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Retraction

Retracted: Design and Research of Computer-Aided Translation Teaching Course under the Background of Embedded Microprocessor Wireless Communication

Scientific Programming

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

(1) Discrepancies in scope
(2) Discrepancies in the description of the research reported
(3) Discrepancies between the availability of data and the research described
(4) Inappropriate citations
(5) Incoherent, meaningless and/or irrelevant content included in the article
(6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

[1] X. Yuan and R. Zhu, "Design and Research of Computer-Aided Translation Teaching Course under the Background of Embedded Microprocessor Wireless Communication," *Scientific Programming*, vol. 2022, Article ID 8594212, 14 pages, 2022.

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Research Article

Design and Research of Computer-Aided Translation Teaching Course under the Background of Embedded Microprocessor Wireless Communication

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The background of wireless communication is the background of the current society. On this basis, the use of embedded microprocessors for computer-assisted translation teaching courses can well cultivate the practical abilities of college students and enable them to quickly integrate into the society. In the context of wireless communication, this article conducts the design and research of computer-assisted translation teaching courses based on embedded microprocessors, explores the use of high-tech system to train students in colleges and universities, and promotes the reform of college classrooms. This research is to use computers for assisted translation and embedded microprocessors for related calculations in translation teaching courses in colleges and universities, which can improve students' learning efficiency to a certain extent. The experimental results show that the concentration of students in computer-assisted teaching is 20% higher than that of students in traditional teaching, and other related data are more than 8% higher. The teaching of computer-assisted translation courses benefits students greatly.

1. Introduction

Under the influence of the globalization process, China, Russia, the United Kingdom, and other countries have realized economic, cultural, and technological exchanges at multiple levels, which has promoted the rapid development of various technologies such as Internet technology, computer technology, big data technology, and cloud computing technology. Under the current situation, the rapid development of informatization and digital technology has made information the key to the development of enterprises and social progress, and wireless communication technology has also been developed by leaps and bounds. It is no exaggeration to say that the development of wireless mobile communication technology is gradually changing the world. Radio was first used in navigation, using the Morse telegraph to send messages between ships and land. Today, radio is used in many forms, including wireless data networks, various mobile communications, and radio broadcasts. As the main training of talents in the current development of our country, the digital construction of classrooms in major colleges and universities and the application of wireless communication technology have become the new research directions of major colleges and universities. Computer-aided translation (CAT) refers to the process of using computer programs to translate natural language into other different natural languages. Wireless power transmission technology has been used in many fields, such as offshore wind power stations to transmit electricity to land and to areas with difficult natural conditions. This is different from automatic translation, which uses word processing software in a simple process, while computer-assisted translation can use database functions and translation programs to provide translators with suggestions and solutions, thereby saving time and money in efficient translation. This ensures the consistency of quality and translation style. CAT is now the main course for postgraduate translation in China. It was originally an elective course set up under the translation

course system according to the requirements of the academic postgraduate training program. As a new form of training professional translators, CAT has become an important link in the MTI education system.

The problems, which universities domestic and abroad have been trying to solve, are how to tap into the benefits of scientific research and teaching in colleges and universities in the context of wireless communication technology and how to provide computer-assisted translation courses that really use their advantages. At the beginning of the translation course, experts have fully realized the importance of relying on the strong foundation of domestic universities in the field of wireless communication and computer professional technology research and strive to integrate the two. Among all the courses of MTI, CAT is relatively more important, a door of operability. Because, on the one hand, it has powerful functions and can take advantage of professional English translation and auxiliary software to quickly process a large number of translated texts and provide professional and accurate translation services for English majors. On the other hand, it can also allow students to gradually participate in project work through project simulation training in the classroom under the guidance of professional and technical personnel, ensuring that students can understand and be familiar with the project process and work. Responsibility in the training process in colleges and universities is to lay the foundation for finding suitable jobs in the future and to be useful senior technical and integrated talents with translation skills.

With the advent of the Internet age, major colleges and universities now have higher requirements for the quality of classroom teaching, and they are also considering the application of various advanced technologies to college classroom education. The first thing to do is to apply computer-assisted teaching courses. Classroom, based on this intelligent teaching, has developed. The intelligent teaching tool Rain Classroom provides new research ideas and directions for education reform. Li Da-Hong et al. analyzed the characteristics of Rain Classroom, studied the problems in flipped classroom teaching, and designed a new type of flipped classroom based on Rain Classroom. Teaching mode: The results show that the students in the Rain Classroom learn more than the traditional teaching methods, and the class also improves the teamwork ability [1]. Based on the teaching innovation of computer-aided environmental art design major, Li has better researched various professional directions. The software knowledge that students need to design professional courses is constantly shrinking. In order to allow students to master and use a variety of design software in a short time, Li Y and others build a modular teaching model of environmental art design. Design software promotes designers' rapid and true performance and plays an important role in the process [2]. Zhang explained the application status of computer-aided design in modern clothing design teaching, using typical types of clothing products to use enterprises as the carrier of teaching content, using enterprise actual tasks as classroom teaching methods, and attaching importance to the consistency of student learning and practical work. Students practice teaching and explore the requirements of classroom and enterprise integration technology innovation [3]. Su et al. focused on the construction of a computer-assisted intelligent tutoring system based on a new teaching model and its impact on teachers' sense of self-efficacy in teaching. Based on the actual needs of the ICAI system, the theoretical basis and development principles of the intelligent tutoring system are explained, the system construction of the student model and the teacher model are studied, and the realization of the intelligent tutoring system is analyzed [4]. In view of the shortcomings in the traditional computer-assisted teaching process and combined with the latest development of computer technology, Ma and Miao proposed a computer-assisted teaching application system. The system can take advantage of the characteristics of the physical education system through the latest computer and intelligent technology, and its use will bring greater convenience and better teaching to physical education [5]. Based on the concept of ecological teaching, Zhang analyzed the parameters of computer technology in the theoretical model and the ecological teaching system and designed the ecological framework of the role of computer-assisted technology in college English teaching and the theoretical evaluation model of ecological teaching effects. A good learning environment for students with the concept of ecological teaching is created, and students' cross-cultural communication skills and professional English ability are cultivated [6]. Du analyzed the application optimization and teaching innovation of computer-aided design in gardening courses. Before learning computer-assisted courses, we should reasonably set up landscape professional courses, further strengthen the construction of professional basic courses, improve students' professional skills, and enable students to fully grasp the standards of garden planning and design [7]. However, in the research of the abovementioned related experts and scholars, the computer-assisted translation teaching course is not based on the current wireless communication background. Although it has been improved to a large extent compared with the traditional learning method, it is not without closely following the development of the times, there are also certain flaws in theory, which will not apply with the changes in the times.

Based on the consideration of traditional translation teaching courses, this article is based on the embedded microprocessor under wireless communication technology for computer-assisted translation classroom teaching. Students should be trained to be proficient in some basic skills, to be able to proficiently operate the translation-related tasks involved in the software provided by CAT software suppliers, to have a comprehensive understanding of the basic usage of CAT, to further master the use of at least one internationally accepted machine translation tool, and to be clear with the specific working mechanism of CAT and machine translation. Let students understand the principles of computer terminology management, combined with the basic technologies of wireless communication technology, and learn and use computer hardware systems under embedded microprocessors, which can effectively combine

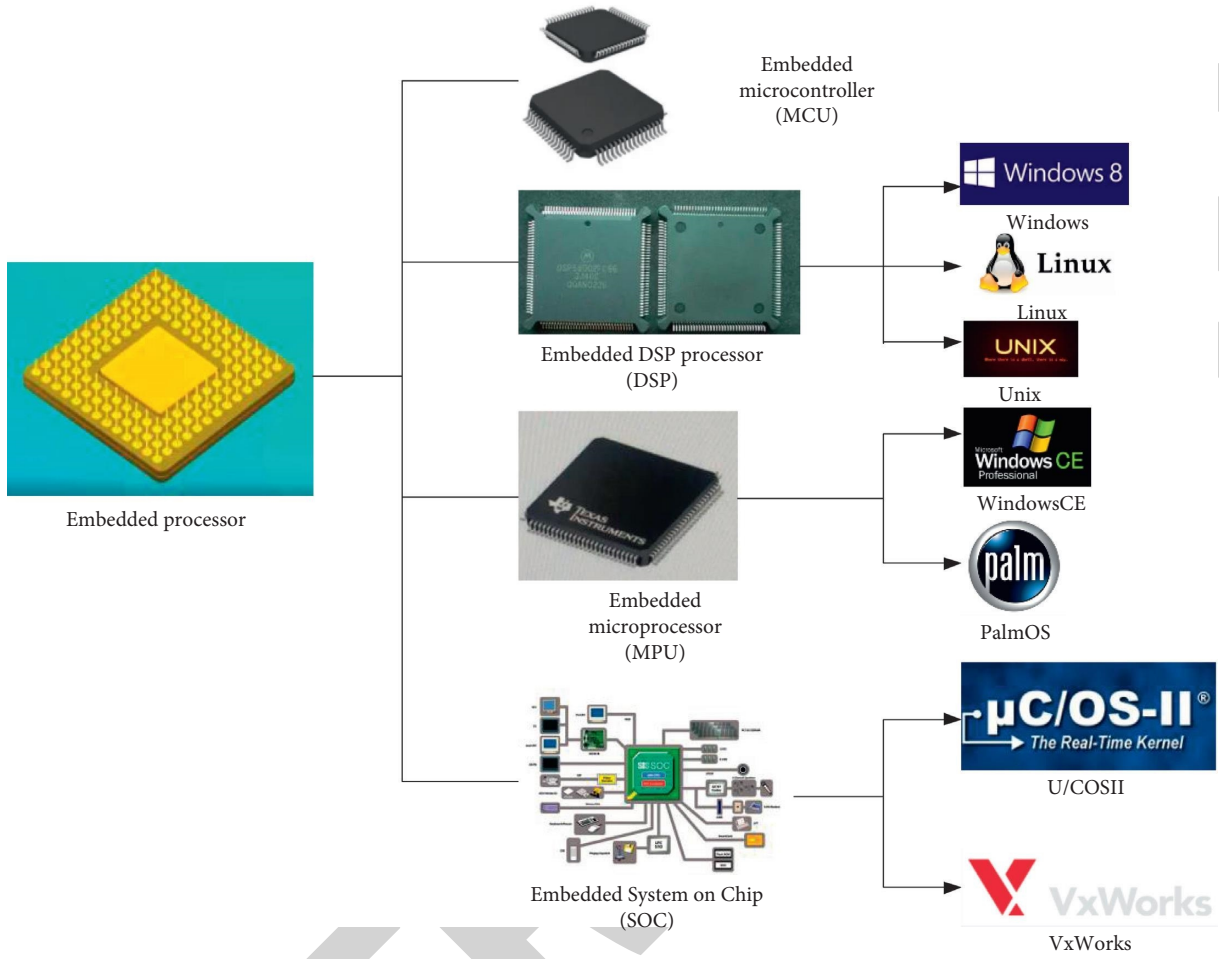

Figure 1: Microprocessor system structure and embedded system design.

these technologies and apply them in the design of daily translation courses.

2. Computer-Aided Research in the Context of Wireless Communication with Embedded Microprocessors

2.1. Embedded Microprocessor. The core of the embedded system is the embedded processor, which is a hardware unit including control and auxiliary system operation [8]. The scope is extremely wide, from the original 4 bit processor, the 8 bit single-chip microcomputer that is still in large-scale application to the 32 bit and 64 bit embedded CPU that is widely used now. Embedded processors include embedded microcontroller (MCU), embedded DSP processor (DSP), embedded microprocessor (MPU), and embedded system on chip (SOC), as shown in Figure 1 is the structure of the microprocessor system and embedded system design [9]. The biggest difference between these embedded microprocessors is the speed and real-time performance of digital signal processing operations. Since the advent of microprocessors, the development of embedded systems has been changing with each passing day. In the entire embedded system, the core is undoubtedly the embedded processor, which is related to the performance of the entire system [10]. The embedded microprocessors that are most popular to date will still be respected in the future for a long time.

Embedded microprocessors are mainly evolved from the core CPU in general-purpose computers [11]. Its characteristic is that it has a 32 bit or more processor, with excellent performance, but with it is the high price [12]. Microprocessor refers to the central processing unit (CPU) composed of one or a few large-scale integrated circuits. The CPU is a large-scale integrated circuit. However, unlike traditional computer processors, in actual embedded applications, only functional hardware closely related to embedded applications is retained, and other redundant functional parts are removed, so that embedded applications can be realized with the lowest power consumption and resources, the special requirements [13]. The core of the hardware layer of an embedded system is an embedded microprocessor. The biggest difference between an embedded microprocessor and a general-purpose CPU is that most of the embedded microprocessors work in systems specially designed for specific user groups. The completed tasks are integrated in the chip, which is conducive to the design of embedded systems tend to be miniaturized, while also having high efficiency and reliability [14]. Figure 2 shows an overview

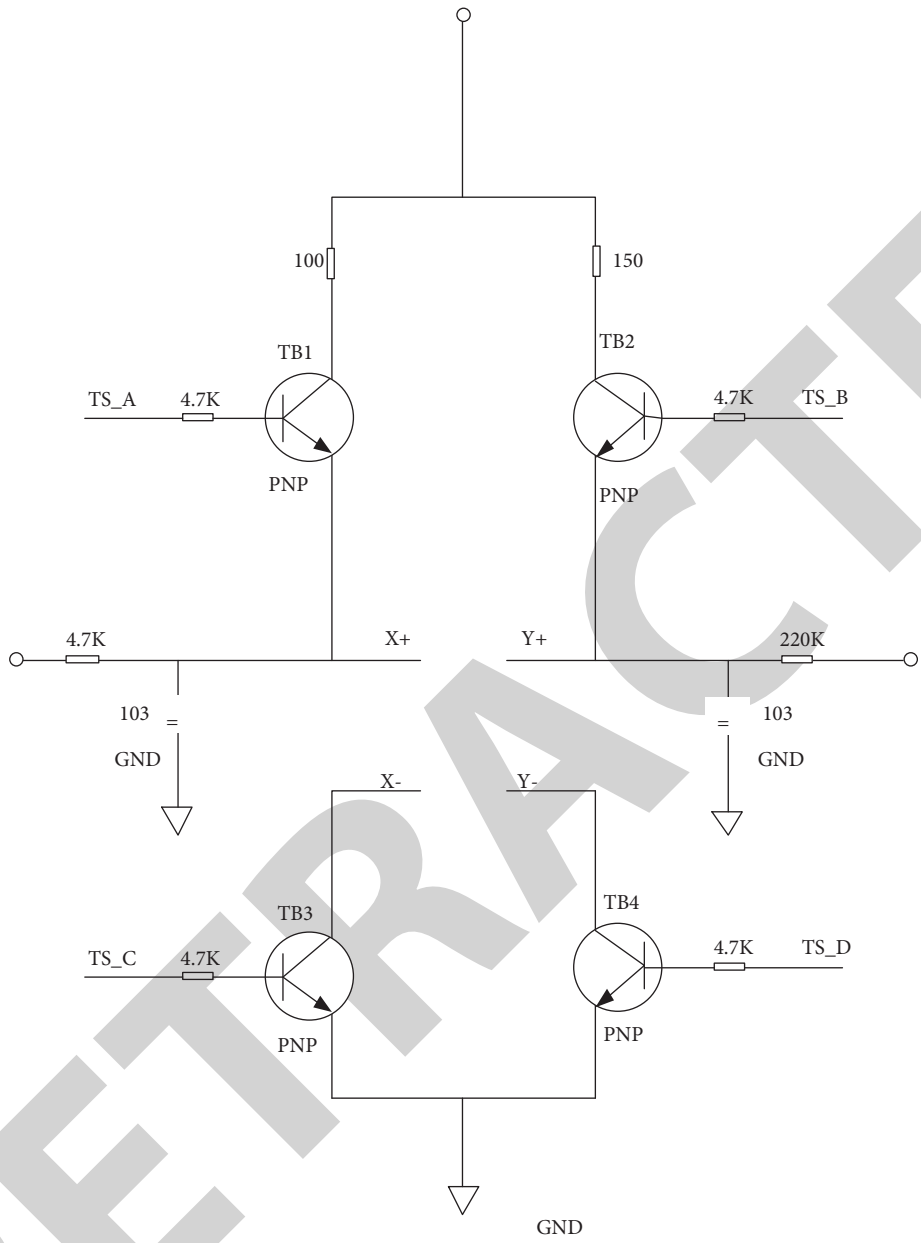

Figure 2: Overview of an embedded microprocessor.

diagram of an embedded microprocessor, which combines many functional blocks and integrates many functions on a small chip, which is a manifestation of the current technological advancement [15].

In the late 1970s, embedded microprocessors were evolved and they underwent four major development stages, namely SCM, MCU, networking, and software hardening [16]. The design of the embedded microprocessor is similar to the microprocessor design of the ordinary desktop computer, but the working stability is higher, the power consumption is lower, and the adaptability to the environment (such as temperature, humidity, electromagnetic field, vibration, etc.) is strong, smaller in size, and has more integrated functions [17]. In the field of desktop computers, the main indicator when comparing processors is computing speed. From a 386 computer at 33 MHz to a Pentium 4 processor at 3 GHz, the increase in speed is the change that users are most concerned about. The response speed of embedded microprocessors in different environments is not the same, and the internal processing system will have subtle changes. The choice of the embedded processor must be based on the design requirements, in the performance, power consumption, function, size and packaging form, SoC level, cost, commercial considerations, and many other factors to compromise [18].

2.2. Wireless Communication Technology. Wireless communication refers to the long-distance transmission

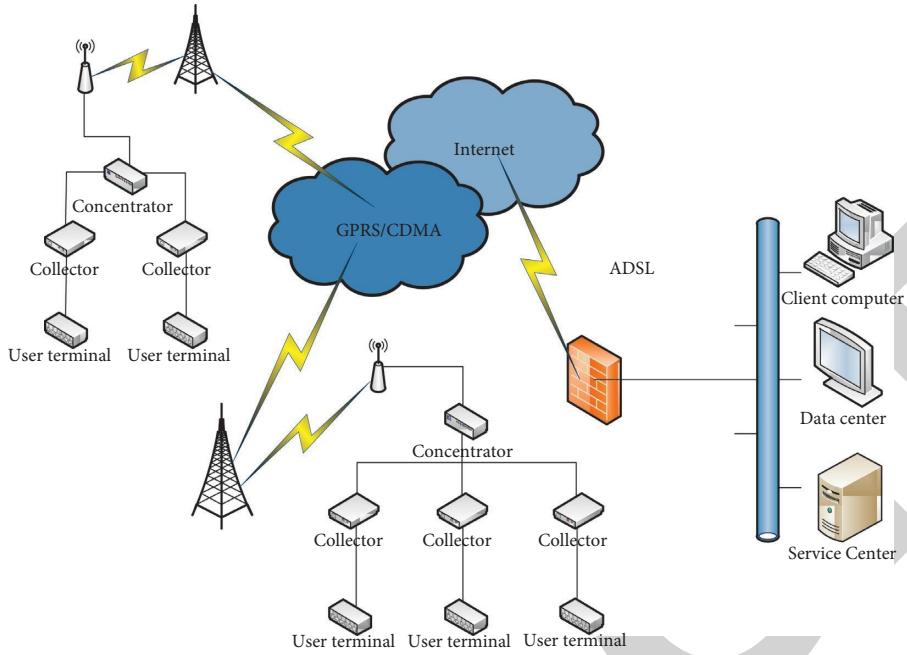

Figure 3: Transmission route map of wireless communication technology.

communication between multiple nodes without propagation through conductors or cables. Wireless communication can be carried out by radio as shown in Figure 3. Wireless communication includes a variety of fixed, mobile, and portable applications, such as two-way radios, mobile phones, personal digital assistants, and wireless networks [19]. Other examples of radio wireless communication include GPS, garage door remotes, and wireless mice. Most wireless communication technologies use radio, including Wi-Fi, which is only a few meters away, and deep space networks that communicate with Voyager 1 and have a distance of more than millions of kilometers. The difference between other electromagnetic wave wireless technology and wireless communication technology lies in whether the quality of information transmission can be guaranteed and the speed will be faster. However, some wireless communication technologies do not use radio, but use other electromagnetic wave wireless technologies, such as light, magnetic field, and electric field [20]. Nowadays, wireless communication technology has been well developed and is widely used in all walks of life. It is a technology that is widely used in industries and is also one of the foundations of current 5G, Internet of Things, and other technologies [21].

The CDMA communication system is one of the latest technologies in the context of wireless communication. It is widely used in all walks of life. It can achieve accurate and reliable wireless communication, can achieve spread-spectrum code capture (initial synchronization), and it can also achieve synchronous tracking of coding sequence (precise synchronization) [22]. CDMA is an advanced wireless spread spectrum communication technology used in digital cellular mobile communication. It can meet the demand of operators for large capacity, low cost, and high-quality mobile communication system in recent years. According to the phase difference between different information, the control signal can reduce the phase difference, and the phase of the control local sequence is consistent with the phase sequence at the time of transmission. The phase discriminator that can achieve this function has an S-shaped curve, which is realized by its own correlation characteristics [23].

Suppose the characteristic of $1/2T_C$ phase discriminating curve is $D_{T_C/2}(\tau)$, and the characteristic of T_C phase discriminating curve is $D_{T_C}(\tau)$, then

$$D_{T_C/2}(\tau) = R_{PN}(\tau - 1/2T_C) - R_{PN}\left(\tau + \frac{1}{2}T_C\right),$$
$$D_{T_C}(\tau) = R_{PN}(\tau - T_C) - R_{PN}(\tau + T_C). \tag{1}$$

Using the code sequence synchronization tracking method formed by the phase discrimination characteristics of (1) and (2), the transmitted information can be controlled in real time in the wireless communication technology.

$$W_E(t) = \sqrt{2P}PN(t - \tau_S).PN(t - T_C - \hat{\tau}_S) + n(t).PN(t - T_C - \hat{\tau}_S),$$
$$W_L(t) = \sqrt{2P}PN(t - \tau_S).PN(t + T_C - \hat{\tau}_S) + n(t).PN(t + T_C - \hat{\tau}_S),$$
$$E(t) = W_E(t) - W_L(t). \tag{2}$$

Bring the above (3) and (4) into (5)

$$E(t) = A\sqrt{2P}\triangle_{PN}(t - \hat{\tau}_S)PN(t - \hat{\tau}_S) + n(t)A\triangle_{PN}(t - \hat{\tau}_S),$$
$$\triangle_{PN}(t - \hat{\tau}_S) = PN(\triangle_{PN}(t - T_C - \hat{\tau}_S) - PN(t + T_C - \hat{\tau}_S). \tag{3}$$

When the related code sequence is synchronized, the code sequence related to the baseband has a very important role in synchronizing the tracking loop, and the phase detector used in the baseband tracking loop is a bit different from the previous one.

$$E(t) = A\sqrt{2P}\triangle_{PN}(t-\widehat{\tau_S})PN(t-\widehat{\tau_S}),$$
$$\triangle_{PN}(t-\widehat{\tau_S}) = PN\left(\triangle_{PN}\left(t-\frac{T_C}{2}-\widehat{\tau_S}\right)-PN\left(t+\frac{T_C}{2}-\widehat{\tau_S}\right)\right). \tag{4}$$

According to the processing method for unlocking the buckle, the first item in $E(t)$ can be divided into average component and variable component and is expressed as follows:

$$\triangle_{PN}(t-\widehat{\tau_S})PN(t-\widehat{\tau_S}) = E[\triangle_{PN}(t-\widehat{\tau_S})PN(t-\widehat{\tau_S}) + n_s(t,\tau_e), \tag{5}$$

where

$$\tau_e = \tau_s - \widehat{\tau_S},$$
$$n_s(t,\tau_e) = \triangle_{PN}(t-\widehat{\tau_S})PN(t-\widehat{\tau_S}) - D_{T_C/2}(\tau_e), \tag{6}$$

where PN(t), $D_{T_C/2}(\tau_e)$, and $n_s(t,\tau_e)$ are all wireless communication signals with a period of T.

The second term of $E(t)$ is:

$$n_n(t) = n(t)\triangle_{PN}(t-\widehat{\tau_S})). \tag{7}$$

The related function is as follows:

$$R_{n_n}(\tau) = E(n_n(t)n_n(t-\tau)). \tag{8}$$

Simplifying $R_{n_n}(\tau)$ can get the following simplified formula:

$$R_{n_n}(\tau) = 2\frac{N+1}{N}.\frac{N_0}{2}.\sigma(\tau) \xrightarrow{F} T\,S_{n_n}(f). \tag{9}$$

In summary, the error output result of the baseband correlation synchronization tracking loop in the coding sequence of wireless communication technology is as follows:

$$E(t) = A\sqrt{2P}\left[D_{T_C/2}(\tau_e) + n_s(t,\tau_e) + \frac{1}{\sqrt{2P}}n_n(t)\right]. \tag{10}$$

This error signal passes through the loop low-pass filter ($F(P)$), and when it acts on the VCO, an estimate of the phase difference between the receiving and sending code sequences will be generated, and the phase of the local code sequence can be adjusted to a certain extent to implement synchronization tracking. The normalized phase is accurately estimated as follows:

$$\frac{\widehat{\tau_S}}{T_C} = K_V E(t)\left(\frac{F(P)}{P}\right), \tag{11}$$

where K_V is the voltage control gain of the VCO and $F(P)$ is the transfer function of the loop LPF. For synchronous tracking in wireless communication technology, it has the following technical characteristics:

$$\frac{\widehat{\tau_S}}{T_C} = H(P)\left[\frac{\tau_S}{T_C} + \frac{N}{2(N+1)}\left(n_s(t,\tau_e) + \frac{1}{\sqrt{2P}}n_n(t)\right)\right],$$
$$H(P) = \frac{KF(P)/P}{1+KF(P)/P},$$
$$K = 2A\sqrt{2P}K_V\frac{N+1}{N}. \tag{12}$$

Wireless communication technology is the current trend in the times. A technological innovation under the current wireless communication background can be carried out when there is good environment and equipment. Now wireless communication technology mostly pursues high-speed data transmission and high-definition image transmission. This can meet the needs of different users. In addition, wireless communication technology has many advantages, such as high speed, flexibility, diversity, economy, etc. Wireless communication technology is characterised by high speed communication, and it is considered to be fast when compared to current traditional communication methods; wireless communication can help users to communicate anytime and anywhere and can quickly browse the web, play games, etc., which effectively guarantees the smoothness of data transmission and the clarity of images; diversity is mainly for value-added services. Compared with the current communication technology, the core technology of wireless communication technology is different in nature. It adopts orthogonal frequency multiplexing technology, which can provide diversified value-added services such as digital video broadcasting and digital audio broadcasting. Because of its own flexibility, the deployment process is simpler than traditional communication systems, and it can also be set up on different basic networks, so the cost is relatively low, even lower than the current system [24].

2.3. Computer-Aided Teaching Research. Computer-assisted teaching is a very popular new teaching system, where it introduces computer technology into teaching to provide teachers with a new teaching aid tool and at the same time provide students with a new learning mode. Because computer teaching cites big data, Internet, radio communication, and other technologies, it is carried out through a series of human-computer interaction activities, with interactive and individual teaching characteristics [25, 26]. Interaction refers to the communication between students and teachers, while personality refers to the characteristics of each student. There should be both commonness and individuality in flipped classroom. Interactivity can realize man-machine dialogue, feed back students' needs to the computer, and the computer will feed back the collected feedback to the students through data analysis, and individuality is the biggest advantage of computer-assisted teaching. In the context of wireless communication, the study of computer technology-assisted translation teaching courses embodies the

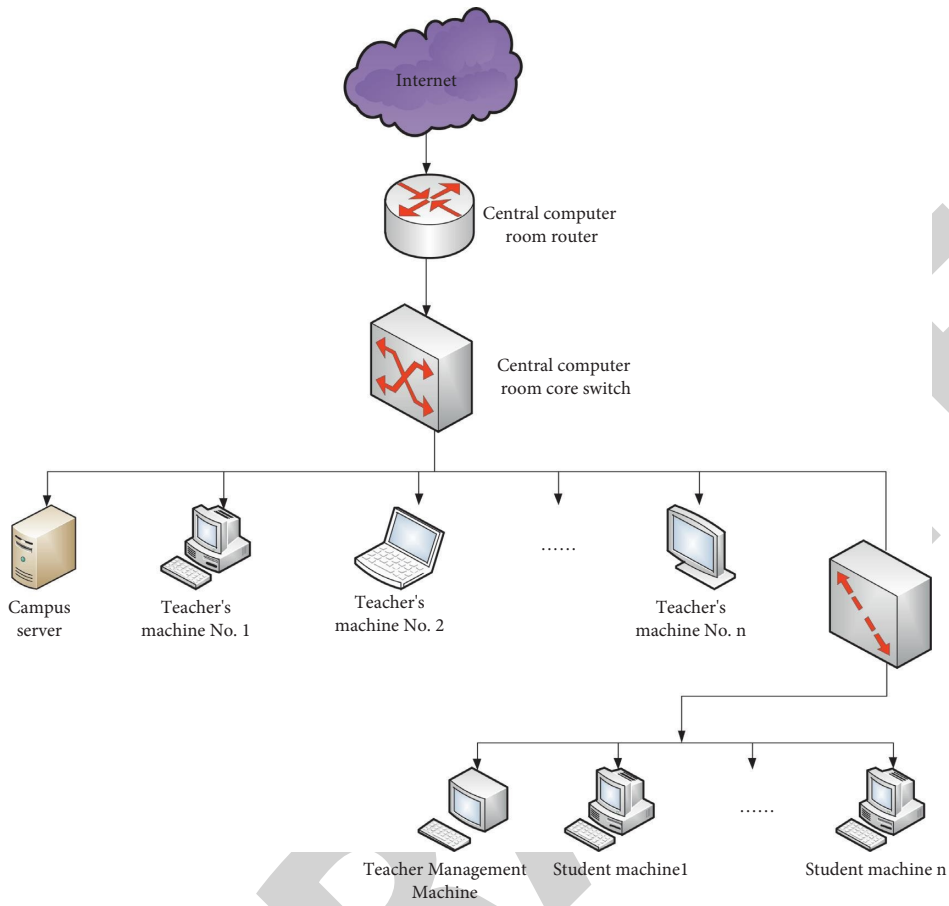

Figure 4: Schematic diagram of computer-assisted teaching.

characteristics of powerful computer functions, fast running speed, and multiple resources. Combined with the long-distance transmission functions of wireless communication technology, it can be well applied in translation teaching, greatly improve the learning efficiency of students. Figure 4 shows a specific schematic diagram of computer-assisted teaching [27–29].

3. Embedded Microprocessor and Wireless Communication Are Used for Computer-Assisted Teaching Experiment

3.1. Embedded Operating Logic of the Computer Hardware Experiment Microprocessor. Nowadays, all domestic colleges and universities use teacher education-oriented teaching mode in translation teaching. On this basis, the combination of microprocessor and computer-related technology has become an advanced experimental teaching method. In the prior art, the experimental device uses an independent console to control the operation of the experimental microprocessor. The console and the experimental microprocessor circuit are different chips. The experimenter generates various controls by operating the control console on the computer. The signal controls the operation of the experimental microprocessor. However, there is currently a lack of an effective operation control logic for controlling the operation of experimental microprocessors, which can be applied to microprogram control and hard-wired control microprocessors [30]. It has a comprehensive and efficient operation control method and can be well implemented and detailed translation. In teaching, in view of the limitations and deficiencies in the implementation of experimental microprocessor operation control of the computer hardware experiment device in the prior art, an embedded operation control logic for the experimental microprocessor in the computer hardware experiment is proposed, which can be very effective. A good solution to this problem. Figure 5 shows the structure block diagram of the embedded operation control logic of the proposed computer hardware experimental microprocessor.

With the rapid development of 5G, Internet of Things, and computer technology, all walks of life are now using these new technologies and gradually replacing labor, freeing people from heavy and trivial daily work. Education has been around since ancient times [31–33]. 4G networks are built for mobile phones, not optimized for the Internet of Things. 5G provides huge bandwidth for the Internet of things. Thousands of years ago, it has always been based on the model of teacher teaching and student learning. Now, with the more advanced equipment, the more tired, the more advanced equipment can make this work easier. In the case of computer-assisted teaching, people's learning time

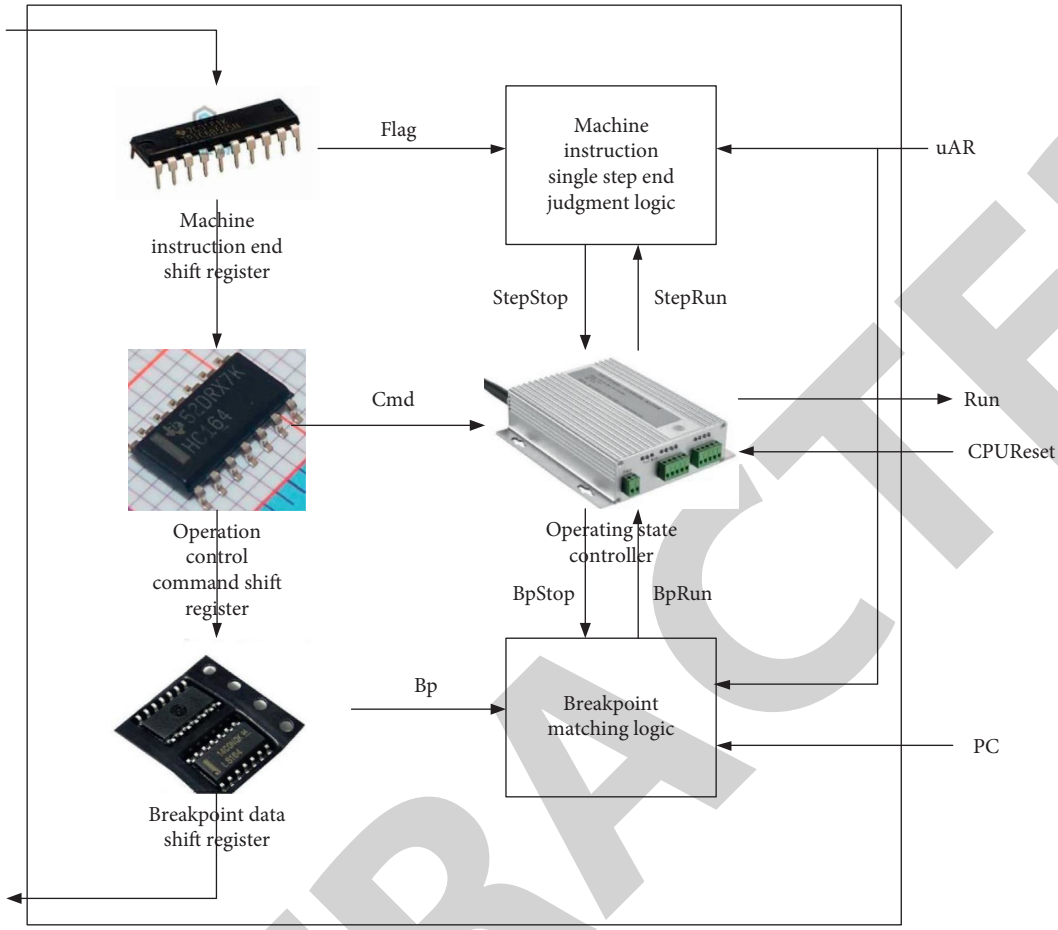

Figure 5: Embedded microprocessor used in computer.

and learning methods have changed in different ways. The application of embedded microprocessors in computer-assisted translation teaching is still rare in domestic and foreign research, but the technology of using embedded microprocessors has been experimented by many people in the past, and it has a great effect, as shown in Figure 6. It is the actual application situation of different embedded microprocessors.

3.2. Status Quo of Computer-Assisted Teaching under the Background of Wireless Communication. With the continuous development of the times, the wired era has left us, and now the most important means of communication is the realization of computer-related technologies under the background of wireless communication. Traditional wireless communication technology is affected by hardware devices, especially the connection speed and network bandwidth [34, 35]. In the past few years, China's wireless communication technology has rapidly spread and replaced it. The 3G and 4G construction processes have been superimposed, and the 5G construction has also begun to develop at a high speed, and the difficulty of maintaining the communication network has increased sharply, but it has brought a broader market. In terms of industry, China's 4G network is currently mature, and the construction of the "new infrastructure" representing 5G is accelerating, and the new communication network model has entered the construction cycle. Wireless communication technology has gradually begun to be widely used in all walks of life in our country and has produced great economic benefits. Figure 7 shows the specific development of wireless communication technology in China in recent years.

In recent years, with the rapid changes in information technology, wireless communication technology has accelerated the integration of new technologies such as the Internet, big data, and the Internet of Things, and information management and control, which has become the general trend in the industry. In the context of the geometric growth of data services, traditional communication technology service companies have many disadvantages such as decentralized management, extensive execution, long support chains, and slow response speed, making it increasingly difficult to meet customer needs. The application of wireless communication technology in computer-assisted translation teaching has not yet been implemented in our country. After all, the traditional education model of the education industry has always been accustomed to the public.

3.3. Computer-Aided Translation Teaching Experiment. The combination of computer and traditional teaching can improve students' enthusiasm in class and make learning resources can be shared. In the papers related to the teaching

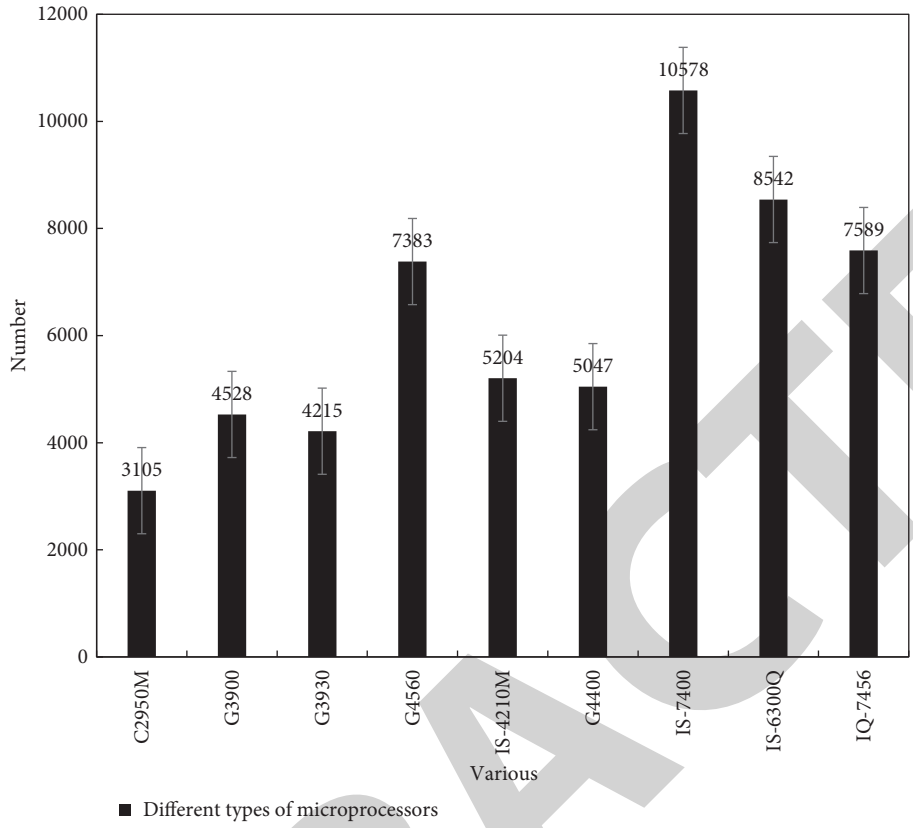

Figure 6: Application of different embedded microprocessors.

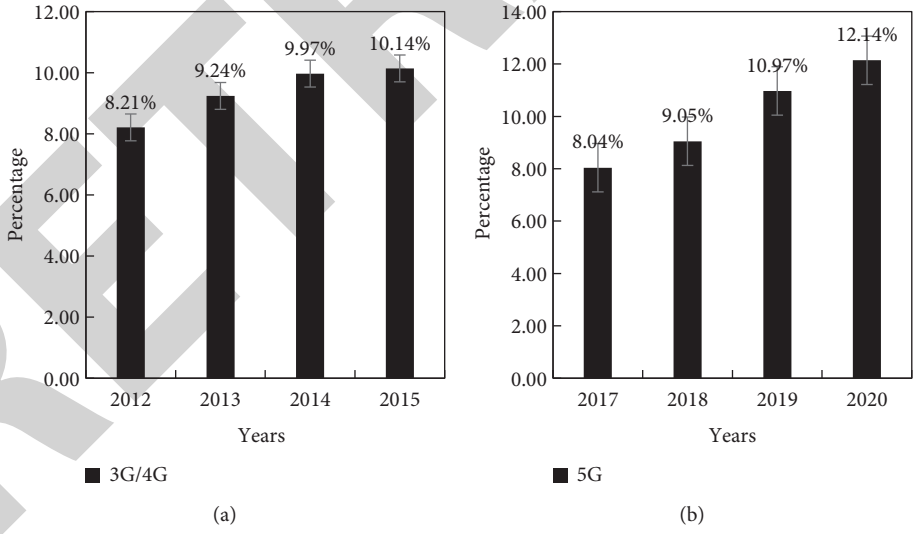

Figure 7: The development of China's wireless communication technology in recent years.

effect of computer teaching, most domestic and foreign research scholars are qualitative researches. Some scholars put forward suggestions and plans to improve the teaching effect, and some scholars combined computers with traditional teaching to improve the actual teaching effect, but they have been in a state of talking on paper. No actual experiment has been made for relevant verification, but a qualitative method is used to verify that computer teaching is better than traditional teaching in terms of effect.

The effects of traditional teaching and the use of computer-assisted teaching are compared in the translation classroom, and at the same time, it also explores the better learning knowledge of college students in the translation classroom and uses questionnaires to conduct related

Table 1: Reliability analysis of questionnaire.

Serial number	Feature element content	Each value of α	Overall value of α
1	Learning attitude	0.795	0.847
2	Learning interest	0.814	0.824
3	Learning motivation	0.809	0.827
4	Attention	0.817	0.834

Table 2: Correlation coefficient table of the score of each item and the total score of the questionnaire.

Question number	Total correlation coefficient	Question number	Total correlation coefficient	Question number	Total correlation coefficient
1	0.40	11	0.34	21	0.36
2	0.62	12	0.64	22	0.54
3	0.61	13	0.46	23	0.64
4	0.54	14	0.49	24	0.34
5	0.49	15	0.44	25	0.64
6	0.56	16	0.64	26	0.35
7	0.45	17	0.25	27	0.39
8	0.39	18	0.45	28	0.42
9	0.095	19	0.45	29	0.75
10	0.52	20	0.43	30	0.66

Table 3: About the actual situation of the questionnaires of the two groups A and B.

Category	Number of questionnaires issued	Number of questionnaires returned	Number of valid questionnaires	Recovery rate	Usage rate (%)
A	40	40	38	100	95
B	40	40	39	100	97.5
A	39	39	37	100	94.9
B	38	38	36	100	94.8

research. From the students' learning interests, learning motivations, and learning attitudes, we will explore in other aspects and compare which of the traditional teaching mode and the computer-assisted teaching mode has more advantages. Table 1 shows the reliability analysis of the questionnaire.

This self-made questionnaire is used as a test tool, with a certain university student as the research object, the questionnaire adopts closed questions, and relevant explanations are provided when the questionnaire is issued to help students understand the content of the questionnaire and make correct judgments. The quality of the questionnaire is ensured first and then the statistics and sorting of relevant data are carried out. In total, there are 30 questions in this questionnaire. The relationship between the questions and the total score of the questionnaire obtained through the relevant survey statistics is shown in Table 2, which can well reflect the current college students' views on computer-assisted teaching.

Randomly divide translation students from a certain university into groups A and B for experiments. Group A is the experimental group that uses computers for assisted teaching, and group B is the control group that uses traditional teaching methods. And the questionnaires were distributed between the two groups, and two questionnaires were conducted before and after the experiment to explore whether there were any changes in the psychology of the students in the two groups after the experiment. Table 3 shows the survey situation of the two groups A and B of the two questionnaires before and after.

After a period of teaching experiment observation, from the comparative observation of each class, it is found that the classroom learning situation of students in different groups is shown in Figure 8. There are obvious differences in performance. The specific effect is that the interest of students in the computer-assisted teaching group is generally higher than that of the interest of students in the regular teaching group lasts for a long time. About 90% of the students in the computer-assisted teaching group are concentrated, while only 70% of the students in the traditional teaching group are concentrated. The auxiliary teaching group is 20% higher than the traditional teaching group. Students in the computer-assisted teaching group are less likely to use mobile phones, talk, travel, and do tasks unrelated to the content in the classroom. Most of the students expressed their willingness to participate in the course content.

After one semester of experiments, I found that both the computer-assisted teaching group (group A) and the traditional teaching method group (group B) have had great changes in their learning attitudes, and they love learning more than before. However, the degree of seriousness of the computer-assisted teaching group is still greater than that of the traditional teaching group, and the students' self-

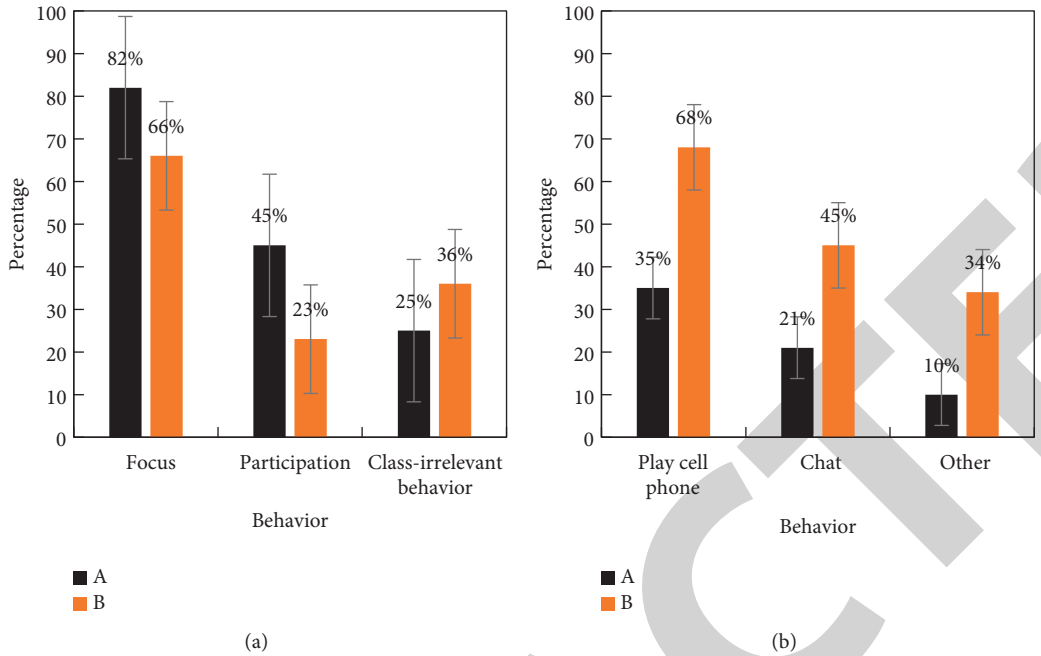

Figure 8: Groups A and B on the proportion of classroom performance.

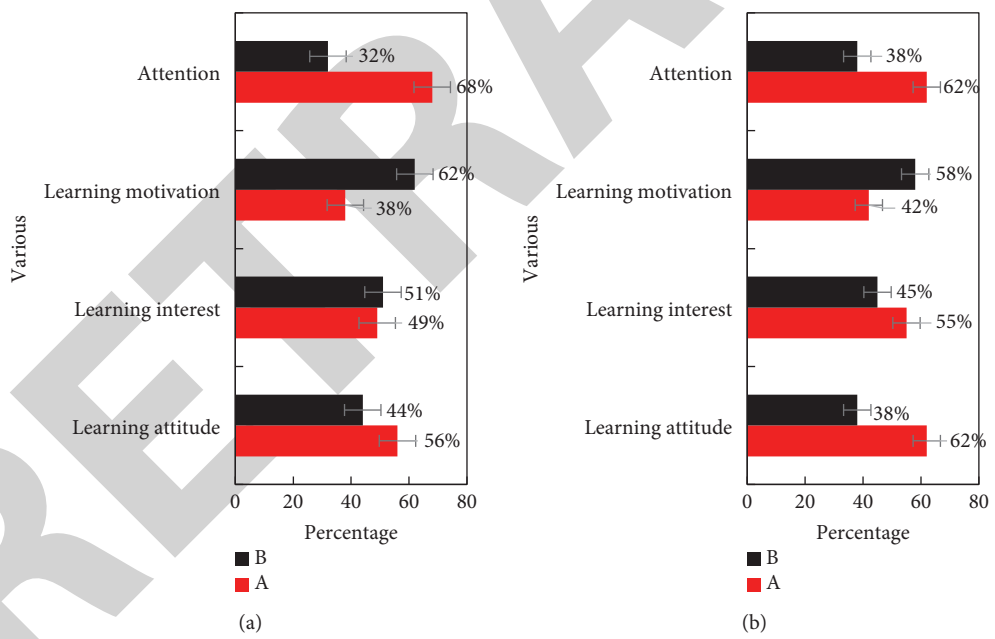

Figure 9: Changes in groups A and B after one semester.

consciousness is higher. Compared with the lazy learning attitude before, there has been a very big change. The specific situation is shown in Figure 9.

In the preexperiment test, the first batch of questionnaires was collected and the SPSS18.0 software was used to conduct independent sample T-test on the four dimensions of the questionnaire. After testing, according to Table 4, it can be concluded that the computer-assisted teaching group (i.e., group A)) and the traditional teaching group (group B) in the four dimensions of learning motivation, learning interest, learning attitude, and attention ($P > 0.05$), there is no significant difference. It shows that the experimental subjects have no difference in these four dimensions and have good homogeneity. They are relatively good experimental samples and can be used for follow-up experiments.

After a semester of teaching comparative experiment, after the test, the same questionnaire was distributed to the same group of students in the computer-assisted teaching group (i.e., group A) and the traditional teaching group (i.e., group B), and the questionnaires were recovered and used

Table 4: Preexperiment test of A and B on the four dimensions.

Variable	Group	M	SD	T	P
Learning attitude	A	27.7354	4.0157	−1.624	0.134
	B	28.9713	3.9478		
Learning interest	A	27.8951	3.4217	−1.573	0.099
	B	30.7529	3.1347		
Learning motivation	A	28.9754	3.4875	0.614	0.549
	B	29.5478	3.5741		
Attention	A	9.2472	2.9875	−0.497	0.591
	B	9.1348	3.0478		

Table 5: Postexperiment test of A and B on the four dimensions.

Variable	Group	M	SD	T	P
Learning attitude	A	32.0478	3.5175	2.217	0.048
	B	29.5178	4.3271		
Learning interest	A	35.0478	4.4573	3.195	0.201
	B	31.6478	4.1578		
Learning motivation	A	31.4298	3.4647	0.847	0.650
	B	31.4200	3.3478		
Attention	A	8.0417	2.6354	−2.415	0.035
	B	9.0475	3.5647		

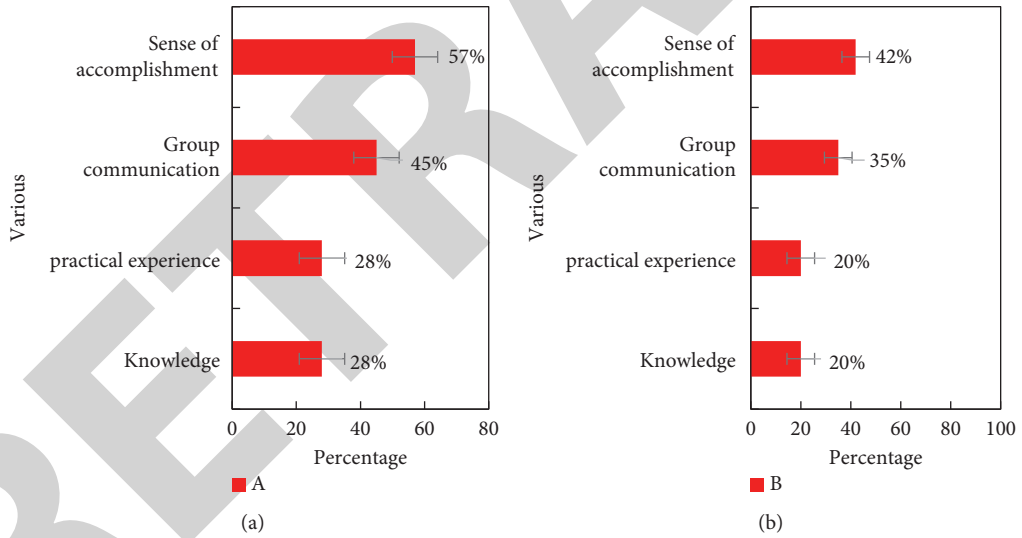

Figure 10: Comparison of the proportion of students' classroom performance in the two teaching modes.

SPSS 18.0 for independence. Sample T-test, after testing, according to Table 5, there are significant differences between the two classes in the three dimensions of learning attitude, learning interest, and attention ($P < 0.05$), and there is a very significant difference in learning interest. This shows that after teaching experiments, the computer-assisted teaching group and the traditional teaching group have differences in the three dimensions of learning motivation, learning interest, and attention. There is no difference in learning motivation between the two classes ($P > 0.05$), indicating that after a semester of teaching comparative experiment, there is no difference in learning motivation between the computer-assisted teaching group and the traditional teaching group, and the translation teaching effect comparison experiment has no learning motivation.

As shown in Figure 10, the sense of success in the acquisition of knowledge, real experience, exchange of experience, and computer-assisted teaching translation classroom is much higher than that of traditional translation teaching groups. In terms of knowledge acquisition, traditional teaching accounts for about 20% and computer-assisted teaching accounts for about 28%. In terms of practical experience, traditional teaching teams account for

about 20%, while computer-assisted teaching accounts for about 28%. But in terms of the success rate of group communication, the traditional teaching group accounted for 35% and the computer-assisted teaching group accounted for 45%. In terms of students' sense of accomplishment, 42% in the traditional teaching group and 57% in the computer-assisted teaching group. The above data all show that computer-assisted teaching is generally better than traditional teaching in terms of student classroom performance.

4. Discussion

The analysis of the computer-assisted teaching intention questionnaire shows that compared with the traditional translation teaching in colleges and universities, most students understand computer-related operations better and prefer the influence and skill development of computer-assisted teaching. This part of the questionnaire reflects the students' personal feel. Computer-assisted teaching is very useful for the complete and practical application of translation knowledge. Regarding the results of the relevant test score data analysis in class and after class, it can be intuitively seen through the independent sample *T*-test that the two groups with no obvious difference show significantly more differences in test scores. Among them, the computer-assisted teaching increased performance in the group significantly faster. This is done to verify the hypothesis put forward before the experiment, that is, the influence of computer-assisted teaching on the professional development of translation students is more obvious. In terms of classroom efficiency, student participation increases, the attention spans longer, the sense of accomplishment became higher, and there is a reduction in their irrelevant behavior. This information often allows teachers to learn more about student performance.

5. Conclusions

In today's society, talents are produced in large numbers, and talents from various 985 and 211 colleges and universities abound. At this time, companies pay particular attention to the specific abilities of recruiters. Therefore, this issue should be paid attention to when training in schools. There is no difference between the vocational training and professional characteristics of major colleges and universities, and the CAT curriculum format suitable for the times should be created based on the discipline advantages of colleges and universities , integrate translation assistance software into independent classroom teaching and independent subject generation system, and expand school-enterprise industry-university-research interaction. It will provide students with more translation education, teaching, and practical opportunities. This article is based on the research of computer-assisted translation teaching courses under the background of embedded microprocessor wireless communication. I want to explore the current translation teaching mode, integrate the current advanced computers into it, and gradually play a leading role. Now all major universities have been in trying things, this will be of great benefit to enhancing the professional ability of college students and increasing the professional competitiveness of graduates.

Data Availability

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

Conflicts of Interest

The authors state that this article has no conflicts of interest.

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