

# Research on Blended Learning Support Service Strategies of Open Universities Based on a Comprehensive Theory of Learning<sup>1</sup>

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**Abstract:** The Open University of China has adopted the blended learning mode of “online learning plus face-to-face tutoring” years before, but the learning effect has not been as satisfactory as expected mainly due to insufficient learning support services. Based on the Comprehensive Theory of Learning, i. e. , “two processes” and “three dimensions”, this paper provides an integrated perspective for open education, explores development strategies of learning support services, and then improves the effect of blended learning: at the early stage of blended learning, teachers should arouse learners’ emotions; at the middle stage, they need help learners to learn actively; At the later period, they provide cognitive support services for learners.

**Keywords:** A Comprehensive Theory of Learning; Open University; Blended learning; Learning support services

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## 1. Question

After entering the 21st century, the rapid development of mobile network, intelligent terminals and new media technology has fundamentally changed the way people learn. Online learning is developed rapidly. It relies on Internet technology to carry out distance learning, in which learners construct and create knowledge. Online learning is gradually integrated into the traditional face-to-face learning, and these two complement each other to become blended learning. With regard to the combination of the two learning methods, He Kekang(2004) states that blended learning means to mix the advantages of online and offline learning. It should not only play the leading role of teacher guidance, inspiration and monitoring, but also reflect the enthusiasm, initiative and creativity of students. Therefore, we need build a new teaching structure with teachers as the leading role and students as the main body, and create a learning atmosphere of "independence, inquiry and cooperation".

The Open University of China and its branches started using the Internet for online teaching, and implemented the mixed teaching mode through the mode of guidance, self-study and assistance years earlier. In recent years, they have actively explored a new learning model that focuses on learners and combines web-based independent learning, distance learning support services and face-to-face tutoring. This new learning mode is the exact application of blended learning in the field of distance education. However, although the open universities are among the first to have adopted the mixed learning form of "online learning plus face-to-face tutoring", the learning effect is not as satisfactory as expected. From the perspective of learners, due to the prominent contradiction between work and study, they cannot attend classes on time; they have low learning motivation and learning initiative. Only a small number of people who miss class watch videos, the number of page learning clicks is low, and online learning time is short; the quality and efficiency of learning are not high; there is little communication, insufficient interaction, low participation and passive communication merely as to obtain homework scores.

The reason for such unsatisfactory learning outcome is insufficient learning support service for learners, which is referred to as all the support provided to help and guide learners to carry out independent learning and improve their learning motiva-

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tion (Bai Qian et al. , 2018). Online independent learning is not merely a learning for learners on their own, learners' knowledge acquisition, emotional connection, interaction with the environment needs the university's learning support services, which should be of a powerful help to solve the problem of separating "teaching" from "learning" effectively. How to help learners carry out more effective blended learning must be based on the corresponding learning theory and teaching methods. Based on this, this study relies on a comprehensive learning theory proposed by Professor Knud Illeris of Denmark to provide an integrated perspective for open education, explore development strategies of learning support services, and then improve the effect of blended learning.

## 2. The Connotation of the Comprehensive Learning Theory

After generalizing several theoretical achievements in the field of learning research, Professor Knud Illeris of Denmark has developed a new learning theory – a comprehensive learning theory. Illeris (2010) believes that learning has three meanings. First, learning refers to the result of the learning process that takes place in individuals; Secondly, learning refers to the mental process that takes place in individuals; finally, learning can also refer to all the interaction processes between individuals, learning materials and social environment. All learning involves acquisition and interaction. The two processes are simultaneous and equally important (Figure 1). The acquisition process is a psychological process of learners' internal acquisition and processing. It deals with the functions of learning content and motivation, and provides and dominates the psychological energy necessary for the operation of the whole process. Through this process, new impulses are linked with earlier learning. The interaction process is the external interaction process between learners and their social, cultural and material environments. Only when these two processes are active at the same time can learning really take place.

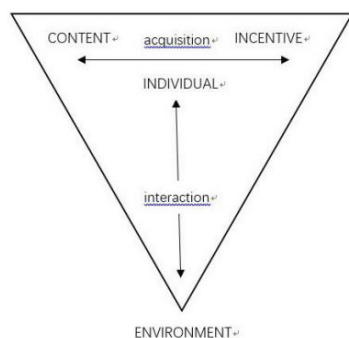


Figure 1 The processes of learning

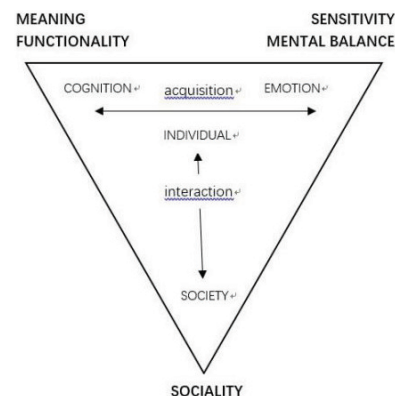


Figure 2 The dimensions of learning

The above two processes involve three dimensions: cognitive or rational, emotional, and social-societal (Figure 2). Content(cognitive or rational) – what has been learned, including knowledge, understanding and skills, to enable learners to construct meaning and ability, and then develop comprehensive personal functionality; Incentive(emotional) – what drives learning, including motivation, emotion and will, provides and guides the mental energy required for learning, and thus develops individual sensitivity; Interaction(social-societal) - the influence of the learning environment, which provides the impulse to start the learning process and helps individuals integrate into the community and society. Interaction is completed through empathy, communication and cooperation in activities, thus developing the sociality of learners.

Through the understanding of a comprehensive learning theory, we find that there are the following inspirations for the learning support service of open universities: the learning theory reveals the mechanism of learning, that is, learning is a process in which individuals obtain internal mental development in the process of interacting with the external environment. (2) Learning support services should focus on "integrity", that is, not only to provide learners with teaching content, but also to focus on "integrity" support from the three dimensions of emotion, behavior and cognition. (3) Learning support service should pay attention to "emotional support", that is, to support learners' learning interest, motivation, willpower, emotion, etc. Because, learners may encounter not only difficulties in learning content, but also emotional or emotional problems in learning, which will directly affect learners' completion of lessons.

## 3. Problems in Mixed Learning in Open Education

The theory of a comprehensive theory of learning reveals two processes and three dimensions of learning. In the process of learning acquisition, the two dimensions of content and incentive interact. The nature and intensity of mental energy will af-

fect the content learned, and the content of learning will also affect the motivation, mood and will of learning. In the interactive process of learning, all learning takes place in a certain situation with social and interpersonal characteristics. Through different forms of interaction, it becomes an indispensable part of learners. A comprehensive theory of learning provides a comparative analysis framework for the current open education learning support services. Therefore, we need to use an integrated perspective to understand online learning, so as to further improve the service content and capabilities. At present, the blended teaching of open universities has the following problems:

### **3.1 Lack of systematic design of content**

According to the theory, the content includes knowledge, understanding and skills, and the content of learning is an important factor to ensure the quality of education.

At present, the learning materials of open universities are mainly teacher-centered resources, which emphasize on the integrity of knowledge without paying attention to learners' work and life. Some are outdated, lacking in practicality and application and are inconsistent with the actual work. adult learners' needs are ignored.

Online teaching is not targeted enough. Teachers give compressed lectures simply in the order of chapters and sections of the textbook, or even only explain the test papers over the years. The learning content lacks pertinence and practicality. Teachers lack guidance, guidance and monitoring on learners' independent learning after class. The types of assignments for each course are complicated and confusing.

The efficiency of face-to-face teaching is low. Due to the low attendance rate of face-to-face teaching, in order to ensure greater teaching coverage, the main content of the course is often taught online, and face-to-face teaching becomes "redundant". The arrangement of the content of face-to-face lectures is in a dilemma: If the same content is taught again, the originally limited class hours are compressed; if it is taught differently, most students will not be able to come to learn it. Because of the inappropriate arrangement of face-to-face classes, students have little enthusiasm.

### **3.2 Inadequate attention to learners' motivation**

Adult identity makes adult learners' learning motivation particularly important in their preparation for learning (Zhu C. L., 2021). Adult learners have clear goals of improving their professional competitiveness through academic certificates, and re-selecting learning according to the needs of social role development, so their learning is practical and utilitarian. Practicability and applicability are the decisive factors of their judgment of courses' value. But open universities fail to pay attention to the learners' personal background and learning motivation, and do not establish contact with the learners' personal life, reducing the enthusiasm of learners.

Due to the concept of "easy in and strict out" in open education enrollment, there is a wide gap between students. A considerable number of students who have weak learning foundation, insufficient learning ability and lack of learning habits encounter great difficulties, and they are ready to quit. Theory rather than ability matters in examinations, and there are more knowledge content or rote learning, which increases the learning difficulty for adult students. However, many learners can pass exams by obtaining review materials a few days before exams, which gives rise to the idea that it is not important for people to study at ordinary times, because they can obtain course credits with the help of review materials. In this way, learners' awareness of active learning is even more insufficient.

The separation of time and space makes learners feel lonely. In a questionnaire, when learners were asked about "people who often contact in the learning process", two-thirds of the respondents chose "head teachers, assistant teachers or tutors", and most questions they asked were mainly non-academic affairs. One fifth of the respondents said they had no learning partners. It can be seen that most learners are still used to solving academic difficulties alone, but if they can't solve those difficulties, their learning perseverance will be hurt, the negative emotions will appear, and their learning behavior will stop suddenly.

### **3.3 Inadequate creation of interactive environment**

In terms of interaction, online learning includes not only the interaction between teachers and students, students and students, but also the interaction between learners and platforms, learners and digital learning materials.

The online interaction between tutors and learners is insufficient. The way of calculating workload only on the basis of teaching has greatly damaged the enthusiasm of teachers. In fact, adult learners in open education need more help. When adult learners seek online learning support, responsible teachers must spend a lot of time and energy answering those questions. But if this part of work is ignored, the enthusiasm of teachers is weakened, and learners are difficult to learn without the help of teachers, thus the self-learning turns out to be hard. The lack of design for online teaching and research activities cannot stimu-

late the enthusiasm of learners to participate.

Online community has not been formed, and good interaction between learners has not been formed. Teachers lack awareness of community organization, and their guidance of communication activities, content and feedback of students' discussion are obviously insufficient. Students lack enthusiasm for learning activities and have no targeted results. They focus more on the acquisition of final review materials and how to successfully pass the exam of a course.

The use of online learning platform "one network, one platform" is still not smooth and user-friendly. The system is unstable and often cannot be used normally, and online learning cannot be solved in time when encountering technical obstacles. The platform can record learners' learning data, but it cannot make specific analysis on learners' needs, learning styles, and their original cognitive level and ability.

Most courses of open universities are compulsory. The main builder of online resources is the headquarters of the Open University of China, and those resources cannot be edited or supplemented by anyone else. The resources by branches are in the subordinate position and are removed by the headquarters at the end of each semester. Resources are general at large, targeted resources in line with the learners' own foundation and characteristics fail to be constructed.

## **4. Strategies for improving learning support services in open education under a comprehensive theory of learning**

Wu Bin et al. (2021) divided learning support services into emotional support services, behavioral support services and cognitive support services according to a comprehensive theory of learning. Emotional support service mainly refers to stimulating learners' learning motivation and promoting learners' "willingness to learn" in terms of emotion; Behavior support services mainly promote learners' behavior to participate in learning activities through various "interactive" behaviors; Cognitive support service refers to all kinds of support provided to promote learners' cognitive development in the process of interaction with the environment.

According to the theory, blended learning activities can occur in the order of emotional arousal → behavioral participation → cognitive development. Specifically, first of all, we should stimulate learners' motivation from the emotional aspect to make them "willing to learn"; secondly, teachers promote learners to actively participate in learning activities through various interactions; finally, learners construct their own internal knowledge and develop their cognition.

### **4.1 At the early stage of blended learning, arouse learners' emotions**

Face-to-face tutoring. The acquisition process connects content and incentive. Motivation is the cause of learning. Teachers should carefully design face-to-face teaching, give full play to the advantages of it, narrow the emotional distance with students and trigger the impulse of their learning through teaching language, teaching style, teaching methods, and face-to-face interaction. Content is the basis of learning. When teachers formulate the overall framework of the curriculum, they need show the step-by-step curriculum with moderate difficulty to stimulate learners' interest and motivation in learning. By providing guidance for students, it is clear for learners what to learn, how to learn, and how to do homework in the whole learning process, so as to reduce their fear and intention to give up. Teachers use face-to-face classes to explain important and difficult points and answer questions to help learners overcome difficulties in understanding.

Online learning. The acquisition process in online learning represents that learners, motivated by their motivation, log on to the network platform, contact the learning content, and obtain psychological or mental improvement. Therefore, the first step is to provide learners with guidance on the use of the network platform, so that they can quickly master and use it. When carrying out online teaching, teachers should always pay attention to the motivation of the content. The reasonable and appropriate teaching design makes learners feel good. The comprehensibility of the content matches the learners' original knowledge structure, so that they have the motivation to continue learning. Then teachers set up gradient problems to challenge the learners' present cognition; We should also design practical projects from the real situation to stimulate learners' interest in inquiry; It is also necessary to enrich the presentation forms of learning content (text, animation, music, pictures, micro videos, virtual reality, etc. ) to meet the needs of learners with different learning styles. Teachers and students can take advantage of the real-time advantages of WeChat groups or QQ groups to actively respond to questions and reduce students' loneliness in online learning.

### **4.2 At the middle of blended learning, help learners learn actively**

In the middle period of blended learning, the focus of learning support services is to promote students to have real and

effective learning behaviors, so that students can actively participate in learning and independently manage learning. At this point, interaction will play a greater role. The interaction process represents the interaction between individuals and the environment, which is a necessary condition for learning. High quality content can stimulate learners' participation in interaction to a certain extent, and interaction can also deepen learners' understanding of the content (Jiang Wantong, et al. , 2017). Teachers organize students to extensively participate in the virtual community discussion of WeChat group or QQ group to form a learning community. Learning content is gradually accumulated in the public space through continuous interaction among members. Learning discussions that are practical, challenging, and in line with the common interests of learners will inevitably bring more participation and input. Once learning achievements get positive feedback, more positive learning behaviors will be triggered. Therefore, benign interaction has become a dynamic mechanism for the generation of content, so teachers should constantly guide learners to carry out dialogue and communication through the design of online activities. At the same time, teachers are still the leaders of learning activities, making sure that learners correctly understand or master knowledge. They should ensure that errors or deviations are corrected in a timely manner, eliminate environmental interference, ensure the correctness of the content obtained, and further develop the learners' internal knowledge construction. At the same time, the form and process of interaction will, to some extent, affect the motivation, and the level of incentive will in turn affect learners' participation in interaction. Therefore, when conducting online teaching, teachers should pay attention to the establishment and maintenance of the learning community, adopt simple and easy online interaction, close the relationship between teachers and students, and reduce the pressure of online social interaction.

### **4.3 Provide cognitive support services for learners at the later stage of blended learning**

When learners gradually form the habit of self-learning, teachers provide cognitive support services for them to promote the meaning construction of knowledge and further develop their cognition. For example, they use the rich learning resources on the Internet to provide more extensive learning resources with difficulty and depth, and provide learning materials for students to actively construct; they upload assignments or discussion topics to the community or learning platform for presentation or evaluation. In a word, at the later stage of blended learning, the focus of learning support services is to promote learners' internal meaning construction, that is, to connect learners' new and old knowledge, build their own knowledge network system or change their existing internal cognitive structure.

## **5. Conclusion**

Based on the comprehensive theory of learning of Illeris, this paper analyzes the current situation of learning support services in open universities from the perspective of two learning processes of acquisition and interaction, and three dimensions of content, incentive and interaction. It puts forward suggestions for improvement. The blended learning mode is suitable for the flexible and open educational features of the open universities, which is in line with the actual situation of adult learners. Optimizing learning support services and improving the quality of open education will become an important guarantee for running an open university.

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