English Applied Ability Teaching Reform of Mechanical Design and Manufacturing in ESP Teaching Mode

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Abstract: ESP Teaching method is an approach that is significantly different from the conventional English Language Teaching method. ESP teaching is a market-driven, communicative English teaching model which is based on the overall principle of significantly improving learners' professional English social skills, learner-centered, and meets the needs of society and individuals. In this study, researcher’s attempt is to integrate ESP teaching model into design and manufacturing English teaching. The study aims to investigate whether ESP teaching method assist learners in mechanical design and manufacturing master the English skills of effective communication in the professional field. The study discusses the teaching reform in the teaching materials, teaching content, teaching methods and teaching assessment for mechanical design and manufacturing English. Some ideas, such as improving teaching methods and students' learning initiative, have been adopted in teaching practice and the teaching effect is very good.

1. Introduction
Machinery manufacturing industry, as the basic industry for economic development, embodies the national productivity level and technological research and development capability. In recent years, with the development and progress of China's machinery industry and the integration of foreign advanced technologies, it has become increasingly important for students majoring in mechanical design and manufacturing to learn English. Although some students are competent in daily conversation and communication, they often feel laborious when it comes to professional content, and it is difficult to understand and communicate accurately due to lack of corresponding background knowledge. Mechanical design and manufacturing English is a scientific English, which has important course status and practical significance in training modern advanced engineering and technical talents. Through the study of mechanical manufacturing English, students should master the professional vocabulary and expressions with high utilization rate in this field, have the ability to read books and periodicals in mechanical design and manufacturing English, translate English technical documents and papers in mechanical design and manufacturing, understand the latest developments in the development frontier of the mechanical industry, and have a certain ability to write scientific English. At present, most colleges and universities in China have started the English course for mechanical design and manufacturing, but the overall English level of students has not been able to
adapt to the situation of international economic integration. Based on the analysis of the present situation of English teaching for mechanical design and manufacturing, this paper discusses the teaching practice reform of English for mechanical design and manufacturing from the aspects of textbook selection, teaching mode, teaching means and teaching evaluation.

At present, the teaching forms of mechanical English mainly include the following forms: first, vocabulary and translation teaching methods are used to explain knowledge points or language points, and the text content is translated sentence by sentence; Secondly, after explaining some of the contents, the teacher designates the remaining contents as students' self-study, and then tests their mastery and understanding of knowledge by asking questions. Due to this traditional mode, there are many problems in the teaching of English for majors in mechanical design and manufacturing in the actual teaching process. For example, due to professional reasons and teachers' problems, many colleges and universities in China generally do not pay much attention to professional English teaching. Teachers' teaching orientation is not clear, teaching mode is outdated, teaching methods are backward, and teaching materials are lagging behind, so students' learning enthusiasm is not too high, and their initiative is not strong, which is embodied as follows:

First, because teachers' professional English teaching orientation is not clear, there is no difference in teaching methods between specialized English teaching and basic English teaching. Due to the differences in teachers' teaching level and understanding of specialized English teaching, most teachers still teach according to basic English teaching methods, and adopt translation and syntactic explanation methods, ignoring the uniqueness of specialized English. Compared with basic English learned in universities, professional English has many characteristics in vocabulary, expression and grammar. First of all, it contains a large number of professional scientific and technological vocabulary, and often adopts formulaic expression. Secondly, in terms of grammatical structure, passive voice, unqualified verbs and commonly used conditional sentences, long sentences and ellipsis sentences are widely used. Therefore, in terms of teaching means and methods, professional English teaching cannot be equated with basic English teaching.

Secondly, teachers' English teaching mode is outdated so that students' enthusiasm is not high. In the current teaching mode of specialized English, most classrooms are mainly based on teachers' teaching materials, supplemented by students' listening and practicing. Students passively accept knowledge, and teachers and students lack active interaction and communication. This single teaching mode based on teachers' teaching results in students' lack of interest in learning specialized English. Their initiative is suppressed, and their creativity and application are extremely poor, which leads to a serious decline in classroom teaching effect and low learning efficiency of students.

Thirdly, the content of teaching materials lags behind and curriculum construction is neglected. At present, most English textbooks for mechanical design and manufacturing are extracted from foreign mechanical books, which are random in content and lack a complete knowledge system. They mainly adopt the arrangement form of text plus vocabulary, and lack corresponding listening and speaking content and supporting reading exercises, which is not conducive to consolidating teaching achievements. At the same time, most of the textbooks are outdated and cannot reflect the development status of mechanical engineering technology in real time. Another, there is a lack of excellent courses and online courses of English for mechanical design and manufacturing in the whole country, and there are very limited ways to learn English after class.

2. Study Purpose and Method
ESP, the abbreviation of English for Specific Purposes, was put forward by the relevant persons of foreign systemic functional linguistics in the 1960s, specifically referring to English associated with a particular occupation or subject. ESP teaching is a market-driven, communicative English teaching model which is based on the overall principle of significantly improving learners' professional English social skills, learner-centered, and meets the needs of society and individuals. The purpose is to help learners master the English skills of effective communication in the professional field. ESP teaching mode can combine basic English teaching with vocational education, English language teaching with
professional technology, so as to further enhance students' interest in learning English, promote cultural awareness and improve professional accomplishment. Giving full play to the professionalism and practicability of English teaching, it has remarkable practical value in cultivating applied talents in higher vocational English teaching.

Purpose of the study:
The study aims to seek the effect of ESP teaching method in mechanical design and manufacturing English.

Research questions:
The present study aims to answer the following two questions:
What are the students’ English language background in mechanical design and manufacturing?
How does the ESP Teaching method enhances students’ English language skills?

3. Results and Discussions
In view of the above problems, the author explores and reforms the teaching mode of English for Mechanical Design and Manufacturing based on years of teaching practice, and injects new and attractive elements into the teaching content, teaching mode and teaching method. The teaching content is closely related to the frontier, with practicality and pertinence; In the teaching mode, students are the main body, so that students can participate more in the classroom; A variety of teaching methods are adopted to enhance students' passion, initiative and enthusiasm in learning, thus improving the teaching effect of English for Mechanical Engineering, which is mainly presented in the following four aspects.

Firstly, teachers can expand professional English teaching resources and improve students' interest. With the great progress of modern educational technology, teachers can give full play to their creative talents, make boring teaching contents vivid and visualized by using multimedia technology, and present abstract and boring academic articles in the field of mechanical engineering in textbooks by means of more novel and vivid multimedia, which can not only improve students' interest and participation, but also provide a lot of rich materials for students to learn professional English, broaden students' knowledge and professional perspective, and enrich them.

Secondly, enrich teaching content and teaching methods, and broaden students' application ability of specialized English. While attracting students to actively learn professional English, the rich professional resources of Internet and streaming media can make students understand the development frontier of mechanical engineering industry, make up for the deficiency that the teaching content of professional courses lags behind the development of science and technology, and promote students to have an international vision and have the trend and concept of opening and development. The web pages of major international companies are equipped with abundant professional resources. By introducing information such as equipment parameters, equipment working principles and equipment operation in various ways, students' comprehensive ability to use professional English in professional work can be strengthened and their professional quality can be improved.

Thirdly, diversified compilation of teaching materials enhances the novelty and real-time of teaching content. Mechanical English textbooks should be matched with mechanical courses. It is suggested to break the conventional mode of holding one textbook and explaining the texts one by one. On the one hand, many representative teaching materials are selected, their contents are deleted and supplemented, and systematically arranged according to the mechanical knowledge system of school.

Lastly, establish diversified and integrated term achievement assessment. Term achievement assessment has important links to feedback the effect of English teaching and improve teaching quality. Mechanical major English teaching can adopt multi-angle, diversified and comprehensive ability assessment, and adopt the combination of formative evaluation and final evaluation. Formative evaluation is mainly based on the continuous observation, recording and reflection of the whole process of students' learning. Its purpose is to encourage students to learn, to help students effectively regulate their own learning process, to enable students to obtain a sense of achievement, to enhance
their self-confidence, and to cultivate the spirit of cooperation. Students can change from passive acceptance of evaluation to active participants. It can be comprehensively evaluated according to students' classroom participating, situational teaching group discussion, practical application and homework completion. The final evaluation means that the final examination takes the form of closed written paper examination, which mainly examines the students' mastery of professional vocabulary, English-Chinese translation of professional knowledge, professional English writing, etc. The assessment type is often set as reading comprehension, translation and writing of professional documents.

Teaching practice shows that the establishment of a diversified and comprehensive assessment model of professional English not only improves students' subjective initiative in learning, but also runs through the whole teaching process. It overcomes the drawback that examination-oriented education can not really reflect students' professional English application ability and communication ability.

4. Conclusions
With the globalization of economy, production and enterprise distribution, manufacturing enterprises pay more and more attention to the cultivation of professional English ability. Based on the analysis of the learning status of mechanical English for some college students, this paper carries out targeted reforms from four aspects: teaching materials, teaching content, teaching methods and teaching evaluation, which changes the passive teaching and learning into active teaching and learning. And practice has proved that the measures taken are effective.

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