

Investigation of digital reading in middle school students with hearing impairment

Hu Jinping 1 Ma Yongqiang 2

(1. Special Education College of Jinan University;2. Jinan Hospital Rehabilitation Department Jinan, Shandong 250022)

Abstract: with the development of information technology, educational innovation emerges endlessly. While the internet has brought convenience to educators, many problems have arisen. The popularity of computers, phones has greatly improved people's reading, with emerging nouns such as "deep reading", "shallow reading", "fragmented reading" and "digital reading". Hearing impaired as A special group of, few scholars study the development of digital reading. From the angle of digital reading, taking the Dongying Special Education School and the Qingdao Deaf School as the example, through the questionnaire survey and the teacher interview, the paper investigates the present situation and the influencing factors of the digital reading of the students with hearing impairment, through the analysis of the results of the investigation and the SWOT Analysis, mention the specific digital reading improvement strategy, in order to better promote the hearing impaired students learning and reading development.

Keywords: hearing impaired students; digital reading; Status quo; influencing factors

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1. INTRODUCTION

digital reading, as the name suggests, is the digitization of reading, the main to have two meaning: the first is the digitization of the Reading object , that is, the content of the reading is presented in digital form, such as electronic books, network novels, electronic maps, digital photos, blogs, web pages, and so on; the second is the digitization of the Reading method , which is the carrier of the reading, the terminal is not flat paper, but the screen display of the Power Sub Instrument, For example,PC computer,PDA,MP3,MP4 , laptops, mobile phones, e-readers, and so on. [1]

research from home and abroad can be seen that the focus of attention of researchers mainly in general Pass the crowd, less attention to special people. Because of the variety of special population obstacle types , the situation is complex, this article chooses the hearing impaired students as the research object. [2]by with their hearing flaws, they cannot get information through hearing, resulting in their table

like lack, poor cognitive ability, slow thinking and speech development, compared to normal students the has great differences, such as difficult reading habits, fixed reading, and reading tolerance and interest. With the popularization of the network, the reading way of the middle school students with hearing impairment is a rut or changes with the development of the Times?

This study is based on the study of digital reading literature at home and abroad On the basis of This, this paper presents the present situation of digital reading for the students with hearing impairment. Dongying Special

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Education School and Qingdao Deaf School For example, issue questionnaires And the data statistics,

analysis, through the questionnaire analysis, practical interviews, to understand The students in the digital reading of the status quo and influence factors, with the help of SWOT analysis, to derive their strengths, weaknesses, opportunities, and challenges in digital reading; for the practical problems existing in the development of digital reading in special education schools, draw up recommendations and conclusion, it is better to improve the students ' digital reading ability and literacy, and to learn The development of the ability.

About the author:Hu JinPing (1988-) ,Woman,Lecturer, Jinan University,Master,Research direction:Psychology and education of special children; Sports for special childrenComplex; HorseYongStrong (1993 -) , female , Shandong Linyi person , Jinan Hospital Rehabilitation Department teacher , research side to:Cognitive rehabilitation of autistic and mentally handicapped children. Fund Project : Shandong Province Education Science Plan key course question"Study on the connotation development and guarantee support system of special education in Shandong province "(VZ1500 8) YesFruit one ; Jinan Grand School of Education and Psychological Science research item eyes "The background of special education in the context of the combination of medical education and teaching" the construction of the platform "" (JX160 5) into fruit .

Analysis on the present situation of digital reading for the students with hearing impairment

1.1 survey design. Restricted by the school where the object is being investigated, this article takes the all hearing impaired students of the Dongying Special Education School and the Qingdao Deaf School as the object of study to learn from the current situation of college students ' digital reading Check the questionnaire, combined with the internship in the school hearing impaired students cognitive status quo, to ask the volume test, the release of questionnaires and retract, the questionnaire appears in the The issue is slightly modified, to carry out the formally released after a modification, so the questionnaire has a better Reliability and validity. A survey of "the status quo of digital reading for students with hearing impairment "

For the past week, traditional reading

The number of digital readings that have been done in the past week

	0Times	1-3Times	4-6Times	7 above	Times	Total
0 Times	8	6	0	0		14
1-3Times	4	10	1	3		18

The questionnaire designed a total of a question, the last of which is open question

Questions, the respondents are free to answer. The questionnaire involves hearing impaired students

The number of times 7 Times above 11237 Total77A

The understanding of the concept of digital reading, the reasons, times and

content, location, form, digital reading problems and future trends, involving The aspect is broader, enabling a more comprehensive understanding of the development of digital reading for hearing-impaired students. Because of the particularity of this group of hearing impaired students, combined with his small number of, and students with hearing impairment in special education schools , the Number of objects is much less, So this survey uses a full investigation. This survey issued questionnaires , actual recycle copies,recovery from 100%, where valid questionnaires - Copy, active rate 97.8%. A valid sample of covers the first, second, third, senior, five-grade hearing impairment in a total of four grades.students, of whom boys people, Girls A person, lodging student ? people, non-lodging students

9 person.

1.2 Analysis of results.

1.2.1 The basic situation of digital reading for students with hearing impairment. In the questionnaire, the concepts of traditional reading and digitized reading are interpreted in a layman 's way so that the survey objects can better distinguish between the two concepts. Hearing impaired students already have a certain number

of words sinks, cognitive level and understanding ability is relatively good. For the understanding of the concept of digital reading and biography of , it can be found that about One-third of the students with the are able to understand the concept of the two ; Most hearing impaired secondary schools The Health has only heard of the concept of traditional reading and digitized reading, but it is not clear; also have a few less understanding of the concepts. In the survey, the questionnaire did not add the to the interpretation of the concept, and almost all the hearing-impaired students were unable to complete the questionnaire independently and smoothly . But after the explanation, it is easy for them to understand the difference between the , plus the concept of more abstract, do not know is normal, in a more popular "" method, they are easy to understand, such as reading books is traditional reading, online reading electronic file is digitized reading.

because reading behavior can occur anywhere, and then digitally read data is scattered, reading often occurs in the leisure space, many people use the 0 break time to start reading, so in the actual investigation is not easy to record the reading occurrence and holding the continued time , the number of digital readings and traditional readings in the past week has been compared to. Cross-Analyze the collected data [3], resulting in tables 1 .

Table 1 data shows that during the past week, students with hearing impairment read The current situation of is not optimistic, whether it is traditional reading, or digital reading, reading hairless often, which can prove the consciousness of active reading in the students with hearing impairment weak, reading enthusiasm needs to be improved.

reading requires a certain amount of equipment, the school is equipped with multi-media classrooms, diagrams Library, the school opens a weekly computer course. Parents learn better for their children, and also buys electronic products that help them learn, such as mobile phones and computers. For to understand how hearing impaired students digitally read, they specifically investigated the devices that they used in the reading, in the current era of rapid Internet development, students with hearing impairment The is digitally read through computers and mobile phones, with a difference in the number of people using them . Although the computer is bulky and inconvenient to carry, it is accessible to students who stay in the school , such as libraries, multimedia computer classrooms. Mobile phone is smart, easy to carry, and can be used anytime, anywhere with a phone number character reading, but schools will generally prohibit students to bring mobile phones into the classroom to the dormitory, resulting in fewer phone use than the number of computer users . Reading is a purposeful and conscious human activity, [4]Hearing impaired students ' Reading also has some purpose. The result is as shown in the figure 1 : Figure 1 Why digital Reading

Discover by survey (see Figure 1, the " reason " fordigitally reading for students with hearing impairment 50% is a learning requirement, The reasons for access to information and entertainment account for the 16%, and other reasons for 18% . It's not hard to find that they go to the with the purpose of learning

the motivation for digital reading is relatively strong, and a small number of hearing-impaired students are for Hugh To do digital reading for leisure.

for digital reading sites, they are mainly located in teaching venues (learning School, dormitory, family bedroom, which is determined by their identity and scope of activities, they most of the time is in the school or student dormitory, and the family is its life and activities the site of the, in general, students ' bedrooms are equipped with desks and computers.

reading is a cognitive process, and the choice of reading content depends on reading , with the advent of the digital age, does not necessarily have to hold the reading purpose to go to toread, the popularity of mobile phones, the development of the network to read more and more Fragmented, Fragmentation, the reading function is also more and more rich. The results of the questionnaire are as follows: 2, then nearly 50% The content of the reading is to watch videos, pictures, find learning learning materials, microblogging,QQ ,, and other interactions. After observation and interviews, students with hearing impairment, although the has no hearing, but do not prevent them from watching the video, they can see through the word screen. Most hearing-impaired students tend to

choose a picture-style reading within , not only because of the simplicity of the picture, but also with their "visual advantage" with the . They are more difficult to learn than ordinary students, digital reading can help him to Find learning materials, support learning. Moreover, through the microblogging,QQ can expand his contact scope, to achieve normal interaction with ordinary people, interactive. Of course, about 25% High school students like to watch electronic magazines, novels, etc., view the news, but See their reading interests are no different from ordinary people, they will also pay attention to the domestic and foreign time , but also read electronic magazines, novels for entertainment. Some hearing-impaired students also have a with residual hearing, listening to and downloading music is also one of the readings, but this only applies to with a small number of hearing-impaired students. In addition , some of the hearing-impaired students will read the some other content. Figure 2 Digitally Read content

1.2.2 The attitude of deaf students to digital reading and traditional reading. In recent years, the rapid development of the digital reading has brought about a huge impact on traditional reading, and The has sparked a debate about the two. [5]The development of any kind of thing is gradual The is accepted by the public, as is digital reading, and its appearance, although it has an impact on the pass reading, does not replace the status of traditional reading. For hearing-impaired students, living in the age of the Internet, have their own view of the form of the reading as a. Compared to digital reading and traditional reading, the results are shown in the figure 3:34% listening disabled students think it's okay Whether it's a traditional reading or a digital one, it changes to

The change is in the form of reading and the content is unchanged.[6], nothing for reading itself means good or bad. However , the 23% High school students advocate Digital reading, which is considered better than the text of the . There are also 23% hearing-impaired students who think the two are good, and should coexist. Of course, the traditional reading can not be abandoned,the20% of hearing-impaired students advocating the "" read.

Although from the diagram 3 you can draw a "digital reading is better than traditional reading" knot , but the two can only choose one, 53% hearing impaired students still will Select traditional reading, which is not only a reading tradition, but also a reading habit of their long form. For hearing-impaired students, book contact is much easier than electronic devices. Although traditional reading is in a good position, digital reading of still brings a certain impact. About half of the hearing-impaired students think that the digitized reading of the read reduces the time of the traditional readings, and that the 30% students with hearing impairment do not see the shadow The rang, and a small number of hearing-impaired students thought they would be more enthusiastic about traditional reading. This shows that students with hearing impairment are very fond of the traditional way of reading. This coincides with the results of the above study.

off to digital reading is shallow read Read , traditional reading is read deep Read One the is the focus of scholarly debate . in the hearing impaired middle School The appears , the% The people agree with this view dot , the person who 11% does not agree with this view, and also has the with % The person holding the inaccurate set . can see , inaudible read the depth of the two students understanding is not objective , cannot drill down into the depth of both readings.

1.2.3 the problems of digital reading and the views of the deaf students on their future development trend.

The future society, will be a learning-oriented society, digital reading is the end of the Body Learning, the foundation of universal Learning. At this point, it is still in its infancy and there are many problems with. As shown in the figure 4, hearing impaired students believe that "the failure to form a digital reading industry Chain" is the biggest problem in the development of digital reading. Digital reading good Development is the formation of reading materials from the source, release, update, maintenance, such as a series of rings section of the scientific, normative industrial chain, each link must be strictly supervised. [7] and look at before, the reading content on the Web is uneven, the ads are wide, and the effect is benign Development. Again, the traditional reader of the habit of reading difficult to change, some effect is the number of reading is difficult to compare, such as the ink flavor of books, many readers like the smell this taste, There are some annotations, reviews that can be easily

done through books, and Digital reading needs to be continuously optimized if it is to compete with traditional reading.

the future of digital reading is promising. It is not difficult to imagine, when the network Pu and tens of thousands of households, people's digital reading will be more common and frequent, this will lead to a series of related industry development. [8]36% hearing-impaired students recognize for digital reading "will become the mainstream reading of the future", of course, there are 34% The hearing-impaired students think that "will evolve, but never go beyond the traditional reading", and the 16% the hearing impaired students of the keep abreast of traditional reading. From the results of the look, the deaf students to the development of digital reading attitude is positive, but none on how to develop, traditional reading will still occupy a certain position.

1.3 hearing impaired students in digital reading SWOT Analysis

Check the questionnaire, still use other people's questionnaires, using the five-level assessment method, respectively from performance expectations (PE), effort expectation (EE), Social impact (SI), Promotion Factors

(FC), perceived risk (PK), Path dependencies (P), digitized reading characteristics (DC), read Read will (RI), read behavior (RB) Nine dimensions (design phase in each dimension Questions to investigate) the factors that affect the digital reading of the students with hearing impairment are analyzed, and the average value is obtained in order to find out the concentrated distribution of the influencing factors conditions, thus proposing concrete countermeasures to better promote their digital reading of the Show. This survey issued a questionnaire, actual recycle the , the recovery rate is 100%, where the valid questionnaires are , the effective rate is 88.9%. Effective samples of the Han covered the first grade, second, third, senior, high school students with a total of five grades of hearing impaired, One of the boyspeople, Girls @ people, Junior high school people , high-school students each person.

2. result analysis. As a result of the five-level assessment method to collect data, and the questionnaire related to and more dimensions, each dimension will also be detailed design the corresponding problem, the to the original data statistics of each dimension average, and then statistics „-bit-deaf Middle School students in each dimension the total average, then calculate the Junior high school students and high school students average in each dimension to simply understand the level of recognition of these nine dimensions by the student in the Deaf Middle School, where 1 represents Very disagree ",2 generation table" Do not agree ",3 on behalf of" General ", 4 represents "consent", and5 represents "very agreeable", by 1-5 The degree of satisfaction is increasing. Statistical results are shown in table 3 :

3. Investigation of the factors affecting the digital reading of students with hearing impairment and Analysis

4. The investigation of the influential factors of digital reading in the students with hearing impairment.

4. 1 Questionnaire design. On the "factors affecting the digital reading of hearing impaired students"

From the above data, the overall, hearing impaired students to "promote factors

(FC) "is the highest level of recognition, digital reading equipment can be foreseen, digital reading knowledge and skills, other people's reading instructions and strategies, and digital readingcompatibility are the main factors affecting digital reading.

4.2 comparative analysis of the influential factors in digital reading of hearing impaired middle school students and high school students fruit . With the table 3 , there is a different view between hearing impaired junior and high school students about The factors influencing the reading of numbers, and junior students tend to read behavior

(RB), that is, the frequency of digital reading, the need for reading resources, reading ability The intention of is the main factor affecting digital reading, while the high school students ' view inconsistent with the overall survey.

To sum up, digital reading of hearing-impaired students is affected by many factors, both external and internal factors such as reading materials, reading environment, reading device, Reader's intrinsic motivation and

so on. A variety of factors coordinating the role, together restricting the The development of digital reading for students with hearing impairment.

Problems and suggestions on the development of digital reading for students with hearing impairment

4.2.1 civilized Internet access, social, school, family combination. Number of students with hearing impairment character reading literacy is low. In social life, to guide the deaf students learn to dividethe The authenticity of digital information, strict demands on themselves, do not randomly spread bad information. In the family, parents to limit their time to surf the internet, reasonable rest, duinternet Addiction, to develop a regular habit of surfing the internet. In the school, teachers should also use the body , the class to eliminate the behavior of mobile phones, the class reading useful learning development of the content, and dissemination of positive digital reading content. Social, school, family combination can create a civilized digital reading environment.

4.2.2 improve the digital reading ability of students with hearing impairment. The digital reading ability of hearing-impaired students is low. Teachers should train students to master basic digital skills, such as Internet access, basic operation of common software and entertainment APP use steps to facilitate him They learn and interact normally. Students with hearing impairment need to have autonomy and Independence, and their auditory barriers make their vision more sensitive. Digital Reading read the arbitrary relatively strong, teachers to guide them in-depth reading, independent thinking, lowering the the entertainment of low reading, through the digital read enrich The daily life experience, out of Narrow Circle of friends to adapt to the mainstream of social life.

4.2.3 develop interest to promote cognitive development in students with hearing impairment. Hearing Impaired Middle school students Cognitive ability develops slowly, appearance lacks. The content of the digitized reading is extensive, abundant Rich, can satisfy their personalized request. Teachers can recommend to students the professional APP to help them learn sign language and gain more knowledge of the world. Teachers also can create a QQ Group, Interest Discussion Group, guide students to Digital reading, , or initiate a discussion on a topic, Or ask the student to write a review of a book , which allows students to love reading, enjoy the fun of reading, and enrich their Image Library to improve their cognitive abilities, Promote the development of cognition.

4.2.4 improving the quality of school library services. School digital reading facilities busy set , resource waste.

The library should serve functions for all readers, including specialaudiences , which also embodies the concept of people-oriented. However, in the context of the service for hearing-impaired students, Most school libraries are less focused, and the concept remains to be updated. [9]The library should be regularly open and continuously optimized to meet learning personalized reading, and many other requirements, the ability of the special Education school map Library to meet the individualized reading needs of every hearing-impaired student. Each obstacle

The type of student has all kinds of problems, the library has to do is to collect more related professional books for teachers, parents to learn and draw lessons from, set up the school's web site and forums for teachers, parents on student issues to discuss, troubleshoot. The student's Professional database is also constantly being perfected, individualized, and opening special software to students for Specialized learning.

5. Conclusion

The rise of digital reading adapts to the trend of the times and the life of people who are fast-paced Live, and its development prospects are limitless. With the government's support, the National network management is increasingly perfect, digital reading will continue to improve and develop. Students with hearing impairment to return to the mainstream society, must adapt to mainstream social life and learning side . Under the background of the mainstream society, digital reading, as a new way of reading , will become more and more popular. Although the digital reading of the reading of hearing-impaired students is just beginning, in the course of the investigation, we find that they do not exclude the This way of reading, instead, Students with higher cognitive ability also tend

to choose to recognize the world. It can be foreseen that the future Development of the digital reading of the reading for hearing-impaired students will be more rapid and the use of objects will be more common.

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