

Study on the Integration of Professional Ethics in Medical Interpretation Course Based on Situational Simulation Teaching Method and Virtual Reality Technology

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Abstract: Based on the theory of situational simulation, the article explores the approach to building the medical interpretation course from three aspects, which are the objective, design, and teaching model. The course aims to cultivate high-quality medical interpreting talents and enhance students' practical interpretation skills, as well as to integrate professional ethics into teaching. Thus, it is necessary for lecturers to change their teaching philosophy, apply information technology, and improve teaching design. Through rich medical interpretation course, lecturers can promote the integration of professional ethics in medical interpretation.

Keywords: Situational simulation; Medical interpretation; Professional ethics education

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1. Introduction

To promote the reform of professional ethics education, it is necessary to carry out students-oriented education and provide a humanistic education, leading them to develop professional qualities. By innovating the medical interpretation training model, lecturers should abandon outdated ideas of focusing on knowledge and skills rather than cultivating professional ethics. Under the situational simulation teaching method, students have the opportunity to experience the roles of a doctor, patient, and medical interpreter. This approach generates significant interest through role-playing, fostering empathy and a deeper understanding of each perspective.

Situational simulation teaching method can be carried out through classroom lectures. More importantly, lecturers should provide opportunities for students to cultivate the qualities of a medical interpreter such as strong psychology, a sense of responsibility, respect, and confidence^[1]. Therefore, situational simulation teaching can provide students with practical experience by inviting them to engage in mock medical

consultation and international medical conferences and lectures. In this way, the medical interpreter's professional ethics such as calmness, privacy priority, cooperation, and good communication skills, can be integrated into the practice.

2. Situational simulation teaching model

Situational simulation teaching combines the theory of constructivism, pragmatism education, and consideration model, which support the idea that students can efficiently gain knowledge in simulated situations and real-world experience. The authentic experience will improve students' imagination and understanding so they can comprehend the verbal and non-verbal signals in society. Unlike learning knowledge from books, authentic social activities can create an actual environment suitable for students to use the language. Through role-playing, they can get unconscious knowledge acquisition from participating in specific scenarios and actively accumulate varied experiences, thus helping them to understand their own strengths and weaknesses, which can lay the foundation for planned and conscious learning in the future ^[2].

The Medical Interpretation course aims at cultivating applied and well-qualified medical interpreters, which is suitable for students with basic interpreting skills and medical knowledge. The teaching content includes medical vocabulary, background, interpreting skills, and practice. The teachers can divide interpretation topics for practice according to the current medical system, such as internal medicine, surgery, obstetrics and gynecology, ophthalmology, pediatrics, traditional Chinese medicine, and physiotherapy. However, the traditional teacher-centered teaching model that lacks interpretation practice may not fit such a highly specialistic course, failing to promote students' interest and ignite their enthusiasm for learning, thus making it difficult to foster professional talents.

To integrate interpretation skills with professional ethics education in teaching, lecturers need to summarize the professional ethics of a medical interpreter. Since clients who demand interpreting services are patients with distinct cultural and identity backgrounds who speak different languages, the interpreter should play multiple roles including "professional interpreter," "cooperator with the doctor," and "temporary relative or friend." Therefore, the interpreter should provide the clients with technical guidance and emotional values, showing good qualities such as responsibility, optimism, law-abidingness, and respect for privacy ^[3]. However, when the interpreter is faced with the ethical problems of patients being unwilling to disclose important diagnostic information to the doctor or hiding personal medical history from the family, the medical interpreter can play the role of a "psychologist," encouraging the patient to cooperate with the doctor and explaining the confidentiality agreement between the patient and the doctors in addressing the patient's concern.

In addition, a good medical interpreter should also be an excellent communicator and coordinator who can flexibly respond to emergent problems, for example, when a patient with mental illness falls into emotional fluctuation, the interpreter should keep a calm and rational mind to actively communicate with the doctor, the patient, and the families to successfully complete the interpreting task.

In this way, situational simulation teaching could help students understand professional roles in a direct and vivid way. The following parts will explain the integration of interpretation skills with professional ethics education from three aspects.

2.1. Clear and direct teaching objectives

The teaching goals of the course should be clear and direct. Teaching objective can cover three aspects including quality, knowledge, and competency, while medical interpreter's professional ethics should be included into quality education. Since the course consists of 32 periods divided into 8 units with 4 periods for

each unit, lecturers can select the interpretation topics based on departments of current medical system, such as cardiovascular surgery, neurology, ophthalmology, oncology, and obstetrics and gynecology. The selection of those topics aims to meet the social demand for comprehensive medical interpreting talents, thus realizing the goal of cultivating graduates with professional ethics.

In situational simulation teaching, three or more students can respectively play the role of a doctor, patient, interpreter, and even patient’s family members. They can reasonably and imaginatively rewrite the script according to the plot provided by lecturers. International medical students can also join the situational simulation practice to create authenticity and interest. The integration of teaching content, interpreting skills, and professional ethics is shown in **Table 1**. For example, in Unit 6 “Traditional Chinese Medicine and Physiotherapy”, the interpreter might face the difficulties of translating classical Chinese or four-character Chinese idioms.

As a facilitator, lecturers should guide students to adopt proper interpreting methods to solve cultural differences, introduce basic theory of Chinese Medicine as background knowledge, and lead them to demonstrate cultural confidence through body language during the situational simulation practice. The scenes created for the interpretation practice could be Traditional Chinese Medicine (TCM) inquiries, promotional meetings for Chinese medicine, or interviews with famous TCM doctors where the interpreter can spread great ancient Chinese culture and wisdom from Chinese medicine.

Table 1. The integration of teaching content, interpreting skills, and professional ethics

| Teaching content | Interpreting skills | Professional ethics |
|---------------------------|--------------------------|------------------------------|
| Internal medicine | Listening and analyzing | Honesty & responsibility |
| Surgery | Thinking mode | Cooperation & calmness |
| Gynecology and obstetrics | Interpreting memory | Privacy respect & politeness |
| Pediatrics | Interpreting note-taking | Flexibility & optimism |
| Psychiatry | Syntactic transformation | Kindness & bravery |
| TCM physiotherapy | Cultural difference | Patriotism & confidence |

2.2. Elaborate teaching design

Other than that, elaborate teaching design should be constructed. Since the course is career-oriented, creating a student-centered atmosphere can stimulate their interest and gain experience in interpretation practice. Thus, the construction of teaching design can be divided into three parts: pre-interpreting, during interpreting, and post-interpreting, which is fit for the four-step preparation of the professional interpreter. Before class, students should be instructed to read parallel texts like Chinese and English articles or books related to the interpretation topics and to watch relevant medical videos to gain background knowledge. These efforts can help students learn to sort and record medical terms for memory and learning.

Subsequently, students should be prepared for the practice by doing some topic-related translation and sight interpreting exercises to strengthen their understanding and responsiveness, which benefit students by reducing their anxiety and training their interpretation skills. Physical and mental preparation is also necessary because interpreting is a comprehensive reflection of complex cognitive processes involving perception formation, attention allocation, information processing, anxiety reduction, and problem solving^[4]. Thus, learning to control their nervousness and making thorough preparations are helpful for the interpreter to work effectively with a positive mental state.

During the class, lecturers can follow the following five processes to conduct the interpretation practice:

introduction, pre-testing, practice, post-testing, and summary. In the first section, lecturers can play an English medical video and interact with students through discussion on the video to arouse students' interest and test their listening skill, which serves as an effective method to introduce the interpretation topic and evaluate their preparation. English videos related to medical interpretation topics like "thoracalgia," "stomachache," and "heart disease" can be chosen to test and activate students' context-dependent memory and knowledge. During the "pre-testing," lecturers can increase the difficulty level by playing English videos introducing the symptoms and treatment of a disease such as "heart disease" and asking students to retell the information in the source language. Then, the interpretation practice can be carried out from gist interpreting and paragraph interpreting to situational simulation interpreting.

Gist interpreting requires students to interpret the main content of the video, while paragraph interpreting is consecutive interpreting from Chinese to English and English to Chinese, and the situational simulation interpreting would be carried out in the form of role play. For example, for the topic of "angina," an English video related to "angina" produced by the British Heart Foundation is played and students are asked to perform gist interpreting followed by paragraph interpreting. This practice would lay a solid foundation on applying medical terms, understanding background information, and practicing the interpretation skill.

Situational simulation interpreting, which is the most challenging and interesting part, involves student-centered practice that requires three of them to respectively play the role of a doctor, a patient, and an interpreter. "Patient" would describe his or her symptoms and illness duration, and the "doctor" would inquire about the patient's medical history and drug use and perform physical examination. During the practice, lecturers encourage the students to demonstrate their acting skills through emotions like anxiety, tension, and discomfort. In this way, the "interpreter" should attempt to use his or her body language to show positive qualities such as calmness, kindness and bravery, which can improve student's energy distribution and practice professional qualities^[5].

2.3. Blended learning mode

Blended learning can be adopted to make the course flexible, interesting, and useful. Such teaching mode conforms to the requirements of digital education era and combines the advantages of online and traditional teaching, which would attract more students to practice interpretation. The online medical interpretation course integrated with interpretation skills, medical knowledge, and professional ethics can promote students' comprehensive medical interpretation skills. Lecturers should utilize online platforms such as Massive Open Online Courses (MOOCs) and Chaoxing app to develop online resources for Medical Interpretation course by dividing topics into internal medicine, surgery, obstetrics and gynecology, neuropsychiatry, traditional Chinese medicine, physiotherapy, and pediatrics. These online learning platforms can help students to be better prepared using medical terms, parallel texts, and audio and videos related to the medical topics for self-interpreting and testing, so that they can independently reinforce the interpretation skills through practice.

2.4. Virtual reality (VR) technology

Virtual reality (VR) technology can be applied in the teaching. Lecturers can cooperate with VR company to create medical interpretation course to carry out virtual simulation practice. The application of VR interpretation practical platform can provide students with realistic medical interpretation scenes to make the learning more impressive and efficient. Based on the immersive, visualized, and scene-oriented characteristics of VR technology, the course aims to attract students to experience varied realistic medical scenes such as medical conferences, medical consultations, and interviews, thus satisfying students' curiosity of being a professional

interpreter and fostering their comprehensive skills.

By exploring the application of VR simulation in the teaching of Medical Interpretation course, lecturers can apply innovative ways of teaching and practice for interpretation major under the background of “New Liberal Arts,” which adheres to the idea of “VR technology empowers teachers and the research promotes the teaching.” The system will create “VR simulation medical conference,” “VR simulation remote consultation,” and “VR simulation medical lecture” for students. These efforts can transform lecturers from a traditional lecturer to a leader, organizer, and supervisor. By setting up modules of medical background knowledge, medical vocabulary, sentence interpreting, and passage interpreting in the system, students can gain access to VR simulation training of medical interpretation, which can cultivate comprehensive medical interpretation talents under the intelligent digital age.

Furthermore, students are encouraged to become a qualified medical interpreter through moral education and professional spirits ^[6]. The creative VR course with diversified medical interpretation topics can promote students’ motivation and help them gain practical experience. In fact, lecturers can solve the problem of “lacking of context” in interpretation teaching by inviting students to join the “real” interpretation practice through VR, thus helping students to gain more comprehensive understanding of the profession. Thus, the application of “VR + profession” artificial intelligence in medical interpretation course is considered as a creative teaching mode. At the same time, it is necessary to learn from successful cases such as the Virtual Simulation Interpretation and Language Practice Center established in colleges and universities in China, which focus on training all kinds of international talents with comprehensive skills.

Fortunately, VR technology can bring in great reforms for both lecturers and students in their role changes, teaching contents, and training method. The construction of VR language training center can provide students with simulated medical occasions suitable for interpretation practice, such as visiting the patients in the hospital, interviewing the medical expert in the meeting room, or making a medical-related speech in the public. Students can experience the complete interpretation process from pre-interpreting, during interpreting to post-interpreting online. With the immersive, realistic dialogue and interactive practice conducted by multi-perception VR technology, the course can help lecturers to follow the trend of VR digital learning by changing the dominant role in the classroom and allowing students to independently practice interpretation in order to foster solid professional skills, innovation ability, critical thinking, and modern and international outlook, thus creating a new program of medical interpretation talents training.

3. Professional ethics in medical interpretation course

To make professional ethics memorable and influential, lecturers should introduce real stories to students in class or on the platform ^[7]. Taking the story of Qian Fang as an example, she was an interpreter who accompanied World Health Organization medical experts on the visit to Wuhan in 2020 during the outbreak of COVID-19 and worked 20 hours consecutively, demonstrating the dedication and professional ethics of a brave, patriotic, and excellent interpreter. Real-life cases of moral qualities of an interpreter would help students to form right values and emphasize the importance of good physical and mental health for the interpretation practice.

Owing to the limited time in class, lecturers should encourage students to carry out situational simulation interpretation practice after class either individually or in groups. Students are encouraged to film their practice and upload them to the learning platform for the others to discuss on the interpreter’s performance. They can use the online platform like Tencent Conference or create VR interpreting practice system to carry out role-

play interpretation training, which is known as remote interpreting. The purpose is to help students to adapt to the flexible and diversified working forms of a professional interpreter. Subsequently, the students will obtain feedback on their performance in the situational simulation interpretation course from both the lecturer and “clients,” thus allowing improvement on his or her interpretation skills, medical knowledge, professional ethics, and teamwork. In fact, blended teaching combined with VR technology practical course can aid students in their preparation for the medical interpretation by using rich resources from the platform and develop a sense of cooperation and persistence for practice, thus changing their passive learning into active learning.

To underscore professional education from Medical Interpretation course, lecturers should combine the interpreter’s quality with medical ethics, integrating the doctor’s professional conduct into teaching goal, design, and mode. The practice of simulating medical interpretation carried out by lecturers or students will make a big difference on participants’ mind through lecturers’ emphasis on the professional ethics like cooperation, honesty, flexibility, and respect for privacy^[8]. Since the most fundamental requirement of a doctor is trying their best to relieve patients’ physical pain, a medical interpreter should attempt to connect the doctor and patient in a friendly and professional way. Through interpretation practice, the “student interpreter” may not only learn to make thorough preparation before interpreting, but also show their politeness and honesty from medical interpretation simulation, reflecting their compassion, responsibility, and dedication.

4. Conclusion

By adopting situational simulation teaching and blended teaching mode, lecturers could build an online learning platform of medical interpretation with the integration of medical ethics and professional spirits. To make the course more practical and interesting, the application of situational simulation teaching and VR technology can encourage more students to experience the interpreter’s psychological changes from anxiety, nervousness, and pleasure. Particularly when teaching medical interpretation course in medical school, lecturers should utilize useful and available materials including international medical resources from the affiliated hospital^[9]. With the development of technology and elaborate teaching from lecturers, medical interpretation course can be more practical and attractive.

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