THE EFFECT OF PROFESSIONAL BACKGROUND OF THE DEAF CLASS SIGN LANGUAGE INTERPRETER

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Abstract : As the key word, "Educational sign language interpreter" or "class sign language interpreter" and "professional subject knowledge" is fully text searched in Google, get 28 results. More than 6 items about the role of sign language interpreter in fusion education environment, among them 7 is about the interpreter training , mentioned that the interpretation needs to have professional background, but did not have the experimental results. The paper is verification of the effect on professional background. Firstly, we carried on the questionnaire survey about the problem of deaf student communication and what kind of the interpreter they demand. Then for the demand, the interpreter with the professional background work in deaf class for a semester. The result from the comparative analysis of final grade of two deaf students between A and B . They are all excellent learning, hard of hearing, A does not know sign language, B knows sign language. Analysis the three professional points as follows: demand analysis,use case diagram and class diagram". Free translation part of above three by interpreter is 20%,40% and 40%, free translation is added understanding and repeat of interpreter. Their scores of three points are respectively 8.7 / 8.7,6.5 / 8.5, 6 / 8. we can see that on the points of more free translation, B is significantly better than A. So we summary that the interpreter with professional background can help deaf student master professional knowledge with free translation in their class.

Keywords : Sign language translation, software engineering, class, background knowledge

1.INTRODUCTION

Now, most educational sign language interpreters work in special education school .(Zhang, 2009) In the special education school, teachers are asked to teach with sign language. But some part-time teachers from other schools have no experience to use the sign language and teach the deaf. These part-time teachers

need sign language interpreter to help teaching. In the process of teaching, sign language interpreters are the main communication channel between teachers and deaf students, and they need to make the necessary explanation and repeated explanation of teaching content.

For example, the interpreter of "software engineering" class is an undergraduate with background of software engineering, and have learned sign language systematically.The learners are collage deaf students major in computer science and technology . The course includes two parts: one is the content that sign language interpreter have known, and another is the part of the curriculum content which interpreter was not familiar with or without translation. In the paper ,we use the methods of questionnaire survey, real-time quiz to check the degree of the students grasping of the above two parts, and analysis, compare influences on teaching achievement when the interpreter with or without the professional background .

2. BACKGROUND

In America, a full-time sign language interpreter have to receive formal training for 3 or 4 years, and obtain the corresponding diploma and occupation qualification, then they can enter the education units to provide interpretation service for deaf student.(Li , 2012)(Lu , 2013)(Wang , 2013)(Chen , 2009).But in China, sign language interpreter are the teachers and students having the sign language ability. And they are cultivated without classification (such as medicine, law etc.). So the interpreters, having common knowledge without professional knowledge, seems that they can deal with all kinds of translation, but actually they are difficult to become a qualified interpreter in a special field. At present , China is short of professional sign language interpreter, especially sign language interpreter with the branch clearly and high professional degree. The task of existing sign language interpretation is miscellaneous. They interpret not only for meeting and activities, but also for the strong professional class. According to the existing translation experience, the interpreters without professional knowledge translate professional content. They may make the wrong judgment for the professional vocabulary according to their knowledge, and that will seriously affect the deaf students' understanding of professional knowledge. (Zhang, 2012)(Meng, 2013)

3. ANALYSIS OF CLASS INTERPRETING ENVIRONMENT

The environment of "Software engineering" class is a multimedia classroom. The classroom can hold 30 students, having a blackboard, chalk and other teaching aids.

The part-time teacher teach student by using PPT, supplemented by writing on the blackboard to explain the PPT. The course aims to let students understand the software development cycle, and the activities in the cycle. The most important term is to enable the deaf students to master the software engineering thought. However, deaf students can not good at math, logic and knowledge migration clearly, making it difficult to study the course. However, the sign language interpreter of this course was an undergraduate major in "software engineering" having enough software engineering knowledge and sign language knowledge.

4. THE CLASS SIGN LANGUAGE INTERPRETATION

4.1 Problems and solutions

1) Vocabulary interpretation

Before the class began, the sign language interpreter communicate ,determine and unity vocabulary with the deaf students, making sure that most of the deaf students can understand common sign vocabulary in teaching process; For uncertain vocabulary after above are determined in the process of teaching timely .

2) Terminologies interpretation

Terminologies were interpreted as literal translation, adding free translation to explain. The part beside terminologies was interpreted mainly in free translation. By referring to the books of "Chinese Sign Language", "Science Sign Language", "Computer Professional Sign Language sign language", the interpreter determine the interpretation of terminologies in the PPT. In class, if the students were in doubt with the signs of terminologies, the interpreter would accept the opinions of the students, and modify it. If not exist in the above three books , the terms were interpreted according to interpretation experience and professional background of the interpreter firstly, and then the meaning of the terms were explained to the students, to discuss the sign of the terms sign language with the students, determining the signs ultimately. The most important thing of terminology interpretation is to keep consistent, so that the students will have less difficulties bringing by using different signs of one term in the learning.

3) Sentences interpretation

According to daily communication habits of the deaf students, the interpreter integrated sentence parts to facilitate the students to understand. Fexample:

A．软件过程是指开发软件产品的一组活动及其结果

软件过程/是/组/活动/结果/开发软件产品/中。

B．计算机辅助软件工程是一组工具和方法的集合，用于辅助软件开发、维护、管理过程中的各项活动，促进软件过程的工程化和自动化。

计算机辅助软件工程/是/集合，/工具/方法，帮助/开发/维护/管理/软件等，让/软件过程/工程化/自动化。

4.2 Cooperate with the teacher

The interpreter would communicate teaching content with the part-time teacher before class, informing the teacher characteristics and requirements of the deaf students , and letting the teacher adjust teaching difficulty and schedule timely.

4.3 The deaf students professional knowledge deficiency

In the process of interpretation, the content that the students should master but not, would be interpreted by the interpreter and then be explain based on the knowledge the students had learned. Such as the word of "compile", which the students are unable to contact with the learned knowledge of program design, the interpreter translated it and then explained the meaning of compile as "translate the code to the binary code that the computer can read, the procedure after accomplish code and before execute the program to get result." The deaf students can basically understand by the mean; For the simple program in PPT, the student was selected to explain, stimulating other students' memory, and the interpreter contact explaining with teaching content, ensuring the students understand teaching content; For the series before and after the curriculum knowledge in the teaching process; When the students can not associate the new content with learned content, the interpreter will remind the students of the origin meaning of the content, such as when writing code course, the teacher mention the concept of "spiral model", the interpreter will use the word of "previously learned, a design method of the software, the spiral " to remind the students.

5. ROLE OF SIGN LANGUAGE INTERPRETER

According to professional knowledge, sign language interpreter can understand and simplify the content by combining understanding and sign language habits of the deaf students, and select easy way to interpret for deaf students to understand; When the deaf students ask questions, the interpreter can answer questions timely based on her own knowledge, saving the time of reporting to teacher and then reporting to the students, to improve the class efficiency. When the students practice in team work, the interpreter can serve as a teaching assistant, guiding students to work, and care to each student, improving their teamwork skill.

6. CASE ACHIEVEMENT ANALYSIS

As representative of the students, the students of the student A and B were as example to analyze their achievement.

Student A: girl, do not sign, can not hear the teacher talk in class, the way of learning is to see PPT and after the class she learn by herself, good grades.

Student B: boy, can sign, can hear the teacher talk in class, class learning of watching the interpreter's sign language and after class learning, good grades.

6.1 Content to analysis

The final assignment is to use software engineering method to create a personal website, requiring to submit requirement document. The works of A and B are their own group requirement document. The function of sign language interpretation is analyzed by checking three knowledge points "requirement document", "case diagram", "class diagram" in the document.

6.2 Knowledge point analysis

The above three points are in different sections and different difficulties, and the interpreter translate them in different strength

Table 1 Analysis of three knowledge points

Knowledge point	section	difficulty	Teaching strength	Translate strength
requirement document	Fourth chapter	high, high flexibility, low logic	emphasis	Teaching more, More literal interpretation(80%)
case diagram	fifth chapter	Middle , strong logic	emphasis	Teaching more, more free interpretation(40%), more explain
class diagram	fifth chapter	Middle , strong logic	emphasis	Teaching more, more free interpretation(40%), more explain

6.3 Grades

The scores of student A and B about the above three knowledge points is following (out of 10).

Table 2 the student A and B student scoring

	requirement document			case diagram		class diagram	
	Column design	Page design	Jump Graph	specific ation	correct	specific ation	correct
A	9	9	8	6	7	6	6
B	8	9	9	8	9	8	8

6.4 Result

The result is from comparative analysis of final grade of two deaf students A, B . Free translation part of above three by interpreter is 20%/40%/40%, free translation is added understanding and repeat of interpreter. Their scores of three points are respectively 8.7 / 8.7,6.5 / 8.5, 6 / 8. we can see that on the points of more free translation, B is significantly better than A.

7. CONCLUSION

In the class of the deaf, the sign language interpreter with professional background can assist teachers to teach and counsel the deaf students as teaching assistant; They can add their own understanding to the translation for the students easy to understand professional knowledge; At the same time, they also can answer questions from students timely, improving teaching efficiency. Therefore, in the class of the deaf, with professional background, sign language interpreter can improve the quality of teaching greatly, and the deaf students can master the professional knowledge more quickly .

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