A study on optimizing the experience of mobile-based examination products

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Abstract

Issues such as the increasing number of graduates from colleges and universities and the difficulty in finding employment have led to an increasing number of students taking the exam. The impact of NCCP has made online learning a popular way of learning today. However, online learning requires a high level of concentration and self-control from the people who use it. Therefore, the excellent experience of mobile exam study product is an important guarantee of the platform for the using population. The article takes the research direction of exploring the methods to optimize the online learning experience and promote the online learning behavior of the study population, and provides a reference for the mobile study products.

Keywords

Mobile exam products, user experience, online learning.

1. Background

Online learning can be carried out on a large scale at a lower cost, and can get rid of the limitations of time and space, which is conducive to the realization of educational equity [1], and is the future direction of learning.2019 New Crown Pneumonia has caused great inconvenience to individuals and society, including the interruption of traditional face-to-face teaching methods. Online learning provides the opportunity for a wide range of learners to continue learning at special times, and online learning itself is expanding at an unprecedented scale. Through the data released by the Ministry of Education of the People's Republic of China we can find that in recent years the number of enrollment in the national postgraduate examination has been increasing year by year, and only in 2024 the number of enrollment in the examination and research program has decreased compared to the previous two years. In summary, it can be seen that the huge system formed by the examination will form a huge market for the study of the examination, and it is of practical significance to provide excellent online learning experience for the study of the examination crowd.

2. User Experience Overview

User experience is a concept coined by Dan Norman in the 90s of the 20th century and refers to the overall experience that users feel when using a mobile application. A good user experience can increase user satisfaction and loyalty, increase user frequency and retention. Researchers and practitioners in the field of user experience generally agree that user experience is dynamic, scenario-based, and subjective [2]. As a comprehensive concept, it needs to be comprehensively considered from the aspects of interface design, navigation design, feedback mechanism, performance optimization, user participation and multi-platform adaptation to provide user satisfaction and ease of use. The system, the user, and the usage

environment are considered to be the three key factors that affect the user experience. The research [3] shows that the application of behavioral design theory to the user experience design process can be used to improve the online learning user experience and self-learning level of the graduate school entrance examination population, and to enhance the market competitiveness of the postgraduate examination products.

3. User Problem Summarization and Solution Design

3.1. Summary of Issues

Through the research, it is found that the postgraduate entrance examination population mainly faces the following problems in the preparation stage: the postgraduate examination learning app on the market lacks reasonable guidance for postgraduate examination planning and does not provide customized course recommendations for candidates. Compared with offline learning, there is no better learning atmosphere for online postgraduate examinations, and there is also a lack of peers who can supervise, so it is difficult to get answers when encountering difficulties.

The Postgraduate Entrance Examination App is a mobile application specially designed for postgraduate candidates, designed to help candidates prepare for the postgraduate examination efficiently, providing a variety of exam information, learning resources and preparation tools. The following problems may occur during use or development:

Incomplete information acquisition: Some Postgraduate Entrance Examination Apps may have the problem of incomplete information acquisition, including incomplete information such as test time, test subjects, and test syllabus, which cannot meet the needs of candidates.

3.1.1. The quality of learning resources is uneven

The quality of learning resources provided by some postgraduate examination apps is uneven, and some of the content is outdated or not authoritative enough to help candidates prepare for the exam effectively.

3.1.2. Poor user experience

There may be problems in the interface design, navigation structure, feedback mechanism and other aspects of some postgraduate examination apps, and the user experience is poor, which affects the user's user experience and learning effect.

3.1.3. Single function

Some postgraduate examination apps may have a single function, only providing basic exam information or learning resources, lacking personalized customization, interactive communication and other functions, and cannot meet the diverse needs of candidates.

3.1.4. Data security issues

 Some postgraduate examination apps may have data security problems, including risks such as leakage of users' personal information and theft of accounts, which affect the trust and sense of security of candidates.

3.2. Functional design

The mobile exam product is an online learning platform centered on the exam population. It aims to improve the online learning experience and promote independent learning behavior. Based on this goal, while optimizing the functions of online courses, the mobile exam product needs to provide some auxiliary learning functions to meet the needs of the exam population, such as helping to plan for the exam, establishing a community for the exam, providing knowledge video sharing, visualizing the learning situation, and guiding the self-regulation of stress. In response to the above needs, the user requirements are converted into the following specific function points (Table 3-1).

Table 3-1

core functionality	Video Board, Resource Leaderboard, Exam Planning, Question & Answer, Study Results Monitoring & Advice, Stress Management, Video Notes & Notes Read Aloud, Study Levels, Study Challenges
Basic Functions	Video Board, Resource Leaderboard, Exam Planning, Question & Answer, Study Results Monitoring & Advice, Stress Management, Video Notes & Notes Read Aloud, Study Levels, Study Challenges

The following are some possible functional design suggestions, developers can design and optimize the functions according to the actual situation and user feedback, so as to provide better services and experience to candidates.

3.2.1. Examination information inquiry

provide the latest information such as the time, subjects, and location of the postgraduate examination, so as to facilitate candidates to obtain relevant information about the examination in a timely manner.

3.2.2. Recommendation of learning resources

recommend relevant learning materials, teaching materials, reference books, etc. according to the candidate's major and interests to help candidates prepare for the exam efficiently.

3.2.3. Online courses

Provide professional online courses, including video courses, live lectures, etc., to help candidates systematically learn the knowledge of various subjects.

3.2.4. Practice of mock test questions

Provide mock test questions and real questions of each subject, support candidates to practice and self-test, and help them understand their preparation for the exam.

Study plan development: Support candidates to make study plans, remind candidates to review and practice on time, and help them arrange their preparation time reasonably.

3.2.5. Q&A interaction

Provide online Q&A function, so that candidates can ask questions to teachers or other candidates at any time to promote learning interaction and communication.

3.2.6. Preparation information

Provide the latest preparation information, test dynamics and other information to help candidates understand the test policies and dynamics.

3.2.7. Personalized customization

Support candidates to customize according to their own majors and exam preparations, and provide targeted learning resources and suggestions.

3.2.8. Data analysis report

Generate data analysis report according to the candidate's learning situation and practice performance to help the candidate understand his weaknesses and improvement direction.

3.2.9. Postgraduate Entrance Examination Community

Establish a postgraduate examination community, so that candidates can communicate with each other, share experience and information in the community, and enhance the learning atmosphere.

4. Summary

Under the influence of the epidemic, the use of online learning is becoming more widespread. Meanwhile, the market of examination and research is continuing to heat up, and the expanding demand for examination and research study is necessary for research. The article puts forward the corresponding functional design for the problems faced by the online learning of the examination and research crowd, aiming to explore the design methods to improve the online learning experience and learning behavior of the examination and research crowd by driving the mobile examination and research products through the theory of user experience and behavior design. It can effectively solve the problems of online learning for the examiners, provide excellent online learning experience, and provide reference for mobile examiners.

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