

Research on the Path of Foreign Languages Education in Ethnic Universities from the Perspective of Educational Ecology

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Abstract: Under the context of promoting Chinese path to modernization and high-quality development of foreign language education in the new era, foreign language education in colleges and universities has entered a critical period of development, also facing new problems and opportunities. Educational ecology is based on the principles of ecology, especially the principles and mechanisms of ecosystems, ecological balance, and co-evolution, to study various educational phenomena and their causes and to grasp the laws of educational development. This article intends to summarize the driving force of the development of foreign languages in ethnic minority colleges and universities from Professor Wu Dingfu's basic principles of educational ecology: the law of limiting factors, the law of tolerance and the principle of optimality, the flowerpot effect, the Ali principle, and the principle of educational niche. It highlights the role of foreign language teaching in building a sense of community with a shared future for the Chinese nation.

Keywords: educational ecology; College foreign language teaching; routes

1. Introduction

The study of educational ecology originated in the West, with British scholar Ashby (E.) proposing the concept of ecology of higher education. However, the concept of ecology of education was first proposed by American educator Cremin in his book *Public Education* (1976); Domestic researchers Fang Binglin, Li Congming, Wu Dingfu, Zhu Wenwei, Lu Jie, Ren Kai, Bai Yan, Fang Ran, Fan Guorui and others have explored the ecological nature of education. Educational ecology is the study of the relationship between education and ecology. There's an inseparable relationship between social ecology, cultural ecology, family ecology, school ecology, and education, to examine the development of education system, early childhood education, national education, science and technology education, and vocational education from an ecological perspective, the ecological environment of education, individual ecology and group ecology, ecosystem and ecological balance, and other issues, the ecological environment, ecological structure, ecological function, ecological basic principles, ecological basic laws, behavioral ecology, ecological succession and evolution, and ecological detection and evaluation of education. Culture, population, resources, schools, environment, and classrooms are a tightly integrated ecosystem [1]. Overall, educational ecology is the study of the interrelationships between education and the overall social ecological environment, spiritual ecological environment, and natural ecological environment [2]. Education is the law and mechanism of the interaction between education and its surrounding ecological environment (including natural, social, normative, physiological and psychological). The ecological structure of education is a multi-level and multidimensional ecological system with a large scale, diverse factors, comprehensive functions, and numerous goals. This article intends to reveal the laws of education based on Professor Wu Dingfu's basic principles of educational ecology.

2. Current Situation of Foreign Language Teaching in Ethnic Colleges and Universities

The current challenges of the foreign language teaching in ethnic colleges and universities can be made salient from: student characteristics, teaching resources, teaching method, course content, evaluation method, teacher training, student support, technology integration, cultural integration, policy support, international cooperation, community participation, research and development, sustainable development.

(1) Student characteristics: In ethnic colleges, student groups often have diverse ethnic backgrounds and cultural identities, which brings unique challenges and opportunities for English teaching. On the one hand, there may be significant differences in students' exposure to English learning, basic abilities, and learning motivation; On the other hand, their unique cultural background and perspective can add rich content to English learning. (2) Teaching resources: Ethnic colleges may have gaps in funding, faculty, and teaching facilities compared to some comprehensive or top universities, which may affect the quality and effectiveness of English teaching. For example, foreign teacher resources may be limited and teaching facilities may not be modern enough. (3) Teaching method: The traditional teacher centered teaching method still dominates in many ethnic colleges, and students' active participation and interaction may be limited. However, with the advancement of education reform, more and more ethnic colleges are trying to adopt more diversified and interactive teaching methods, such as group cooperation, project-based learning, etc. (4) Course content: English teaching in ethnic colleges may focus more on basic grammar, vocabulary, and reading comprehension, while the cultivation of listening and speaking abilities and the application of practical English may be lacking. At the same time, the course content may not involve cross-cultural communication and the cultivation of an international perspective. (5) Evaluation method: Traditional examination and evaluation methods still dominate in many ethnic colleges, which may overly focus on students' language knowledge mastery and neglect the evaluation of language application and communication abilities. (6) Teacher training: English teachers in ethnic colleges may face limited opportunities for professional development and training, which may affect the updating of their teaching methods and concepts. (7) Student support: Ethnic colleges and universities may provide limited student support services, such as tutoring, counseling, and learning resources, which may affect students' learning experience and outcomes. (8) Technology integration: With the development of technology, some ethnic colleges have begun to try to integrate online learning platforms, multimedia tools, and social media into English teaching to enhance students' interest and participation in learning. (9) Cultural integration: English teaching in ethnic colleges can become an important platform for cultural integration, promoting students' cross-cultural communication and understanding by introducing content and perspectives from different cultural backgrounds. (10) Policy support: The support policies of the government and education departments for ethnic colleges may affect the development of their English teaching, such as funding, teacher training, and teaching reform. (11) International cooperation: Some ethnic universities may establish cooperative relationships with foreign universities to provide students with opportunities for overseas learning, internships, and exchanges, which can help improve their English proficiency and international perspective. (12) Community participation: Ethnic colleges may establish close connections with local communities and provide students with opportunities to apply English through community services and practical activities. (13) Research and development: The research on English teaching in ethnic colleges may be limited, but some colleges may be committed to exploring teaching methods and strategies that are suitable for their own students' characteristics. (14) Sustainable development: English teaching in ethnic colleges may face challenges of sustainable development, such as how to maintain teaching quality, adapt to changes in the educational environment, and meet the needs of students.

Overall, college English teaching in ethnic colleges is constantly improving and developing, but still faces many challenges that require reform and improvement from multiple aspects. At present, the talent cultivation goal of most ethnic minority colleges' foreign language courses is to cultivate patriotism, patriotism, humanistic literacy, solid knowledge and insight, and to cultivate talents with good comprehensive qualities for ethnic regions. It aims to cultivate more young people with cultural cultivation, humanistic care, creative vitality, and personality charm. Foreign language teaching in universities in the western region should consider the trilingual environment, fully recognize students' ethnic backgrounds, and the cross ethnic, interdisciplinary, and cross-cultural characteristics of foreign language teaching. Currently, foreign language teaching in universities in ethnic regions is often affected by factors such as remote geographical locations, uneven resource allocation, and weak teaching staff. For example, teachers' teaching concepts are outdated, and traditional exam oriented education concepts have a profound impact on English teaching in ethnic minority areas, resulting in overly single teaching content. In addition, outdated textbook content is a common problem that cannot meet the needs of students and the pace of the times. The overall quality of the university foreign languages' teaching team in ethnic minority areas is significantly low, mainly due to professional competence and research ability. The construction and updating of textbooks are slow, teaching resources are outdated and insufficient, and information technology coverage is low. Many teachers cannot effectively utilize information technology to carry out blended learning models.

3. Ecological Construction of Foreign Language Teaching in Ethnic Universities

This section analyzes the foreign language education in ethnic colleges and universities using the law of limiting factors, tolerance Law and the principle of optimality, flowerpot effect, Ali principle, and niche theory, to find the basic path for the development of foreign languages teaching in ethnic colleges and universities.

3.1 Law of Limiting Factors

Ecological factors are environmental elements and related organisms that have a direct or indirect impact on the growth, development, reproduction, behavior, and distribution of organisms in the environment. The law of limiting factors, also known as the barrel theory, refers to the fact that limiting factors determine the survival and development of organisms, that is, the shortest wooden board determines the capacity of the barrel, and in different specific ecological relationships, a certain factor may play the greatest role. At this time, the survival and development of organisms are mainly limited by this factor, which is the limiting factor.

There are three major limiting factors in the education system, including structural issues, management issues, and faculty issues[3]. The most important of these are the quantity, quality, and hierarchical structure of teachers, which are the limiting factors of this system, especially for foreign language teaching in ethnic minority remote areas. The number of teachers in a certain ethnic minority university is insufficient, and as the enrollment scale of the whole school gradually expands, the teacher-student ratio continues to be imbalanced. Secondly, the quality of foreign language teachers is not high. Existing teachers have low educational qualifications and teaching methods are not up to par with digital development. Excellent foreign language teachers are unwilling to teach in remote ethnic universities, especially for minority language teachers (such as Spanish, Russian, etc.) who are seriously lacking. Teachers with rich teaching experience and high teaching level are distributed in economically developed areas, which affects the implementation and development of education.

Therefore, in order to improve the level and quality of foreign language education in ethnic minority areas and to cultivate an excellent teaching team, it is necessary to start from the leading factors and adhere to the principles of choosing those who are capable and virtuous in the recruitment and appointment of teachers. A relatively reasonable employment mechanism should be established to transfer teachers with low teaching quality to other positions and introduce fresh blood through flexible recruitment measures. In summary, the following points need to be achieved: firstly, we need to strictly control the recruitment process, preferring shortage over excess. We cannot recruit teachers who do not meet professional development just because there is a shortage of talent in ethnic regions. Secondly, we need to strengthen the construction of our existing teaching staff, increase teaching and research training for young and middle-aged backbone teachers (funding participation in foreign language summer training, establishing a one-to-one assistance system, and formulating a system that requires a certain number of teaching and research projects to be applied for each year, encouraging teachers to improve their educational level, go out for further studies, and pursue doctoral degrees). Finally, we need to go out and to strengthen the connection with foreign language teachers in assisted universities, to achieve deep cooperation with foreign language teachers in developed regions, to strengthen teaching reform and research cooperation, and to continuously improve the overall quality of teachers. Finally, teachers should continuously strengthen self-learning, change their teaching concepts, and foreign language teachers, especially those in ethnic areas, should be “guardians in the wheat field”. Teachers should pay attention to grasping the timing and purpose of teaching, to become a beneficial ecological factor[4]. Foreign language teachers should create scenarios in the classroom, allowing students to imagine and express themselves, truly making students the masters of the classroom.

3.2 Tolerance Law and the Principle of Optimality

The law of tolerance refers to any ecological factor that is insufficient or excessive in quantity or quality, and when it reaches the tolerance limit of a certain organism, it will cause the organism to decline. For ecological classrooms, it refers to the tolerance range of individuals or groups in classroom teaching to various environmental factors at a certain stage of their own development[5]. In 1911, Shelford proposed the Law of Tolerance, which stated that the tolerance and endurance of organisms are very obvious, and failure to reach or exceed the tolerance will result in adverse or opposite effects. To be within the acceptable range of students, at a certain stage of their own development, students have their own limits to adapt to various influencing factors in the educational environment. Within these limits,

they can develop well, while beyond these limits, they may go in the opposite direction.

The output of teaching content should be determined according to the learning situation. Foreign language education in ethnic minority areas should consider students' place of birth, place of origin, ethnic type, family situation, admission scores, foreign language foundation, and negative transfer of mother tongue. The output of teaching content should be based on the learning situation and within the range of students' acceptance. That is to say, foreign language teachers should choose relatively easy teaching materials for newly enrolled ethnic students, design teaching situations that are in line with students' cognitive backgrounds, and use relatively simple teaching language. Teachers cannot provide fast-paced foreign language output throughout the class, without considering students' acceptance ability or tolerance.

The second is that the design of foreign language unit teaching should be gradual, and ethnic elements should be appropriately added before, during, and after class, such as videos, pictures, or written materials of ethnic cuisine, culture, festivals, sports, love, taboos, landscapes, etc. Students review exam essays in this authentic teaching environment, and the teaching content is within their acceptable range, which can better stimulate their interest in learning, reflecting the principle of moderation, to return the classroom to the students, to restore teaching to simplicity, and to enable students to reach the most suitable state of endurance. At the same time, what students can do, teachers firmly refuse to do; What students cannot do, teachers should be good mentors.

3.3 Flowerpot Effect

The flowerpot effect originally refers to the limited space and artificially controlled environmental conditions of a flowerpot as a semi artificial and semi natural small habitat, allowing crops and flowers to grow vigorously for a period of time. However, once out of this environment, it becomes difficult to adapt to external changes. The flowerpot effect of education, also known as the local habitat effect, is a widely discussed phenomenon in the field of education. It mainly refers to the process of education where, due to closed or semi closed educational environments and outdated teaching content and methods. Students are detached from the information environment and external resource systems outside the school, and immersed in the most accustomed and easiest educational methods and traditional teaching resources. They feel like they are living in an artificially designed "flowerpot", disconnected from real life, and lack the ability to cope with complex and changing environments. It can easily cause local ecological and environmental effects that generate resources[6].

Firstly, foreign language teaching in universities in ethnic regions should actively attempt to build an open educational environment, to strengthen connections and cooperation with the outside society, such as establishing more professional training and educational internship bases, carrying out more practical projects with ethnic characteristics, providing students with more practical opportunities and platforms, allowing them to step out of campus, to interact with society, and to understand reality. For example, a national language and writing promotion base launched by a certain ethnic minority university went to ethnic minority areas to carry out language and writing ability improvement training; young backbone teachers went to famous domestic universities during the summer to carry out education and teaching ability improvement training, and student summer vacation project teams went to ethnic minority areas to carry out the "Youth Red Dream Building Journey" summer practical activities. Secondly, it is necessary to update teaching content and methods: schools should keep up with the pace of the times, constantly update teaching content and methods, and focus on cultivating students' innovative thinking and practical abilities. Using ideological and political characteristic textbooks published by higher education publishing houses, etc.. we will digitally transform excellent traditional Chinese culture, ethnic minority culture, etc., introduce virtual scenes of ethnic museums, and construct immersive, interactive, and experiential classrooms. Finally, it's important to promote educational evaluation reform, to change traditional evaluation methods, to continuously innovate evaluation methods, to establish a diversified and comprehensive foreign language teaching evaluation system, and to focus on evaluating students' comprehensive qualities.

The flowerpot effect of education is an issue that requires high attention. Only by building an open educational environment, updating teaching content and methods, strengthening the construction of teaching staff, and promoting educational evaluation reform can we effectively overcome the impact of the flowerpot effect, promote students' comprehensive development, and improve their social adaptability.

3.4 Ali Principle

The Ali principle of education, in the context of educational ecology, mainly focuses on the different types of clustering that exist within educational groups, and emphasizes the need to find the optimal density to optimize educational outcomes. This principle is similar to the population density theory in ecology, which states that different biological populations have optimal densities in specific environments, and excessively high or low densities may have adverse effects on population growth and reproduction.

In the field of education, the specific application of the Ali principle is reflected in the following aspects: the clustering of educational groups: in the educational ecosystem, students, teachers, and administrators constitute different groups. There are various forms of clustering between and within these groups, such as classes, grades, schools, school districts, etc. The formation of different groups is influenced by various factors, including students' academic level, interests, personality traits, etc. The Ali principle emphasizes the need to find and maintain an optimal density in the formation and management of educational groups. This density ensures effective interaction and cooperation among members within the group, to avoid negative impacts caused by high or low density.

For example, in foreign language teaching in ethnic minority areas, the number of group activities should be reasonably set according to the actual situation of students. If there are too many participants in group activities, it may make it difficult for teachers to pay attention to the needs of each student and affect the quality of foreign language teaching; If the number of participants in group activities is too small, there may be a lack of sufficient peer interaction and competitive atmosphere, which is not conducive to the comprehensive development of students. At the same time, the Ali principle of education requires English teachers in ethnic minority areas to step out of their comfort zone, to prepare lessons carefully, and to memorize the teaching content in their hearts. Only in this way can they enter the classroom calmly, rather than simply relying on multimedia courseware and USB drives and blindly following the courseware, trapped in the quagmire of the "flowerpot" effect[7].

3.5 Niche Theory

The principle of educational niche refers to the unique status and function of each individual, group, and organization in the education system. This concept draws on the "niche" theory in ecology, which states that in an ecosystem, each species has its specific living space and role to ensure the balance and diversity of the system. In the field of education, this means that every student, teacher, school, and other educational organization has their unique contributions and developmental needs, and the education system should respect and support these differences to promote the healthy growth and development of all participants.

The principle of educational niche can be reflected in college foreign language teaching through the following ways. (1) Personalized teaching: each student's learning style, interests, background, and abilities are different, providing personalized learning plans and resources to meet their specific needs. (2) Diversified teaching methods: multiple teaching methods and activities are adopted to adapt to the learning preferences of different students, for example, to combine multiple sensory experiences such as visual, auditory, and hands-on operations, allowing students to interact with and use foreign languages in different ways. (3) Collaborative learning: cooperation and communication among students are encouraged, to utilize their respective strengths and experiences, to jointly complete learning tasks, and to enhance the social dimension of learning. (4) Cultural inclusivity: multicultural elements are incorporated into teaching content, respecting and showcasing the contributions of students from different cultural backgrounds, and promoting cross-cultural understanding and respect. (5) Feedback and evaluation: regular and diverse feedback mechanisms are provided to help students understand their learning progress and adjust teaching strategies based on their personal goals and needs. (6) Teacher development: the professional growth and development of teachers are supported, enabling them to better adapt to the constantly changing educational environment and student needs. (7) Resource sharing: an open resource platform is established where all students can access a wealth of learning materials and tools, including online resources, libraries, language labs, and more. (8) Environmental adaptability: a supportive and inclusive learning environment is created, which allows students to express themselves comfortably and confidently, while encouraging them to explore and challenge themselves. Through these measures, university foreign language teaching can better reflect the principle of educational niche, to promote personalized learning and overall development of students.

4. Summary

This article elaborates on the promoting effects of various factors in educational ecology on college English in ethnic universities. Education should follow the mechanism and principle of ecological balance and collaborative evolution, and pay attention to the relationship between college English education and other educational ecological factors. From the perspective of education and ecological theory, new directions for college English reform should be considered.

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