

# Strategies for Enhancing English Learning Ability among Secondary Vocational School Students Based on the 5E Instructional Model

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**Abstract**—In order to effectively improve the communication skills and cross-cultural language perception of secondary school students in English and to promote their overall development. This paper analyses the current background of the era of vocational education, the curriculum standards of secondary English, the current situation of English learning for secondary students, proposes the 5E Instructional Model, specifically explains the five aspects of the 5E instructional model: engagement, exploration, explanation, elaboration and evaluation, discusses the application of the 5E Instructional Model in English learning, improves teaching methods, optimises the teaching structure and enhances the core literacy of English learning ability.

**Keywords**—vocational students, the 5E instructional model, the core competency

## I. INTRODUCTION

In today's society, with the rapid development of national economic construction and the gradual formation of the knowledge economy era, the market demand for vocational and technical personnel is increasingly expanding the gap. At the same time, the State Council issued the "National Implementation Plan for Vocational Education Reform" and the newly revised Vocational Law put forward the strategic policy of giving equal importance to general education and vocational education and implementing a dual-track development route, which shows that the author's country attaches increasing importance to vocational education [1]. As a result, the importance of English for secondary vocational education has become increasingly prominent. The English Curriculum Standards for Secondary Vocational Education (2022 edition) clearly states that: developing core literacy in secondary vocational school subjects, improving language skills such as listening, reading and writing, strengthening key competencies, integrating English learning with specific subjects, professional knowledge or job competencies, carrying out practical English language activities in vocational scenarios, enhancing language communication skills in the workplace, and cultivating complex and highly skilled talents [2]. The aim of the English curriculum in secondary vocational schools is to fully implement the Party's education policy, to implement the fundamental task of building moral character, to build on the foundation of compulsory education, to further stimulate students' interest in learning English, to build confidence in learning English, and to assist students in mastering basic knowledge and fundamental skills [3].

## II. CURRENT STATUS OF ENGLISH LEARNING AMONG SECONDARY VOCATIONAL SCHOOL STUDENTS

With the seven years of teaching experience, it has been found that the English foundation of most vocational education students is relatively weak, and their enthusiasm for learning English is not high. Taking the vocational school where the author teaches as an example, the author randomly selected 500 students as samples to statistically analyze the number of students in each interval of their total scores in the middle school entrance examination, the number of students with the lowest scores in the three major subjects (Chinese, mathematics, and English), and the number of students with an average score in English. From these three indicators, we can see that the English scores of vocational students are generally low. Therefore, it is imperative to change this situation (see Table 1).

Table 1. Investigation of secondary vocational school students' scores in the high school entrance examination

Items/Score	Number of Students	Number of Students with the Lowest Scores in English among the Three Main Subjects	Average English Score
Lower than 300 points	44	35	34.1
300–400 points	271	218	48.1
400–500 points	146	81	60.9
Over 500 points	39	16	78.3

Based on the above research, the author has identified three main problems in English learning for vocational students:

- Lack of Initiative in English Learning
  - 1) The student level: Surveys and analysis show that most vocational students have a fear of learning English, leading to a widespread phenomenon of disinterest and even dropping out of school. After experiencing failure in the middle school entrance examination, students are often discouraged and can only improve their listening, speaking, reading, and writing skills through hard work and practice outside of class. However, students often do not know where to start, resulting in a lack of enthusiasm for learning English.
  - 2) The teacher level: The teaching model of teachers is too outdated, and the one-way and rote teaching methods are difficult to stimulate students' interest in learning. Teachers usually use a single and traditional teaching method, such as grammar-translation method, directly for language learning and memory, which is relatively outdated. The uneven basic level of students poses a

great obstacle to teachers' efficient teaching, reduces the quality of teaching, and weakens students' initiative in learning English.

- 3) At the school level: There is an educational deviation in schools, and most schools are too focused on the examination-oriented education system, resulting in teachers ignoring individual differences among students, leading to some students becoming disinterested in learning English and even dropping out of school. The weak foundation of English teaching in schools is manifested in the lack of teaching resources, insufficient student interest, and a lack of innovation in the teaching process by teachers.

- **Poor Efficiency in English Learning**

- 1) The student level: Firstly, vocational students generally have weaker knowledge acquisition, comprehension, and application abilities. Coupled with the lack of initiative in English learning, many students lack the basics of vocabulary and language rules, resulting in a weak foundation in English, which reduces learning efficiency. Secondly, most vocational students lack an active learning and exploratory mindset, and tend to adopt passive learning styles. After class, they rarely take the initiative to deepen their knowledge and expand their classroom knowledge, lacking enthusiasm and exploratory spirit for knowledge.
- 2) The teacher level: The traditional teaching methods adopted by English teachers in vocational schools hinder students' initiatives and the development of their subjectivity. The classroom atmosphere is relatively serious, lacking good interaction and communication between teachers and students, which is not conducive to the implementation of the development concept of quality education.
- 3) At the school level: Subjectively, students have developed poor learning habits during their junior high school years, making it difficult for them to be self-disciplined, which affects the learning of other students. Objectively, the quality of students in vocational schools is relatively weak, and their cultural foundation is relatively weak, with many problematic students, which affects teachers' normal teaching. This vicious cycle results in low teaching quality, further reducing students' learning efficiency.

- **Lack of Goal-Oriented English Learning**

The motivation to learn is weak, and there is a lack of clear learning goals. Many vocational students fail to recognize the importance of English in improving their personal career skills, and therefore do not set corresponding learning goals in the learning process, resulting in a lack of enthusiasm and initiative in English learning [4]. In addition, in recent years, most vocational schools have focused on cultivating students for further professional study in higher vocational schools, with a focus on students' test scores for admission. This has led to many vocational students learning English just to cope with exams and improve scores in the short term, without regarding improving English communication and writing skills as a long-term goal to enhance future career competence. In the long-term drill of question-and-answer tactics, students lose their motivation to learn English [5].

### III. INTRODUCTION TO THE 5E INSTRUCTIONAL MODEL

In order to effectively address the problems that vocational students face in learning English, to stimulate their interest in English learning, to build their confidence in learning English, to help students master basic knowledge and skills, and to further enhance their English learning ability, this article proposes a teaching method that focuses on the development of vocational English ability; the 5E instructional model, which is based on the STEM integration education philosophy.

The 5E instructional model is a constructivist teaching model that focuses on students' self-exploration, encourages the establishment of conceptual understanding and knowledge construction through group cooperative learning, and enhances students' independent learning consciousness and ability, critical and innovative thinking, learning efficiency, and meets the requirements of the English curriculum standards and the needs of today's society for the cultivation of "multiplex talents". Therefore, more and more teachers are beginning to try to apply the 5E learning cycle model to subject teaching [6].

- **The Model Includes the Following Five Teaching Stages**

- 1) Engagement. This is the starting point of the 5E instructional model. The focus is on combining the content and teaching tasks of the curriculum, creating problem scenarios that are closely related to real-life situations and can attract students, igniting cognitive conflicts, and stimulating students' interest in actively exploring and constructing knowledge.
- 2) Exploration. Exploration is the central stage of the 5E instructional model. The focus is on guiding students to engage in exploration activities based on the cognitive conflicts that have emerged, fully experiencing the process of knowledge construction. Teachers provide necessary support such as background knowledge and thinking methods to students, timely prompting and guidance at key and confusing points during students' exploration activities, and regulate the progress of exploration activities to promote students to experience the process of knowledge formation and obtain as rich exploration results as possible.
- 3) Explanation. Explanation is the internalization stage of the 5E instructional model. The focus is on providing students with opportunities to demonstrate and communicate their exploration process and results, organizing students to explain and communicate their understanding of the problem, methods used, problem-solving solutions, and the value of results. Teachers guide students to interact based on logical reasoning during the problem-solving process, guide students to pay attention to the scientific and rationality of the exploration process, help students deepen their understanding of knowledge during the explanation process, further improve the knowledge structure, and enrich the representation and practical meaning of knowledge.
- 4) Elaboration. Elaboration is the expanded application stage of the 5E instructional model. The focus is on guiding students to explain new situations or solve new problems using constructed knowledge, skills, or

methods, realizing the transfer and application of knowledge, enhancing the ability to observe using an English perspective and think using an English thought process, and improving English thinking skills and core competencies.

- 5) Evaluation. Evaluation is the review stage of the 5E instructional model. The focus is on evaluating students' understanding and application ability of new knowledge, as well as their comprehensive performance in the process of exploration, through task-based, test-based, or comment-based methods. It plays the role of motivation, guidance, and diagnosis in evaluation, and also prompts teachers to reflect on the teaching process and teaching effectiveness and improve subsequent teaching [7].

During the analysis process, the 5E instructional model places great emphasis on cultivating students' ability to actively explore new knowledge. Teachers need to play the role of guide and facilitator, helping students review old knowledge while learning new ones, promoting continuous discovery, exploration, and problem-solving processes, in order to master new knowledge and enhance skills. Therefore, using the 5E instructional model to guide vocational English teaching has important guiding significance.

For example, in the over ten years of English learning, the most difficult grammar problem that students meet is verb tenses. To solve this problem properly, the author attempted to use the 5E instructional model. First, the author asked students questions in both Chinese and English, such as "Do you eat?" and "Did you eat?", to let students identify the similarities and differences between the four sentences, and stimulate the joy of active exploration. Then, some guidance was provided to let students obtain as many exploration results as possible. Secondly, students were grouped to present, explain, and communicate the problems that emerged, such as why did it appear present continuous tense in that sentence? and why wasn't the "have/has done" tense used in that sentence? and etc. The author guided students to consider the status aspect in the tense. Thirdly, after constructing the verb tense concept, students were suggested to expand to non-finite verbs, establish the concept between non-finite verbs and finite verbs, and so on. Finally, the author and students evaluated this course through interview and questionnaire methods, which could improve students' abilities of independent learning and language comprehensive application, and also improve the efficiency of English learning.

#### IV. THE PRACTICE OF 5E TEACHING METHOD IN VOCATIONAL ENGLISH TEACHING

With the development of globalization and economy, English has become a global universal language, and vocational education students need to master this language to adapt to the international situation. However, vocational education students face many difficulties in learning English, such as poor grasp of the language, lack of interest, and dry textbooks. In this context, the application of the 5E instructional model is an effective way to improve vocational education students' English learning ability.

##### *A. Engagement*

The engagement stage is crucial in English education, as it relates to students' learning interests [8]. First, teachers can use group discussions to let students understand the importance of English, encourage students to showcase the English vocabulary they know, and enhance their interest in learning English. As students have different cultural backgrounds and interests, teachers can provide relevant learning materials, such as English songs and movies, to let students learn about English in an interesting environment [9].

##### *B. Exploration*

The exploration stage is a method for students to actively discover problems and explore solutions. First, teachers can let students search for relevant information in groups and discover excellent learning materials. Through group discussions, students can absorb different knowledge and ideas and share their own views with others, improving their teamwork skills. In this stage, teachers can guide students to view and use various learning materials, such as online word quizzes, learning videos, and reference manuals.

During the exploration stage, the author will organize students into groups for collaborative learning. Students are encouraged to share their English learning experience and knowledge with each other and inspired to actively explore new learning methods and strategies [10]. For example, students can use electronic dictionaries, online learning platforms, or even apps related to the English language. At the same time, the author will distribute English learning resources, such as English articles, songs, and dialogue scenes, allowing students to achieve the best learning results. This can also enable students to develop independent thinking skills and cultivate their critical thinking ability during self-directed learning.

##### *C. Explanation*

After completing the exploration stage, teachers can impart new knowledge to students. Teachers should design the content based on the level and understanding of students, allowing them to further master English knowledge and skills on the basis of understanding [11]. Teachers can use methods such as performances and video tutorials to explain phonetics and grammar knowledge, and focus on important aspects. After the explanation, some exercises can be provided to help students consolidate and strengthen their learning.

In addition, teachers can also guide students to use online tools, such as online grammar checkers and online word translation tools, which can enhance students' confidence and improve their language level.

During the explanation stage, the author will use various teaching resources to present new knowledge, such as English phonetics and grammar. In order for students to understand the new content, the author will also intersperse personal experiences and learning techniques to stimulate students' interest in learning English. Furthermore, the author will use interactive tools such as bullet screens to help students better understand and interact. In addition, the author will let students complete relevant English tasks in groups to make them actively participate in classroom teaching and consolidate their learning content.

#### D. Elaboration

After mastering the basic knowledge, students need to expand their knowledge and integrate them into real life to improve their language level. Teachers can deepen students' understanding and mastery of English through practices such as speeches and debates. Students can also expand their language skills through reading and writing, making the learning experience more enriching [12].

During the transfer stage, the author will help students apply what they have learned to real life. For example, the author can organize various activities such as English speeches, games, and competitions to provide students with a wide and rich language learning platform. In the expansion stage, students will be able to understand more deeply and fully that learning English is not just about mastering a language, but also about obtaining more opportunities for communication and interaction in daily life, laying a solid foundation for their future career and self-worth realization”.

#### E. Evaluation

Evaluation is an indispensable part of the educational process. In the evaluation stage, teachers should design different tests based on students' different abilities, including reading comprehension exercises, speaking exercises, listening exercises, etc. Through these tests, teachers can gain a deeper understanding of students' understanding, diagnose students' problems and provide targeted help. At the same time, the evaluation stage is also an important step in encouraging and maintaining students' learning enthusiasm.

In the evaluation stage, the author will use various forms of mid-sized and small-sized exams to test the students' mastery of the content learned in the lesson. The author will guide the students to practice writing, speaking, and reading comprehensively, helping them to understand English in a more comprehensive and profound way [13]. At the same time, the author will also analyze and summarize the test results, improve teaching methods and strategies, and improve students' learning abilities. In actual teaching, the application of the 5E instructional model to the improvement of English learning abilities for vocational education students is very effective. Teachers can use the five stages of engage, explore, explain, elaborate, and evaluate to help students master knowledge in an interesting environment and deepen their understanding of English through practice. After applying the 5E instructional model to 31 students of the 22nd Herbal Medicine Class of S School for a school year, the overall grade improvement rate was over 30%, with the highest-grade improvement exceeding 80%.

#### V. CONCLUSION

In English teaching for vocational school students, the 5E instructional model is an effective teaching method and strategy. the 5E instructional model is beneficial for students' autonomous learning, thinking ability, and language ability and comprehensive ability improvement. In teaching practice, according to class size and practice time, the 5E instructional model should be fully used in the five stages of engage, explore, explain, elaborate, and evaluate, and students should

be guided to constantly progress and improve through various forms of teaching resources and evaluation methods. In conclusion, the 5E instructional model can better promote the improvement and development of English teaching for vocational school students, enabling them to achieve excellent results in English language ability and learning attitudes.

#### CONFLICT OF INTEREST

The authors declare no conflict of interest.

#### AUTHOR CONTRIBUTIONS

Xueyan Wang conducted the research, analyzed the data and wrote this paper; Huiying Yang, associate professor at the School of Foreign Studies, Northwestern Polytechnical University and supervisor of Xueyan Wang, has contributed a lot to writing and improving this paper; all authors had approved the final version.

#### REFERENCES

- [1] M. F. Tian, "Analysis of the survey on the current situation of English learning among high school students," *Forest Teaching*, no. 5, pp. 39–41, 2017.
- [2] A. David, "Tristram Hooley Careers leadership in practice: A study of 27 careers leaders in English secondary schools," *British Journal of Guidance & Counselling*, vol. 47, issue 5, pp. 556–568, 2019.
- [3] A. Barabasch, S. Bohlinger, and S. Wolf, "Policy transfer in vocational education and training and adult education," *Research in Comparative and International Education*, vol. 16, issue 4, pp. 335–338, 2021.
- [4] E. Gericke, "Vocational guidance in general and vocational education schools in Germany: The relevance of informed choice for successful vocational education and the legacy of Aloys Fischer," *Journal of Philosophy of Education*, vol. 56, issue 3, pp. 467–478, 2022.
- [5] T. H. Morris, "Vocational education of young adults in England: A systemic analysis of teaching—Learning transactions that facilitate self-directed learning," *Journal of Vocational Education & Training*, vol. 70, issue 4, pp. 619–643, 2018.
- [6] L. Xia, "Building an effective English teaching course and promoting the development of vocational college education," *Computer Informatization and Mechanical System*, vol. 2, issue 6, 2019.
- [7] L. K. Kobusingye, "Navigating the Importance of selected educational technology tools in enhancing and transforming the task-based learning method: Reflective insights from teaching graduate educational psychology students at one Ugandan university," *Advances in Educational Technology and Psychology*, vol. 6, issue 5, 2022.
- [8] M. Maurer, "Recognizing prior learning in vocational education and training: Global ambitions and actual implementation in four countries," *Comparative Education*, vol. 59, issue 1, pp. 1–17, 2023.
- [9] X. W. Niu, "Internet-assisted English teaching in higher vocational education," *Journal of Physics: Conference Series*, vol. 2066, issue 1, 2021.
- [10] J. M. Song, D. Z. Chen, and H. J. Wang, "The practical significance and realization path of China's modern apprenticeship system under the background of the new vocational education law," *Journal of Research in Vocational Education*, vol. 4, issue 9, 2022.
- [11] Q. Guo, "An attempt to task-based teaching in intensive English reading course in higher vocational education," *Frontiers in Educational Research*, vol. 4, issue 9, 2021.
- [12] X. Li, "A study on the reform of English classroom teaching and autonomous learning mode in vocational colleges," *International Journal of New Developments in Education*, vol. 5, issue 4, 2023.
- [13] J. Helen, B.-G. Saskia, and W. J. Margje, "Exploring students' self-regulated learning in vocational education and training," *Vocations and Learning*, vol. 13, issue 1, pp. 1–2, 2019.

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