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# The Development Path of College English Education Ecosystem under the Background of Data Era

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Abstract: To discuss the reform of college English teaching from the perspective of ecology of education, we should pay attention to the reform and re-integration of various ecological factors in the teaching process, so that they can develop each other in coordination and promote the virtuous circle of college English teaching ecosystem. In the face of the current ecological imbalance of college English, through the re-integration of computer network and English courses, centering on this goal, teaching content is determined, teaching methods are selected, teaching advantages are brought into play, and teaching objectives are repositioned on the basis of relevant theories -- the cultivation of cross-cultural critical thinking ability, the creation of an informationized teaching environment, so that the college English teaching ecosystem can get a sound development.

Keywords: English teaching; Internet; Intelligence; Interaction; Teaching ecosystem

# 1. Introduction

In the context of the globalization of education, the internal driving force to further promote China's economic development is to train outstanding talents with international competitiveness, which is also an important guarantee for China to participate in global affairs and enhance the international discourse power and influence. From the perspective of the role college English teaching plays in undergraduate education, it aims to meet the needs of the country to train talents and serve the goal of training international talents. In the face of the current situation of college English ecology, this paper explores an effective path for the benign development of college English teaching ecosystem by reintegrating computer network with foreign language courses, repositioning the teaching objectives, determining the teaching content, choosing the teaching methods and creating the information teaching environment.

# 2. Imbalance of college English teaching ecosystem

College English classes are constantly changing, with the application of multimedia technology, the introduction of online learning platforms, the supplement of network resources, and more opportunities to communicate in class. However, the current college English teaching ecosystem still has the problem of ecological imbalance in practice, which is mainly manifested in the following three aspects:

#### 2.1 Is the failure to establish a healthy ecological niche for students and teachers.

The performance of teacher-oriented teaching still exists in the traditional teaching ecosystem. On the one hand, it ignores the differences in knowledge level and cognitive ability of students as different individuals, and does not give them the opportunity to take the initiative in knowledge construction, personalized learning and other aspects.

On the other hand, it does not provide students with various learning media and sufficient learning resources to create conditions to cultivate students' learning interest and carry out personalized learning. Many teachers fail to realize their multiple identities and functions in the new teaching environment as early as possible, and fail to change their roles in time, transforming themselves into the organizer of classroom tasks, the collaborator of students' learning, the guide of learning interest and the cultivator of learning ability.

# 3. Cross-cultural critical thinking is the core cultivation of international talents.

To form advanced foreign language ability, critical thinking ability and cross-cultural ability are indispensable. The two key elements are defined like this. Cross-cultural ability: "Respect the cultural diversity of the world, have cross-cultural empathy and critical cultural awareness" master the basic theoretical knowledge and analytical methods of cross-cultural learning; Critical thinking ability: "In the emotional attitude level, refers to studious, rational faith, respect for facts, prudent judgment, fair evaluation, sensitivity to inquiry, persistent pursuit of truth;" At the level of cognitive skills, it refers to the ability to elaborate, analyze, evaluate, reason, interpret evidence, concepts, methods, standards, background and other elements. The implementation of this teaching paradigm is not only necessary but also urgent for the cultivation of international talents.

# 3.1 The hierarchical theoretical model of critical thinking ability is translated as "critical thinking ability"

Which contains several advanced thinking abilities such as "abstract thinking ability, logical thinking ability, effective reasoning ability and argument evaluation ability" which should be cultivated in higher education. If translated into "critical thinking ability", it is suspected to be misleading. The hierarchical model of critical thinking ability divides critical thinking ability into two levels -- meta-critical thinking ability and critical thinking ability, emphasizing that the dominant and dominant role of critical thinking ability is subjective initiative. Critical thinking includes three cognitive skills, five cognitive criteria, and five emotional traits. Analysis, reasoning and evaluation are the three core skills included in cognitive skills. A good grasp of these skills is reflected in the process of critical thinking, the accuracy of thinking expression, the relevance of content and subject, the logic of reasoning, the depth of critical thinking activities and the flexibility of changing angles.

## 3.2 Theoretical framework of critical thinking training

It combines "four-layer learning identity model", "web2. 0 network learning environment", "action learning theory" and "blended learning theory". It emphasizes "student-oriented and teacher-oriented" and "the four-layer learning identity of learners is not simply divided in a certain learning stage, but cross-mixed in the whole learning process, so that students can constantly discover, analyze and solve problems in courses with different teaching objectives and contents, and always get the training of critical thinking ability. The theoretical framework serves as an action guide to build a benign college English teaching ecosystem. Therefore, it becomes a good support for the construction of college English teaching ecosystem.

# 4. Take culture as the selection principle

Carry out content-based teaching. In the teaching ecosystem, determine the teaching Content. "Content-based" teaching is not guided by the language skills syllabus, but Based on the knowledge that students are about to learn. Therefore, effective language learning is inevitably accompanied by the improvement of cultural literacy.

# 5. Based on language skills training

The cultivation of critical thinking ability is the core to determine the teaching objective in the teaching ecosystem. "What higher education advocates is to cultivate students' scientific questioning spirit and critical thinking ability". . . In college English teaching, it is embodied in guiding the cultivation of students' critical thinking ability in the process of using the target language, and special attention should be paid to the mind -- serving for learning.

# 6. The development trend of English teaching

#### 6.1 Man-machine multivariate feedback mode appears

With the advent of the era of big data, the popularity of Internet learning resources and the research and development of automatic essay scoring system, more and more scholars pay attention to the man-machine multivariate feedback method based on the online automatic essay scoring method and the traditional manual feedback method. In the English writing feedback mode, the effect of man-machine multivariate feedback mode on improving students' English writing text level has become the focus of the research. Using human-computer multivariate feedback model to focus on the development of students' composition quality and writing ability, stimulate students in teacher guidance.

With the help of peers, students can modify the writing text in a fully active state. Zhang Hua (2019:38) pointed out that the English writing evaluation method with man-machine multivariate feedback makes students' writing texts present a higher level in multiple language features, and students' writing level and ability are improved through man-machine multivariate feedback English writing evaluation. Although the human-computer multivariate feedback model has a positive impact on students' writing text revision, teachers should keep learning new technologies, give full play to their subjective initiative in the

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process of using automatic composition marking, and creatively modify English writing text.

#### 6.2 Task repetition becomes a new idea

With the expansion of our demand for high-level English writing talents and high-level writing texts, task repetition method, which has been widely used in oral English teaching, has attracted wide attention. Relevant scholars suggest applying this method to English writing teaching, that is, learners repeatedly perform the same or slightly changed English writing task after a period of time. Based on the theory of task-based teaching, language processing model, and attention resource choice hypothesis (Lei Pengfei and Xu Jinfen, 2018), task repetition method enables learners to constantly repeat and modify the writing text in the process of English writing, making the text richer and the language expression more specific. As task-repetition teaching method is widely used in oral English teaching, in English writing teaching, the research focus has been on the impact of task-repetition teaching method on learners and whether there are differences in the impact on learners at different levels. Lei Pengfei and Xu Jinfen (2018) pointed out through teaching experiments that task repetition teaching has a positive impact on vocabulary, syntactic complexity and accuracy, but a negative impact on fluency, and has different impacts on the complexity, accuracy and fluency of vocabulary and syntax of foreign language learners at different levels.

In general, task repetition teaching is helpful to improve learners' English writing level, but whether the effect on academic English writing is applicable to English writing remains to be further discussed. Therefore, it has become one of the important scientific research tasks for English teachers to explore the influence of task repetition on English writing.

#### 7. Conclusion

With language and culture as the teaching content, critical thinking training as the teaching goal, information technology factors introduced, MOOCS resources, the implementation of the teaching method of discussion and inquiry and the mixed teaching form of online and offline, the construction of the ecological teaching system means: The student-dominated, teacher-led humanistic classroom creates space for personalized learning and development, creates opportunities for student-teacher and student-student interaction, promotes the processing, generation, dissemination and sharing of knowledge, and focuses on how to achieve value co-creation and harmonious coexistence. From the perspective of ecology of education, coordinating the process of college English teaching and reforming the relevant ecological factors in teaching are the only way to build a benign college English teaching ecosystem.

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