

Analysis on Factors Affecting the Individual Learning of College Students Based on Smartphone

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Abstract: With the popularity of smart phones, many scholars have discussed how to apply smart phones to college students 'personalized learning. Using smart phones, college students can break through the limitations of time and place, and can use fragmented time to study. The main user group of smart cell-based learning is mainly concentrated in the age group of 18 to 25 years old. Among them, college students account for the majority of students. College students have flexible thinking, rich imagination, and are willing to accept the characteristics of new things and pursue individuality. The acceptance of personalized learning is the main target group for learning using smart phones. However, in practice, it is found that college students pay less attention to learning resources in smartphones, and college students 'acceptance of learning resources in smartphones is not ideal. What factors affect the mobile learning of college students based on smartphones? It is a subject worthy of further study by educators. Based on the influence factors of individual learning of college students, this study analyzes the influence factors of individual learning of college students based on smart phone. Finally, it combines the influencing factors with the mobile learning level of colleges and universities at present, and puts forward some pertinent suggestions and strategies to promote the better development of smart phones in the environment of individual needs of college students, and provides reference for individual learning of college students.

1. Introduction

The 21st century emphasizes innovation, and society urgently needs a group of innovative talents. Our country is in the stage of the rapid development of new technology, the cultivation of innovative talents is more important. Especially in the stage of higher education, we must pay attention to the individual development of college students and cultivate the innovative spirit of college students. With the transformation of technology, the development of the economy and society, the deep integration of information technology and education, the rapid development of new learning methods such as open education and mobile learning, which use the Internet and mobile terminals to obtain knowledge, has made it possible for college students to personalize their learning, and personalized education and teaching models have been applied. It provides a good opportunity for China to cultivate innovative talents. The mobile learning of smart phones supported by Internet technology, because of the light, compact, convenient and fast use of equipment, the use of people gradually expand, has a broad development prospects. Therefore, it is of great practical significance to study the influencing factors of college students 'smartphone mobile learning from the perspective of personalized learning.

2. Related Concepts

2.1 Personalized Learning

Personalized learning refers to the process of adopting appropriate methods, means, contents, starting points, processes, and evaluation methods for students 'personality characteristics and development potential, and promoting students to achieve comprehensive development.

Personalized learning emphasizes the main position of learners in learning, and is based on the theory of “humanism”, metacognitive theory, multiple intelligence theory, and human all-round development theory. It is believed that learning is not only the process of personality display, but also the process of personality development, as well as the process of self-realization and pursuit of individuality. Personalized learning actually contains two aspects of content. On the one hand, the content is about education and teaching, and the learners all-round development is achieved according to the differences of each learner. In this process, educators must pay attention to the learners' physiological, psychological, and age characteristics. Pay attention to the learner's talents, talents, interests, hobbies and other personal factors, and make appropriate guidance in order to cultivate complex talents that meet the needs of society. On the other hand, from the perspective of learners, in the process of individualized learning, learners can make their own choices according to their own learning characteristics, learning abilities, learning needs, experiences, and preferences. Choose a suitable learning method, learning content, and control your own learning progress.

2.2 Mobile Learning

Mobile learning is an emerging research field in China. Researchers have given different definitions of mobile learning from different perspectives. From a technical point of view, Alexander Dye et al. proposed: “Mobile learning is a kind of mobile computing device that can effectively present learning content and provide two-way communication between teachers and students. Learning can occur at anytime and anywhere.” From the learner's point of view, some scholars define mobile learning as “learners use mobile devices to learn anywhere and at any time.” Summarizing the above point of view, the author believes that mobile learning is: learners can use mobile devices to obtain digital learning resources at anytime and anywhere under the support of mobile communication technology.

2.3 Mobile Learning Based on Smartphones

Smartphone-based mobile learning refers to mobile learning using smart phones, which is a mobile learning method that uses smart phones to obtain learning resources, teaching information, and related services. In a learning society, mobile learning based on smart phones can satisfy learners 'needs for learning at any time and at any time, and can also meet the needs of lifelong learning. It is worth further study by researchers.

3. Empirical Test of Influencing Factors of University Students Mobile Learning Based on Smartphone

The main purpose of this study is to explore the influence factors of mobile learning intention of college students from the perspective of personalized learning. The research first combined with the previous research results, from the perspective of educators, in the individual differences of learners, three research variables were extracted: mental load, self-efficacy, and personal innovation. This paper constructs the initial model of the influencing factors of mobile learning in college students from the perspective of personalized learning, and puts forward 10 research assumptions. Then, using the questionnaire method, the compiled questionnaire was distributed to the college students in the research school. Through their filling in, they obtained the first-hand research data of this study. After collating the data, removing the invalid questionnaire, entering the data of the effective questionnaire into the SPSS, processing and analyzing the data, checking whether the model and assumptions are established, and correcting the research model according to the results of regression analysis. Finally, the research results are analyzed in depth.

In order to ensure the accuracy and validity of the data obtained, the data were obtained by means of questionnaire survey. The author makes an in-depth study of the concepts, definitions, and connotations of the seven variables of performance expectation, effort expectation, social impact, mental load, self-efficacy, personal innovation, and willingness to use, and takes this as a basis. Under the perspective of designing personalized learning, college students will be able to interpret the meaning of variables in every question of designing the questionnaire based on the mobile

learning factors of smart phones. At the same time, relying on the more mature Likert level 5 questionnaire structure, for the questionnaire to fill in the choice, and to define the score of each option, and finally through the scoring situation to judge the individual learning perspective of college students based on the impact of smartphone mobile learning factors.

In order to give learners a clearer understanding of mobile learning based on smartphones, three parts of the questionnaire will be designed. The first part is to expound the connotation of mobile learning, so that learners have a clear understanding of the content of the questionnaire at the beginning of the questionnaire, so as to improve the accuracy and effectiveness of the questionnaire. In the second part, the content of the design mainly revolves around the adjustment factors involved in this model, including the learner's gender, the learner's grade, the learner's subject category, and the mobile phone system used by the learner. The third part is the main body of the questionnaire. The content of the design is mainly about the study of 7 variables, each variable has three questions, and a total of 21 questions are designed.

4. Analysis of Influencing Factors of University Students Mobile Learning Based on Smartphone from the Perspective of Personalized Learning

From the perspective of personalized learning, this paper analyzes the influencing factors of mobile learning for college students based on smartphones, and obtains the verification results. By collating and analyzing the collected data, a series of verification results are obtained. From the results of the analysis of the progressive multiple regression equation, three variables entered the regression equation according to the size of the influence, and the degree of influence of the three core variables, followed by performance expectations, social impact, and individual innovation.

Performance expectation has the greatest influence on mobile learning of college students from the perspective of personalized learning. This shows that if learners have a strong desire for learning and a desired purpose in the entire learning process, they think mobile learning is useful to them. The more it can help them learn and live and solve their life problems, the more learners will have a keen interest in mobile learning and the higher their willingness to use it. Educators should build more extensive, up-to-date and market oriented individualized mobile learning resources to meet learners 'different learning interests and hobbies, so that learners' individualized learning can be fully developed and provide strong support for innovation development. The social influence is second only to the performance expectation among the influencing factors, which shows that the willingness of people around the learner to use will greatly affect the learner's choice. It was also found in the questionnaire that college students are more willing to use mobile learning recommended by teachers or classmates.

In mobile learning development, we should recognize the role of educators and learning peers in which cannot be ignored. As educators, we must have a lifelong learning attitude, and we must be quick to master the resources, tools, learning methods and methods that are conducive to learners 'learning and development. We must give priority to them and recommend them to students so as to bring better learning conditions to learners. Promote the development of learners. Finally, personal innovation, research shows that college students are more interested in new things, the stronger the spirit of innovation, the stronger the individual's innovation, the easier it is to accept new technologies and new ideas, the stronger the willingness to use mobile learning. As educators, we should actively support and encourage students to innovate and study independently, make effective use of various mobile learning resources at home and abroad, and enhance our ability to adapt to the development of the times.

5. Strategies and Recommendations

5.1 Performance Expectations

The results show that performance expectation is the most influential factor in the mobile learning intention of college students based on smartphone. To promote the effective use of

smartphone based mobile learning in education; mobile learning developers should be aware of the importance of performance expectations and need to focus on how to make learners feel the most useful use of mobile learning. The author believes that in view of the level of development of mobile learning in China at present, it is not yet able to meet the individual needs of learners, to improve the quantity and quality of mobile learning resources, and to be able to update mobile learning resources in a timely manner. Synchronize learning content with the mainstream of social development, meet learners' latest needs and expand personalized support services for teaching content. The teaching content should not be limited to the teaching content of university textbooks, but also provide a variety of extra-curricular learning resources to help college students understand society, understand society, and grasp the needs of talents for rapid socio-economic development on campus. Meet the needs of immediate learning and interactive communication of college students; fully reflect the value of mobile learning.

5.2 Social Impact

Social influence is second only to performance expectation among the factors that affect college students' willingness to use mobile phone based mobile learning from the perspective of individualized learning. Therefore, practitioners and educators of mobile learning should pay attention to the importance of social impact when promoting mobile learning programs based on smartphones. Some learners with higher information literacy can be preferred to enter mobile learning programs first. Choose a part of the teaching content that is at the forefront and synchronized with the educational needs in order to increase the learner's interest in learning. Make this part of the information literacy learners like and willing to smartphone based mobile learning this new learning method to people around the use of. The attitude of teachers, relatives, friends and classmates around college students will affect whether college students choose to use mobile phones to study. We must make good use of this factor and expand the role of social influence on this factor. Enable low-information learners to enter mobile learning programs based on smartphones. At the same time, we must also pay attention to the influence of educators themselves, make appropriate guidance, encouragement and evaluation mechanisms for new technologies and methods, and promote mobile learning based on smart phones.

5.3 Personal Innovation

The results show that personal innovation has a significant positive effect on mobile learning of college students based on smartphones. The easier it is to accept a new approach to smartphone based mobile learning, the easier it is to promote the use of smartphone based mobile learning. When designing a mobile learning platform based on smart phones, we try our best to adopt a simple and convenient design to improve the ease of use and fluency of mobile learning resources for various types of mobile phones, so that college students can easily and quickly find their own learning resources. In terms of learning content, it is necessary to provide more intelligent personalized service support, and to aggregate learners' learning preferences based on information such as websites, platforms, and learning records that different learners browse during the mobile learning process based on smartphones. Generate corresponding learning resource information and recommend it to users of mobile learning based on smart phones so that they feel more humane mobile learning and promote the individual development of learners. When developing education and teaching, we should pay attention to the characteristics of college students' higher personal innovation ability, and make appropriate guidance and development to promote the development of college students' personal innovation ability, thus making individual development of college students possible. We should pay attention to the subjectivity of college students, put students as the main body and teachers as the leading teaching ideas into practice, adopt heuristic and exploratory teaching methods, consciously cultivate the ability of college students to think independently, and provide support for the cultivation of innovative talents with innovative spirit.

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