English Vocabulary Adaptive Learning in the Context of the Internet+

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Abstract: Since the implementation of the "Internet+" method, numerous fields have adopted and utilized "Internet+," which also facilitates the creation of adaptive learning systems. The purpose of this paper is to combine the context of "Internet+" with the essence and connotation of adaptive learning, and to propose a strategy for developing an adaptive learning mode for English vocabulary in the context of "Internet+," in light of the problems associated with traditional English vocabulary teaching methods in universities. We propose a strategy for developing an adaptive learning model for English vocabulary in the context of "Internet+" in the hope of enhancing university students' ability to learn and expand their vocabulary mastery, thereby improving their overall English quality and laying a solid foundation for future development.

Keywords: "Internet + education", college English vocabulary, adaptive learning

1. Adaptive learning in the "Internet+" era

1.1. The concept of adaptive learning

The selection of a learning style and method is based on human intelligent behavior. Additionally, it is a significant area of research for psychologists and educators. When viewed through a variety of lenses, including those of real-world issues such as the goal of learning, the learning process takes on a variety of connotations. Individual learning encompasses adaptive, mechanical, and didactic modes of instruction (Anton Vitko, Ladislav Jurišica, Andrej Babinec, František Duchoň, Marian Kľúčik,2010) [1]. Adaptive should be the subject's awareness of active learning (Iyengar, V. S., Apte, C., & Zhang, T. 2000 &Wang, Z., Yan, S., & Zhang, C. 2011) [2-3], rather than a passive process of knowledge acquisition, at this level of analysis. Learners fully meet their self-needs in this one procedure and monitor their self-learning to make focused selections of learning strategies and information.

1.2. The fundamental concept of adaptive learning in the "Internet+" era

By investigating the issue of adaptive learning via the Internet+, the reach of adaptive learning systems can be broadened further. From an objective standpoint, university students' adaptive learning processes in the context of Internet Plus must be reconstructed independently, while simultaneously improving the learner's subjective awareness. Learners can design learning plans and programs that are tailored to their own needs and provide effective communication and feedback in order to boost self-monitoring efficiency (Morze, Varchenko-Trotsenko, Terletska, & Smyrnova-Trybulska, 2021)[4]. Self-assessment incorporates organic modifications to the entire learning process based on the learner's personality. This is a critical foundation for a thorough comprehension of the learner's content and nature in the context of Internet Plus.

1.3. Adaptive learning's fundamental properties in the context of "Internet+"

To begin, adaptive learning is a paradigm of self-directed learning that emphasizes the process of learning based on the learner's subjective awareness. Adaptive learning provides a stronger emphasis on metacognitive monitoring in the context of "Internet+," forcing learners to align their learning objectives with their learning needs (Bromme, R., Pieschl, S., & Stahl, E. 2010) [5], pick successful learning tactics, and strengthen their self-learning abilities. Simultaneously, the manner in which self-learning is altered can fully reflect learning mastery. This is a critical safeguard for the learner's subjectivity. Therefore,

self-motivation, efficacy, and independence are all necessary characteristics of adaptive learning are suggested in the context of the Internet+.

Second, adaptable learning is a novel educational idea that takes the shape of personalized learning in the setting of "Internet+." Simultaneously, the learning paradigm emphasizes the importance of self-directed learning and the appropriate use of online resources (Lalitha, T. B., & Sreeja, P. S. 2020) [6]. As a result, learners develop new modes of learning that are more tailored to individual needs than centralised learning, which is more favorable to fully addressing those needs. Along with a reasonable selection of learning content, learners must be adaptable and convenient in their learning style selection, able to choose individualised learning solutions in relation to the actual learning content, to achieve personalised learning rather than being limited to existing learning content, to position the student's role flexibly, and to promote entrepreneurship comprehensively (Hou, M., & Fidopiastis, C. 2017;Sharma, N., Doherty, I., & Dong, C. 2017)[7-8]. The growth of a student's sense of self is fully represented in the development of the student's capacity for active learning. Indeed, this is the central and most critical aspect of adaptive learning in the 'Internet+' era.

Thirdly, among the important characteristics of adaptive learning in the context of the Internet+ is individualized instruction. As previously said, adaptive learning is human-centered and accurately represents the learners' learning needs. This approach embodies the concept of human-centered learning and teaching by designing the learning system around the learner's requirements (Tseng, J. C., Chu, H. C., Hwang, G. J., & Tsai, C. C. (2008), Wolf, C. 2002)[9-10]. This is represented in the individualized components of the learning process and the learner's feeling of subjectivity, which is a critical manifestation of the humanistic spirit that pervades the teaching process. Through adaptive learning, the learner's uniqueness can be fully realized, allowing the learner to tailor the method and content of instruction to his or her actual needs, and in particular, the learner can be guided in determining the learning objectives based on psychological characteristics, ability characteristics, and the learning environment. On this premise, learning styles and activities are scientifically planned and successfully promoted. These are the critical factors for optimizing individualized learning in practice. In short, it is critical to prioritize individualized learning in the context of "Internet+."

2. Difficulties associated with the typical method of teaching English language at the university level

In the traditional English vocabulary teaching environment, teachers positioned themselves as the primary subject of the classroom, neglecting the pupils as the primary body of knowledge and teaching in a fill-in-the-blank fashion (Brown, K. L. 2003)[11]. Teachers teach students the meaning of English vocabulary, how to apply it, and how to do it, but they fail to explain the connotation of English vocabulary to students and teach students efficient ways to memorize words. As a result, students develop only short-term memory and are unable to master English vocabulary from the root. This form of instruction is stereotyped and inefficient, failing to satisfy the criteria of contemporary university education and failing to accomplish the goal of teaching and delivering highly educated and comprehensive higher education employees to society. It is critical, therefore, that university English teachers fully embrace their job as educators, use classroom instruction to impart more valuable knowledge to students and to assist them in expanding their English vocabulary and improving their fundamental English knowledge. Simultaneously, as information technology on the Internet has improved, English has grown in importance in the virtual online world. Additionally, contemporary university students are eager for lecturers to adapt their teaching methods and approaches in order to fulfill their own personal learning development demands. However, teachers continue to rely on English textbooks and classroom time, failing to fully utilize the numerous online teaching materials available and thus failing to give students with high-quality instruction.

3. Development of an Adaptive Vocabulary Learning Model for College English in the Context of "Internet+"

3.1. Building big data on college English vocabulary

The personalised and adaptive learning model for university English vocabulary in the context of "Internet+" is based on the availability of big data, in which artificial intelligence analyzes learners' behavior, preferences, styles, and so on, and mines, sorts, and organizes the resulting big data to meet the needs of "personalized" and "adaptive" learning.

3.2. Developing a Personalized Adaptive Learning System Based on "AI+English Vocabulary"

As an innovative learning model, the "AI+ English vocabulary" in the context of "Internet+" necessitates the support of an innovative learning system. According to the criteria of 'personalized adaptive learning,' teachers should transfer power over vocabulary instruction and provide sufficient time and chances for students to utilize AI-based learning tools. The term 'appropriate decentralisation' refers to a balance between traditional English vocabulary instruction and adaptive personalization, which can help avoid 'blindness' in university English vocabulary instruction and effectively promote students' participation in 'independent, collaborative, and inquiry learning." Additionally, it is effective at promoting students' vocabulary accomplishment when they are operating in a 'autonomous, collaborative, and inquiry-based' mode.

3.3. Use "Internet+" technology to provide students with personalized teaching services

Students' learning needs to be assessed on a regular basis, and teachers can do so through daily achievement assessments or classroom performance. However, as teaching methods evolve, teachers must pay increased attention to the power of technology, utilizing the advantages of 'internet+' technology to summarize students' learning and create personalized learning plans for each student. Teachers can enter their pupils' vocabulary test results into a computer system and analyze their situation using big data and artificial intelligence. Professors of English at the university level can organize students to complete vocabulary examinations on the computer and use computer technology to visualize students' progress, making it easier for teachers to see how students are doing. Teachers can present students with a variety of possibilities for English vocabulary competitions, allowing them to communicate with other exceptional students, learn from their best learning approaches, and expand their own learning experience. Teachers should not rush the teaching schedule or the learning process, but should always maintain a people-centered teaching philosophy, ascertain the characteristics of English vocabulary learning in students directly from them, and create customized teaching plans for them, in order to more effectively accomplish the goals of teaching English at the university level.

4. Conclusion

Vocabulary is a critical component of a language, and mastering it is one of the primary obstacles of language learning. The web-based adaptive learning model is based on the student's cognitive system and the creation of his or her own unique learning corpus in the network, allowing the student to test, comprehend, and assess oneself or herself during the self-improvement process. Another style of instruction is mobile learning, in which students can learn more conveniently and freely on their mobile devices, as smartphones continue to grow in popularity, hence increasing learning efficiency and effectiveness. These two methodologies are summarized in order to facilitate, accelerate, and maximize vocabulary learning.

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