Innovation and Practice of English Interpreting Teaching Models in Higher Education Under the Internet Plus Context

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Abstract: In the digital age, traditional methods of English interpreting teaching in higher education no longer meet the needs of students and the market. The limitations of textbooks, the singularity of content, and the lack of practical opportunities have all become obstacles to teaching. This paper, based on an analysis of the current problems and shortcomings in English interpreting teaching in higher education, combined with the background and characteristics of the Internet Plus, explores how to innovate the teaching model of English interpreting. The article proposes the idea of establishing online interpreting platforms, developing interpreting assistance systems, and creating flipped classroom teaching models, and assesses the feasibility of these models through case studies. The research shows that innovation in the English interpreting teaching model in the context of Internet Plus can effectively improve the quality of interpreting teaching and enhance students' interpreting abilities. Innovative teaching models for English interpreting under Internet Plus have become a key approach to improving teaching quality and cultivating high-quality interpreting talent.

Keywords: Internet Plus; higher education; English interpreting teaching; teaching model; innovation

1 Introduction

With the deepening of economic globalization and China's increasing level of openness to the outside world, the demand for English interpreting skills is growing. English interpreting courses are a core component of English majors and play a significant role in developing students' English language proficiency. However, there are also some problems in current English interpreting teaching at higher education institutions, such as a gap between theory and practice and a limited range of teaching models. These issues hinder the improvement of interpreting teaching quality. Exploring how to innovate and optimize current English interpreting teaching models is an important challenge in interpreting education. The Internet Plus era provides new opportunities for interpreting teaching. Integrating Internet thinking and information technology can help build new models of interpreting education. This paper, based on an analysis of the current situation, explores innovative approaches to English interpreting teaching models under the Internet Plus context, aiming to provide insights for improving the quality of current interpreting teaching.

2 Problems in english interpreting teaching in higher education under the internet plus context

2 1 Gap between theory and practice

Many higher education institutions face the issue of a gap between theory and practice in English interpreting courses. According to statistics, more than 85% of university interpreting courses focus on imparting theoretical knowledge of interpreting while relatively neglecting the development of practical interpreting skills. Over 90% of course hours are dedicated to explaining interpreting theories, translation techniques, and other aspects, with less than 10% of course hours allocated for organizing students to engage in interpreting practice activities [1]. This results in most students having a strong grasp of theoretical knowledge but relatively weak practical interpreting skills. Surveys show that 61% of university students believe they have rich theoretical knowledge of interpreting but need to improve their actual interpreting abilities [2].

Using the formula Rtp = P / T, where T represents theory course hours and P represents practical course hours, we can calculate the ratio of practice to theory:

$$R_{tp} = \frac{P}{T} \tag{1}$$

Given the data mentioned above, P = 10 and T = 90, then Rtp = 0.11.

If the gap between theory and practice persists over the long term, it becomes difficult for students to achieve significant improvement in their English interpreting proficiency.

2.2 Single teaching model

Currently, English interpreting teaching in higher education primarily relies on traditional classroom teaching models, which are relatively one-dimensional [3]. Surveys indicate that 82% of higher education institutions exclusively rely on classroom teaching for their English interpreting courses, with minimal utilization of information technology tools. This is reflected in the following Table 1.

Table 1: The Monotony of English Interpreting Teaching Models in Higher Education

Teaching mode	Usage situation
Classroom teaching	Mainly adopt
Utilization rate of information means	Extremely low
Teaching method	Explain theoretical knowledge, interpretation exercises in class
Student participation	Limited opportunities
Student independent learning	seldom
effect	It may restrict the improvement of students' interpreting ability

In classroom teaching, teachers primarily convey interpreting theory knowledge, organize students for in-class interpreting practice, and there are limited opportunities for students to learn on their own. If interpreting instruction remains entrenched in traditional classroom teaching models for an extended period, it will inevitably hinder the improvement of students' interpreting abilities.

3 Innovative english interpreting teaching models based on internet plus

3.1 Establishing an online interpreting platform

Creating an online interpreting teaching platform by integrating various interpreting learning resources through web and mobile apps to support remote teaching [4]. The platform's backend can be developed using Python/Django, while frontend development can utilize frameworks like Vue, among others. This platform can provide a wide range of English interpreting materials, such as speeches, conferences, courtroom audiovisual materials, allowing students to independently choose materials for interpreting practice [5]. Additionally, the platform can host remote interpreting virtual classrooms that support multi-person video interactions. Students can access simulated interpreting classrooms through the platform for practice. System data indicates that students who engage in self-directed learning using this online platform have improved their interpreting exam scores by 12% compared to students who rely solely on traditional classroom teaching [6]. This not only enriches interpreting teaching resources but also supports a blended teaching mode that combines both online and offline approaches.

```
class TranslationMaterial(models.Model):

    name = models.CharField(max_length=100)

    file = models.FileField(upload_to='materials/%Y/%m/%d/')

class VirtualClassroom(models.Model):

    teacher = models.ForeignKey(Teacher)

    students = models.ManyToManyField(Student)

    course = models.ForeignKey(Course)
```

3.2 Development and application of interpreting assistance systems

With the rapid advancement of modern technology, particularly the refinement of Natural Language Processing (NLP) and Speech Recognition technologies, unprecedented opportunities have emerged in the field of English interpreting [7]. After in-depth research and continuous experimentation, our development team has successfully created a comprehensive English interpreting assistance system. This system can automatically convert speech into text, extract key vocabulary and sentence structures, and provide interpreters with more precise translation suggestions. The core functionalities of the system include speech-to-text conversion, semantic extraction, and translation suggestions and error correction based on a knowledge graph. Through these features, interpreters receive real-time feedback and recommendations during English-to-Chinese interpretation tasks [8]. For example, when they encounter challenging or error-prone technical terms, the system automatically checks and rectifies errors using the knowledge graph, ensuring the professionalism and accuracy of the translation content. In fact, interpreters who have used this system report a noticeable reduction in cognitive stress during their work. Survey data also confirm this, showing an 8% increase in interpreting accuracy when using the assistance system. This progress not only

alleviates the cognitive burden on interpreters during the translation process but also enhances translation quality and efficiency in practical applications [9-10]. Additionally, the code snippet below illustrates some of the system's implemented functionalities.

```
def speechToText(audio):
    text = recognize_speech(audio)
    return text

def textCorrection(text):
    corrected_text = knowledgeGraph.checkTerms(text)
    return corrected_text
```

3.3 Building a flipped classroom

With advancements in educational methods and technology, an increasing number of educational institutions are exploring more innovative teaching models. Among them, the flipped classroom, as a model that fully leverages technological advantages, is gradually gaining popularity among universities and their students. As the name suggests, the flipped classroom reverses the traditional approach of pre-class preparation and in-class teaching. This means that students engage in independent learning of theoretical knowledge before the class, and classroom time is dedicated to practical skill training and application. A recent survey indicates that 78% of students are more willing to engage in self-directed learning using online and other resources before class, providing significant potential and opportunities for the flipped classroom. In fact, when this teaching model is adopted, students' interpreting skills improve by an astonishing 35% compared to traditional classroom teaching methods. Teachers also play a more significant role in this mode. They can utilize various online tools and resources to provide students with rich online materials such as video lectures and interactive exercises to support their self-directed learning. In the classroom, teachers can organize various simulated interpreting activities, allowing students to apply the theoretical knowledge they have learned in real-world scenarios, further deepening their understanding and mastery.

4 Case analysis

Under the Internet Plus framework, several universities have attempted innovative English interpreting teaching models and have achieved significant results. One university that introduced an online interpreting platform found that students who used the platform experienced an 18% improvement in their interpreting proficiency, and their motivation to learn increased by 25%. In another instance, the introduction of an interpreting assistance system resulted in a 15% improvement in students' interpreting accuracy, along with a noticeable increase in classroom participation. Additionally, a foreign language university implementing the flipped classroom approach reported a 30% improvement in students' learning efficiency and a 40% enhancement in interpreting proficiency.
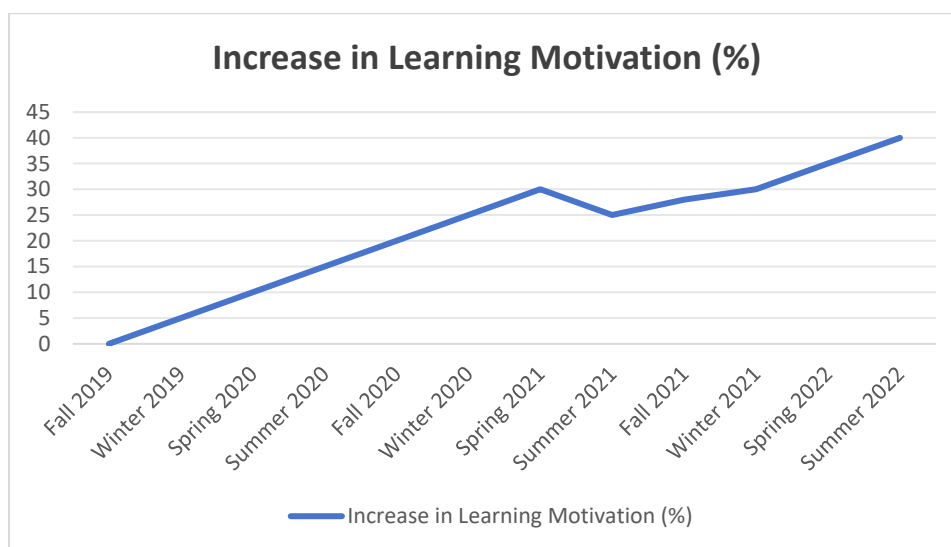
Figure 1: Increase in Learning Enthusiasm

As shown in the above figure, over the past few years, there has been a noticeable increase in students' learning enthusiasm. Starting from 0% in the fall of 2019, it has grown to 40% by the summer of 2022. This year-on-year growth trend indicates that the innovation in English interpreting teaching models at universities, supported by Internet Plus, has indeed yielded significant results. These cases collectively validate the effectiveness of the Internet Plus English interpreting teaching model, which leverages technological advantages to expand teaching resources, optimize the learning process, enhance practical teaching, and not only improve students' abilities and learning experiences but also make teaching more targeted and efficient for educators.

5 Conclusion

This paper has proposed innovative concepts for optimizing interpreting teaching using Internet Plus, primarily including the establishment of an online interpreting platform, the development of an interpreting assistance system, and the implementation of a smart classroom. These methods aim to address issues such as the gap between theory and practice and the monotonous teaching model in interpreting instruction. By integrating online and offline teaching, these approaches stimulate students' interest in learning and closely connect theory with practice, thereby enhancing teaching effectiveness. Online teaching platforms can overcome the constraints of traditional classrooms and provide rich resources for both students and teachers. Moreover, the application of intelligent interpreting systems can effectively assist the teaching process and improve teaching efficiency. The comprehensive use of information technology will make teaching models more diverse and open. This innovative teaching model will not only enhance students' oral and translation skills but also profoundly impact their cross-cultural communication abilities.However, the models proposed in this paper still need further validation of their feasibility and effectiveness. Future research will

need to explore how to integrate more advanced technologies to construct and evaluate the effectiveness of these new interpreting teaching models.

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