relevant scholars to explore the equalisation of educational technology in urban and rural educational equity, and formulate the basis and principles of educational technology in promoting educational equity in urban and rural areas of China from the perspective of the state. At the same time, the relevant departments of the state should adopt positive policies, and release,

implement, feedback and improve the policies in a practical manner. Specifically, in terms of policy release, the state can issue some favourable policies to address the current inequity between urban and rural education technology, encourage other social actors to participate in and support the balanced development of urban and rural education in education technology, and actively promote the fair development of contemporary education; in terms of policy implementation, governments at all levels should fully mobilise the enthusiasm and direction of the work of their departments according to the policies of the higher levels, and effectively do the policy propaganda work at the same time. In terms of policy implementation, governments at all levels should fully mobilise the work of their departments in accordance with the policies issued by their superiors, fully mobilise the work of their departments in terms of motivation and direction, and put the policies and systems on the ground while doing a good job of policy publicity; in terms of policy feedback, regions should take into account the times and the situation, identify and raise problems in a timely manner in the course of progressively promoting the implementation of the policies, and rigorously do a good job of the feedback mechanism of the policies; and in terms of policy improvement, the superiors should listen to the opinions of the higher-level departments extensively, and organically combine the policies with the urban and rural educational technology of the various regions, in order to guarantee the equitable development of the urban and rural educational technology.

5.2. Increasing financial inputs to promote equity in education

"In the Fourteenth Five-Year Plan, Title XIII, Chapter 43, Section 5, calls for: adhering to the principle of public welfare in education, increasing funding for education, reforming and improving the management system for the use of funds, and improving the effectiveness of the use of funds. Similarly, the Ministry of Finance of the People's Republic of China, in order to thoroughly implement the spirit of the Twentieth National Congress of the Party, to guide and support the local consolidation and improvement of the education funding mechanism, and in-depth promotion of the improvement of weak links and capacity enhancement work. It can be seen that the development of education is closely linked to the material foundation of funding. The economic foundation of rural areas is relatively weak compared to urban areas, we should always adhere to the government as the leading role, the community and schools as a supporting role, multi-channel to broaden the funding, put the policy into practice, and balance the development of education technology in urban and rural areas. At present, there is a large urban-rural gap in the development of educational technology, in order to promote educational equity and narrow the gap between urban and rural areas, financial policy should be tilted towards rural areas to a certain extent. In addition, the proportion of investment should be balanced and funding should be increased, in the macro sense by increasing funding for rural and urban education, and in the micro sense by balancing the proportion of investment in educational technology software, hardware and potential in each school.

In terms of fiscal policy, China Education Modernisation 2035 points out that, in order to ensure the achievement of the goals and tasks of education modernisation, it is necessary to improve the input support system for education modernisation, and to improve the long-term mechanism for guaranteeing a sustained and stable increase in financial investment in education. In terms of government investment, financial support from the state should take the lead, ensuring that rural schools are funded, and that schools establish and improve a system of earmarking funds to guarantee the amount of money used for education technology. China Education Modernisation 2035 also points out that the responsibility for education expenditure at all levels of government should be implemented in accordance with the law, and a multi-channel education financing system should be improved. In terms of social support, it is necessary to broaden investment channels, use a variety of ways to encourage social investment, improve the incentive mechanism for donations to education funding, and attract the injection of external funds, and, admittedly, schools should independently raise their own funds to guarantee the balanced development of education technology.

In terms of balancing the ratio of software, hardware and potential investment, many schools in rural areas currently suffer from a low rate of educational equipment use and belittle the updating and

purchase of software and hardware facilities. Therefore, schools should effectively put into use the equipment that exists, and optimise, update and integrate hardware and software. In addition, the current school teachers in rural and urban areas do not have the same concept of using educational technology equipment, so in terms of potential investment, the construction of a good teaching staff and the training of excellent information technology-based personnel is also an important process of balancing the educational technology in urban and rural areas.

5.3. Raising awareness of information technology and training information technology personnel

Due to the geographical particularities of rural areas, the general environment of informatisation in the whole region is lagging behind that of urban areas. In order to fundamentally change the overall level of informatisation, it is necessary to start with the school, from school leaders and teachers down to students and parents, all of whom must undergo effective training to raise information awareness and promote the concept of educational informatisation.

In order to improve the informatisation ability of school leaders, school leaders should often read and study education and management books, update their outdated education concepts, understand the relevant concepts of modern education technology, and use better informatisation concepts to guide the development of education technology in schools and the growth of the teaching force. In addition to their own learning, it is also important for the education department to organise regular training for school leaders to fundamentally improve their awareness of information technology and information technology leadership.

In the era of informatisation, school teachers should also take the initiative to learn, continuously improve their professionalism, and enhance their overall quality and teaching ability. Similarly, in the process of promoting teachers' professional development in information technology in education, strengthening teacher training is an effective path for teachers' progress and growth. Efforts should be made to create suitable conditions for teachers to receive and experience information technology teaching, for example, allowing teachers in rural areas to observe the classroom teaching of teachers in urban areas. Therefore, for educational technology training, the content of teaching should enable teachers to combine theory with practice, learn modern teaching methods and develop their ability to acquire, select and process information.

Both the upgrading of school leaders and the training of school teachers are for the development of the school, while the ultimate goal is for the development of students, for improving their information technology skills, and for narrowing the gap between urban and rural areas in educational technology as much as possible. Many schools in rural areas do not use educational technology frequently in the daily curriculum, which greatly reduces students' exposure to educational technology and affects their awareness of information technology. Schools should co-ordinate a range of activities and programmes to stimulate students' enthusiasm and desire to learn using educational technology devices. In addition, parents' attitudes towards their children's use of educational technology and other electronic devices to support learning are also worthy of attention. Every parent wants his or her child to be better, but due to the economic constraints of the family, it is difficult for many students in rural areas to have their own educational technology devices at the learning stage. In this regard, parents of students in rural areas should establish a correct awareness of modernisation and information technology in education, and provide the conditions to meet students' learning needs as much as possible.

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