

Research on Autonomous Learning from the Perspective of Big Data in Personal Learning Environment--a Case Study of Zhaoqing

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Abstract: The platform of personal learning environment is built. Knowledge communicators, such as teachers, monitor learners dynamically through the function of the platform, and pay attention to the performance of learners in the process of personal learning, including the overall learning progress, and the personal learning environment platform solves the problems that a single learner cannot completely solve. The platform provides a scheme for learners to learn from each other and guide learning. Learners establish learning knowledge base, and gradually complete learning knowledge activities through knowledge sharing and exchange cycle.

1. Introduction

With the development of big data technology, it is normal for college students to find new knowledge and manage their own learning from the network platform. With the development of big data technology, for college students, the change of their own learning should be carried out faster to keep pace with the development of education. In the context of big data, virtual learning environment can foresee the future of autonomous learning Development opportunities, although college students still have to face many difficulties in autonomous learning in big data environment, such as highly relying on mobile applications and social network tools, ignoring autonomous learning, neglecting to manage their own learning data and updating their task progress in time. Based on the investigation of Zhaoqing University's personal learning environment, this paper concludes that knowledge acquisition is an important process of autonomous learning from the perspective of big data, which highly depends on the purpose of learning, useful learning tools, self-monitoring and control of learning objectives.

2. Research Background

In recent years, some changes have taken place in the learning style of college students. College students often look for new knowledge and management learning from the Internet. People's research on the personal learning environment (PLE) has attracted extensive attention [1]. The personal learning environment mainly considers three levels: 1) knowledge information management, 2) personal knowledge management, and 3) information interaction. From the perspective of big data, the new teaching organization form and teaching mode permeate the constructivism teaching concept, emphasizing the acquisition of knowledge and information

through the Internet in teaching. In the aspect of information technology, advanced teaching tools provide diversified support for colleges and universities. In Chinese colleges and universities, the open-source curriculum management system is increasing, and the target platform for users to choose is also increasing. It will continue to increase from the beginning of 2020. Therefore, the process of understanding knowledge is more important than the process of acquiring knowledge, which is an important change, because it is difficult to understand new knowledge through the Internet. Therefore, we add an agent role in the research of autonomous learning from the perspective of big data in personal learning environment, to deal with the task of coordinating teachers and students, and help students learn more effectively in personal learning environment. Easy to understand knowledge [2-4].

3. Application Strategies of Autonomous Learning

At present, the evaluation of autonomous learning environment is still mainly focused on the evaluation of achievement. The difference between autonomous learning and other traditional standard learning from the perspective of big data of personal learning environment is that learning process is usually based on the establishment of autonomous learning data environment for learners by teachers, such as the learning strategy path scheduled to start in the individual learning environment, and according to the learning process. The results of the evaluation of learning path adjustment. In the process of learning effectiveness and results, it is necessary to change some concepts to support self-regulation learning, and it is equally important to learn what to learn. Especially, the process is completed by the learner itself. The teacher role is mainly to collect the required data set according to the learning process recorded by the learner data, especially the self-regulation, whether it conforms to the original learning objectives and carries out the process. Assist learners to adjust [5].

Mobile application data-based learning new knowledge and management learning. From the current concept of personal learning and target learning, teachers find that students in interest groups spend a lot of time discussing the progress of learning. In some teamwork, there are still difficulties in communication, such as the latest information obtained by each student or the progress of shared learning, they must rely on mobile applications and social networking tools. When teachers manage large classes, such as 50 students in Zhaoqing University class, and the number of groups with only one course per semester may exist several classes. Therefore, students also have problems in personal learning. Teachers need to manage and update the learning task progress of new students at any time in their personal learning environment, and move and apply data-based learning new knowledge and management learning to teaching. Teachers bring new learning opportunities and challenges. Big data environment is very useful to manage students' knowledge according to their personal learning environment. Through software deployment, the personal student environment is more meaningful and has a great improvement space, which can successfully solve the problems faced by teachers and students in the management knowledge [6].

In order to solve the problem of self-regulation, learners need to design and construct a learning environment according to their personal interests and learning tasks. Learners use this learning environment to guide themselves to learn and achieve their own teaching objectives. From the perspective of implementation, the concept of learning environment meets the requirements of education, and the learning environment is constructed. As a platform for collecting personal learning data, personal education platform and teacher learning monitoring tools, compared with traditional learning methods, the individual learning environment is learner centered, that is, students are responsible for data collection and learning according to learning tasks, emphasizing metacognition in learning. At the same time, for learners, too much freedom may have the opposite

effect. At this time, teachers need to adjust. We find the importance of self-regulation according to the questions. Therefore, teachers adjust their learning objectives by setting their own deadline or monitoring the learning data of learners. [7-8] therefore, the learners' general tasks need the help of teaching assistant adjustment. Through the survey, respondents generally believe that teachers help learners provide a correct guidance between self-learning and guidance in order to make learners better meet their learning requirements and objectives.

The potential knowledge of individual learners is transformed into the knowledge they understand. Personal learners have expanded their existing knowledge management research when creating personal learning data. Over time, how to transform these personal learning data into the knowledge they understand becomes particularly critical. They are divided into three situations: the way that individual scholars acquire knowledge is to transform their own understanding into their knowledge; personal scholars acquire knowledge by dividing them. The knowledge acquired by communication is acquired by personal scholars through the passive reception of teachers' roles. The acquisition of these three ways makes knowledge more intelligent or passive in our learning process, which indicates that the management of knowledge in the personal learning environment should also take into account the access to knowledge in the big data environment, and allow for better management of the process of acquiring knowledge and communication with other learners. In addition, it is necessary to consider the establishment of a common knowledge base, in which individual learners should seek information and analysis, and also share knowledge to other individual learners. This process means providing some reference for other individual learners to obtain knowledge. Of course, in practice, knowledge base is a collective effort to manage knowledge and a platform for each member to share knowledge. The data knowledge base information is finally received and understood by the required individual learners. Especially, whether the information obtained above is close to the bottleneck of the knowledge learned now, and whether the current problems have been successfully solved, which helps the individual learners to know Knowledge transformation.

4. Advantages of Personal Learning Platform from the Perspective of Four Big Data

Autonomous learning is not a process of passively receiving knowledge of knowledge base, but a process of constructing knowledge meaning according to their actual learning needs. It emphasizes the process of knowledge processing and transformation, from passive receiving knowledge to actively cultivating self-consciousness. Therefore, in the individual learning environment, autonomous learning should not only complete knowledge learning, training skills and develop their own comprehensive quality, Become an active participant and knowledge builder in learning activities. Autonomous learning environment is comprehensive and abstract:

Individuation: autonomous learning environment has greater flexibility and autonomy for learners. They can customize their choices, build learning knowledge base according to the actual learning content and progress, and master their own learning effect. In this way, learners have more independent choice, improve learning efficiency according to their own learning methods, and knowledge resources are not limited by time and space, improve resource utilization rate, and benefit students to play their initiative in autonomous learning. They can use all the resources of learning platform to learn according to their learning interests and learning methods, and it is conducive to the long-term development planning of students' learning.

Interaction: learning team members can conduct online learning discussions and obtain learning feedback information. At the same time, learners build a learning resource database through the autonomous learning platform, courseware or learning resources can be shared by authorized learning users.

Real time: the knowledge learning environment is constructed with resources as the center, breaking through the limitations of textbooks, learners become the main body of learning, and teachers become supervisors, facilitators and organizers of learners. While searching for information resources, learners gradually cultivate the ability to acquire information, and promote the learners' ability of cognition, inquiry and exchange of information. The construction of knowledge learning environment platform based on resources can realize human-computer interaction better and facilitate the development of learning for learners.

Regulatory: because the learning process has a certain period, it is beneficial to supervise the whole process of students' learning on the platform through personal learning platform, and enhance the time benefit of individual learning. In the actual learning process, teachers can manage through the platform on the one hand, on the one hand, they can know timely and emphasize people-oriented. This can not only improve the initiative of students' learning, but also make the learning process manage, coordinate the relationship between students' learning, management and teacher supervision, and play a good role in the supervision of teachers.

5. Conclusion

From the perspective of big data of personal learning environment, autonomous learning takes learners' learning activities as the center, emphasizes learners as the learning theme, and transforms external knowledge and learning content into learners' internal knowledge structure through big data platform of learning environment. In this process, personal learning environment is to promote individual learners' learning, improve group assistance ability, and improve individual learners' ability the interaction ability between teachers and students is mainly based on the organization of big data knowledge content, ignoring the specific passive receiving of teaching knowledge, and providing great flexibility for autonomous learning through learning activities and learning strategies.

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