

# **Research on Risk Prediction Model Construction and Learning Strategy of Distance Learning**

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*Abstract:* With the popularization of distance education, the monitoring and improvement of distance education quality has become the focus. There are many distance learners, but only a few teachers or their teaching team. The teacher-student ratio is very low. Coupled with the teaching method of time-space isolation, it is more and more important to study how to reduce the risk of failing in learning, stimulate learning motivation and help teachers realize personalized teaching in the case of time-space separation.

Key words: distance learning; risk prediction; learning strategy

#### 1. Introduction

Since the development of distance education, it has experienced three main development stages, each stage has its specific form, and the means of change are different. From the initial correspondence education stage to the development stage of modern distance education, distance education has well adapted to the development of society, and each development stage has made important contributions to the development and construction of our society. Based on the theme of "distance education", "learners" and "learning strategies", the author conducted a literature search on the China Knowledge Network, and found that most of the literature is related to distance education learners and learning strategies, which fully explains the importance of the research on the learning strategies of the distance education in the current development.

#### 2. Concept Definition

#### 2.1 Distance education

Distance education is mainly for adults, and adults are the most important part of distance learners. Therefore, this study regards distance education learners and adult education learners as the same category and no longer distinguishes them. Distance education can be traced back to Britain in the mid-19th century. Isaac Pittman is the first teacher to send curriculum materials to students by letter, which has become the symbol of the origin of correspondence education. Distance education appeared after the development stage of correspondence education. Distance education refers to an educational environment constructed by using distance communication technology. In this environment, students can carry out independent learning, enhance ability, improve quality and develop emotion through continuous interaction with teachers.

#### 2.2 Learning early warning

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Learning early warning refers to comprehensively evaluating students' background information, learning behavior, test scores and other factors according to certain standards, sending prompt signals to students and teachers according to the evaluation results, and providing effective and targeted intervention suggestions in time. Online learning early warning is to mine and analyze the big data generated in the process of online learning, understand learners' learning situation and timely find the problems existing in learners' learning, so as to give tips or warnings to difficult learners, urge and guide learners to successfully complete online learning.

## 3. Construction of Distance Learning Risk Prediction Model

Taking the learners of four courses offered by the college of network and continuing education of a university from 2016 to 2017 as the data collection sample, including two liberal arts courses: preschool hygiene and preschool education history, and two science courses: hydraulics and engineering geology. This study will collect learners' personal background information data and online learning behavior data as research samples. Learners' personal background information table includes student number, name, gender, nationality, previous education, age, major, occupation, learning center name, student type, online learning duration, online learning times, usual homework scores and online discussion times. The types of students' enrollment include online education, distance education and correspondence education. The student assignment submission form includes the student number of the learner, the title of the completed assignment, the total number of assignments submitted each time, and the last date and time of submitting the assignment.

#### 4. Optimization and Suggestions of Distance Education Learners' Learning Strategies

4.1 Establish correct learning values and stimulate learning interest

Professional interest shows significant differences in six items: auxiliary tool strategy, information literacy strategy, reflection and summary strategy, examination strategy and emotion management strategy. The interview results also fully illustrate the importance of learning interest. Learning is not only a matter of a person for a period of time, but also a matter for a person's lifelong development. Distance learners themselves should establish correct learning values, cultivate their own learning interest and maintain high learning interest, so as to maintain a long-term and stable learning state, and ensure the smooth completion of their studies.

4.2 Enhance computer learning ability and cultivate good information literacy ability

Overcoming difficulties and maintaining learning self-confidence show significant differences for all seven learning strategies, and good computer learning ability shows significant differences for four learning strategies: auxiliary tool strategy, information literacy strategy, reflection and summary strategy and emotion management strategy. Therefore, in distance learning, it is very important to maintain confidence and use computers correctly. Cultivating good information literacy ability is of great significance to improve the learning effect of distance education learners. Try more new things, don't be afraid, dare to practice and ask why, overcome the fear of learning with computers, and learn step by step and in a planned way.

4.3 Strengthen the training of examination skills and conduct reflection and summary in time

In distance education, examination is the last link in the whole distance learning. This link is not only the final link in the whole distance learning, but also one of the standards to test the learning effect of learners. The survey shows that different professional reasons for registering for the examination only show significant differences in one item of examination strategy, and computer mastery ability shows significant differences in examination strategy. Therefore, measures should be taken to strengthen the training of examination skills and improve the level of using computers in order to improve the quality of distance education as a whole.

## 5. Conclusion

All in all, distance education learners should establish correct learning values, correct learning attitude, and use all favorable factors to stimulate their own learning interest. We should enhance computer learning ability, maintain tenacious learning willpower, deal with the difficulties encountered in the process of computer learning, and cultivate good information literacy ability. This ability is not only reflected in computer operation, but also in daily learning and life, including the understanding of knowledge, the processing of learning resources, the extraction of network data, etc., which generally reflects the comprehensive information processing ability of distance education learners.

#### **Conflicts of Interest**

The author declares no conflicts of interest regarding the publication of this paper.

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