

# Construction and Analysis of Foreign Language Learning Models Based on Classroom Network Environment

Lei Zhang

Shengli College China University of Petroleum, Dongying, Shandong, 257061, China

**Keywords:** Classroom network environment, Learning model, Foreign language learning conditions

**Abstract:** Based on the research results of linguistics, language learning theory, and educational technology, this article attempts to construct and analyze the “Web-Based FL” from the perspective of instructional design that helps promote foreign language learning in the classroom network environment. The learning model points out the main foreign language learning concepts reflected by the model, and further analyzes the internal and external conditions of foreign language learning in the classroom network environment, with a view to providing useful guidance for foreign language learning in the classroom network environment.

## 1. Introduction

The process of language learning is a chain consisting of input → internalization → output → feedback. In this process, the learning environment plays an important role. Therefore, if the external environment of the learner, especially the micro learning environment, changes, the internal process of the learner's learning will also be affected. Although in the long-term exploration, people have a deeper understanding of the process and laws of language learning, and have formed some very influential language learning theories. These theories have a different perspective on language learning and second language learning. The essence has been explored, providing a colorful picture for us to understand the mechanisms, processes and laws of language learning. However, most of the existing research results on language learning theories are presented in the context of the traditional learning environment. With the rapid development of information technology, especially the development of network communication technology, the learning patterns of learners have been changed. The learner's learning environment has changed greatly from the past. In addition, the multimedia network learning environment constructed by multimedia technology and network communication technology has a variety of characteristic environments that can create conditions for foreign language learning and provide good support for foreign language teaching and learning. Therefore, the idea of using modern information technology to reform traditional teaching and learning has also become a major trend in the reform and development of international foreign language teaching. Foreign language teaching in the multimedia network environment, especially in the classroom teaching of middle and primary schools, make full use of the advantages of the multimedia network environment (referred to as “classroom network learning environment”). A hot issue in areas such as educational psychology. However, the learning in the network environment has some unique requirements for the learners. The learners in this environment will also show some different characteristics. According to the existing research literature, the process of foreign language learning in the classroom network environment, Research on characteristics and influencing factors is still scarce. Therefore, studying the process, characteristics, and conditions of foreign language learning in the classroom network environment has important theoretical and practical significance for guiding foreign language teaching and learning in the classroom network environment.

## 2. Construction of “Web-Based FL” Model

The study of language acquisition and learning mechanisms is a multidisciplinary area of interest.

Linguistics, psychology, sociology, anthropology and other disciplines have systematically studied from different perspectives, forming dozens of different language learning theories and hypotheses. Some of these theories and hypotheses still have important influences to this day, such as Chomsky's "universal language" and "language acquisition mechanism" hypotheses, Codd's "internal outline" hypothesis, Krashen's "monitoring model" And the "emotion filtering" hypothesis. Because learning theory describes learning problems in a relatively static sense, dynamically examining objective things is an indispensable aspect of revealing all objective laws. The learning model describes the learning process and learning structure. According to the understanding of the nature of the learning, the relationship between the learning process and the elements in the learning structure, the corresponding learning model is constructed, which can make people understand the structure and dynamics of learning more clearly and intuitively. To study the process of learning, and then to promote student learning through effective instructional design. On the basis of absorbing and borrowing from existing language learning theories, second language acquisition and learning mechanism research, and the core of psychology, educational technology, and research results on the network environment, it will help to promote the classroom network learning environment. From the perspective of teaching design research, this paper attempts to build a foreign language learning model based on classroom network learning environment. The purpose of constructing the "Web-Based FL" learning model is not to propose a new language learning theory to replace the existing language learning theories, but to absorb the latest results of language learning research, The research results of language learning theory have been reorganized, considering the role of the network environment in supporting foreign language teaching and learning, and the impact of foreign language learning processes, forming a more comprehensive and complete understanding of the foreign language learning process in the network environment. Foreign language teaching design in the network environment provides more direct guidance. Based on the above understanding, output and other sources are the main sources of information input, especially in foreign language classrooms where teachers use foreign languages to organize teaching and communicate with students is a more authentic, natural and understandable source of information for children's language input) and Feedback composed of the learner's own output, such as the learner talking to himself during self-practice, communicating with his imaginary communication target, and communicating with teachers and peers, etc., are all mediated through diverse learning activities Become the main source of learner information input. Although foreign language learning emphasizes a large amount of information input, not all the input information can be noticed by the learners. Only those that are related to the knowledge background, needs, and interests of the learners and have prominent features can be easily noticed by the learners. In other words, in addition to the physical characteristics of the input information itself will affect the learner's selective attention and perception, the learner's existing language system knowledge (including strategic knowledge) and the motivation, learning attitude, interest, and needs Factors and the like also have a selective effect on the input information. In addition, not all noticed and perceived information can produce "language acquisition", and language information must have a certain "repetition rate" and "prominent", and must be understood and absorbed by the learner in order to integrate into the learner's language system.

### **3. Analysis of the "Web-Based FL" Model**

This model consists of four systems. They are the learner's personality characteristic system, the learning's internal cognitive processing system, the diverse learning activity system and the learning environment system. Each system contains several elements.

Located above the pattern diagram is the learner's personality trait system, in which the learner's learning motivation, self-regulation ability and learning style and other personalized features have an important impact on learning in the network environment, which collectively reflects the individual differences of the learner The impact on the learning process, they will affect learners' selective attention to information, processing and coding methods, information storage and extraction methods and strategies, and then have an important impact on cognitive processing

activities. The learning motivation system involves the motivation of students' learning activities. It determines the consciousness, enthusiasm, tendency and selectivity of individual activities. The level of power and strength determine the quality, level and effect of individual information processing. Learning motivation is not a single structure, but a system composed of multiple elements, including psychological components such as needs, motivations, attitudes, interests, and hobbies. The self-regulatory system is mainly composed of three elements: metacognitive knowledge, metacognitive experience, and metacognitive monitoring. It acts on all links of learners' internal cognitive processing activities through planning, evaluation, control, and regulation. The strength of metacognitive ability directly affects the planning, purpose, flexibility and effectiveness of individual information processing activities. While the learning dynamics system and the self-regulation system each play a regulating role on the individual's cognitive processing, the two systems are also interconnected and affect each other. Learning style refers to the relatively stable processing methods and tendencies exhibited by individuals in the learning context, including sensory channel preferences, cognitive styles, social environment preferences, etc., where cognitive styles relate to the way that learners are biased and used to process information. Closely related to online learning. Under the learner's personality trait system is the internal cognitive processing of second language and foreign language learning. This is the core part of the pattern diagram. It consists of four stages: input, understanding and absorption, integration and reorganization, and output.

“Input” refers to the input of linguistic information in different representations from different media into the learner's perception and memory. In this model, multiple representations of learning resources and learning communities (in classroom teaching, the language output of teachers, learning partners, etc.) are the main sources of information input, especially in foreign language classrooms where teachers organize teaching and communicate with students in foreign languages. Communication is a more authentic, natural and understandable source of information for children's language input) and feedback composed of the learner's own output, such as the learner talking to himself in self-practice. The exchange of communication objects with teachers and students has become the main source of learner information input through the intermediary of diverse learning activities. Although foreign language learning emphasizes a large amount of information input, not all the input information can be noticed by the learners. Only those that are related to the knowledge background, needs, and interests of the learners and have prominent features can be easily noticed by the learners. In other words, in addition to the physical characteristics of the input information itself will affect the learner's selective attention and perception, the learner's existing language system knowledge (including strategic knowledge) and the motivation, learning attitude, interest, and needs. Factors and the like also have a selective effect on the input information. In addition, not all noticed and perceived information can produce “language acquisition”. Language information must have a certain “repetition rate” and “prominence”, and must be understood and absorbed by learners before it can be integrated into Learner's language system. Understanding and assimilation refers to learners' discrimination, identification, analysis, comparison, matching, analogy, etc. based on or invoking relevant knowledge and experience in the language system through selective attention and perception of information through a variety of external learning activities. Internal processing activities such as connection, transformation, and refinement promote the dual processing of semantic information and grammar of linguistic information, which is then absorbed by learners. Integration and reorganization refer to the information processed, understood and absorbed by the learner, which will have an impact on the language system of the learner: on the one hand, it integrates into the existing language system of the learner and promotes rich connections of the original cognitive structure. On the other hand, it may also transform and reorganize the original language system. In addition, learners' existing language knowledge and skills, attitudes (attitudes towards foreign and foreign language learning, attitudes and recognition of learning in an online environment) and other information stored in long-term memory, through personality characteristics systems, especially It is learning motivation and self-regulation that have an indirect effect on language learning.

#### **4. Views on Foreign Language Learning Reflected in the “Web-Based FL” Model**

Foreign language learning is not only a process of individual cognitive construction, it is also a social construction process, which is determined by the characteristics of language learning. Foreign language learners need to be committed to language interaction and improve the knowledge structure in language negotiation, so communication and cooperative learning in foreign language learning can produce more effective learning. Cooperative learning enables each student to get more support, more opportunities for communication and participation, and a lot of language output, and more opportunities for timely feedback and correction. Therefore, effective foreign language learning should be social in nature. Individual cognitive structures are gradually formed and improved in interaction with society. Although foreign language learning mainly manifests as the internal cognitive construction process of the individual, this internal construction process is not isolated and spontaneous, but occurs in the process of interaction with the external environment. In the process of individual cognitive processing, learner's motivation, emotion, will and other affective factors will have an important influence on the occurrence, continuity of foreign language learning process and the selection and processing of learning content. It also has a regulating effect on the internal construction of learning. Therefore, foreign language learning is a process in which learners' cognition, emotion, and will affect each other and interact. It has a very important role. Diversified learning activities are the mediator of the interaction between the learner's internal cognitive construction and the external environment. The diversification of learning activities not only helps learners acquire a large amount of knowledge in a variety of representations, promotes the internalization of learning knowledge and internal cognitive processing, but more importantly, through speaking, memorizing, singing, acting, writing, Diverse foreign language learning activities such as painting and description can make individual cognitive activities explicit. On the one hand, this can encourage learners to further process knowledge, on the other hand, it can indirectly improve learners' self-regulation ability on learning, and then improve learners' autonomous learning ability.

#### **5. Conclusion**

As mentioned earlier, the occurrence of effective learning depends on the support of both internal and external conditions of learning. In classroom learning, the support of external conditions for learning is mainly achieved through teaching. A teaching process composed of a series of teaching events can have a significant impact on learning-it affects how learning occurs and the effectiveness of learning. Therefore, based on the analysis of the foreign language learning process, identifying the internal and external conditions that support foreign language learners at different ages can help us understand more clearly the internal and external conditions that promote learners' effective foreign language learning; what are these conditions; teaching What external conditions can be created to trigger the internal conditions of learner learning, and then positively affect the internal process of learning; which conditions need to be achieved through the design of diverse teaching and learning activities; the various characteristics of the online learning environment can In what ways do we support the creation of foreign language learning conditions for learners? Clarifying these problems can make the design of subsequent teaching activities clearer and the methods and ideas clearer.

#### **References**

- [1] Tai Y, Ting Y L. New aspect of technology adoption: a case study of students' self-made English-learning video[J]. *Asia Pacific Education Review*, 2016, 17(4):663-675.
- [2] Smith L. ICT for English in English ITE: An investigation into the ICT component of PGCE English courses[J]. *English in Education*, 2014, 48(1):63-75.
- [3] Adrienne C, Cynthia L. Factors affecting tertiary English learners' persistence in the self-directed language learning journey[J]. *System*, 2018, 76:170-182.

- [4] Cheung, Derek. The Combined Effects of Classroom Teaching and Learning Strategy Use on Students' Chemistry Self-Efficacy[J]. *Research in Science Education*, 2015, 45(1):101-116.
- [5] Tseng S C,Liang J C,Tsai C C.Students' Self-Regulated Learning, Online Information Evaluative Standards and Online Academic Searching Strategies.[J]. *Australasian Journal of Educational Technology*, 2014, 30(1):106-121.
- [6] Baker K L,Perkins J,Comber D P.International students and their experiences of Personal Development Planning[J]. *Active Learning in Higher Education*, 2014, 15(2):129-143.
- [7] Choi E,Lee J.Investigating the relationship of target language proficiency and self-efficacy among nonnative EFL teachers[J]. *System*, 2016, 58:49-63.
- [8] Yang Y,Volet S,Mansfield C.Motivations and influences in Chinese international doctoral students' decision for STEM study abroad[J]. *Educational Studies*, 2017(1):1-15.
- [9] Hwang W Y,Huang Y M,Shadiev R,et al. Effects of using mobile devices on English listening diversity and speaking for EFL elementary students[J]. *Australasian Journal of Educational Technology*, 2014, 30(5):503-516.
- [10] Yang H Y.Does Multimedia Support Individual Differences?--EFL Learners' Listening Comprehension and Cognitive Load[J]. *Australasian Journal of Educational Technology*, 2014, 30(6):699-713.