

# Influencing Factors and Recommendations for the High-Quality Development of Online Learning

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**Abstract**—With the development of information technology, online learning has gradually become an important component of higher education. However, the factors influencing the high-quality development of online learning are quite complex. This study explores the impact of student psychological factors, teacher factors, and course quality on online education. The main objective of this research is to analyze and reveal the effects of students, teachers, and course quality on online learning effectiveness. At the same time, to promote the high-quality development of online learning, it is necessary to improve the course management system in colleges and universities, enhance teachers' online teaching capabilities, and utilize multimedia and interactive teaching methods to increase the attractiveness and effectiveness of courses. Additionally, governments, schools, enterprises, and society must work together to focus on student psychology, strengthen the role of teachers, and improve course quality in order to cultivate innovative talents that are adaptable to future society.

**Keywords**— Course Quality; Higher Education; Online Learning Effectiveness; Student Psychological Factors; Teacher Factors.

## I. INTRODUCTION

With the rapid development of computer and internet technologies, online learning has become a mainstream learning method, supported by national policies and driven by social needs, which to some extent compensates for the shortcomings of traditional education. Internet technology has been used more and more in the field of education since the late 20th century. This phase marks a transformation in teaching models under the influence of network technology. The reform of teaching models during this phase is primarily the result of upgrades in educational technology. Internet technology has changed the way people acquire, learn, and disseminate knowledge, leading to unprecedented changes in teaching models. University students can engage in online learning through mobile devices such as smartphones, tablets, and computers. As a new mode of learning at any time, online learning has been widely promoted in teaching and learning.

## II. LITERATURE REVIEW

As online teaching is being accepted by more and more people, educational departments and schools have organized various online courses. The essence of learning is the continuous improvement of students' cognitive levels. However, while online learning as a new educational model has many advantages, it also has many disadvantages.

### A. Student Psychological Factors

Understanding the psychological state of students engaged in online learning is crucial for enhancing the effectiveness of their online educational experiences. In this new form of education, online learning allows individuals to engage in study at any time and from any place. Although online learning offers the opportunity to acquire a wide array of knowledge, students often find that they need to invest more time in the process, especially when encountering challenging material. Some sections of the content can be particularly difficult to grasp, which can make the learning experience even more arduous. This phenomenon arises from the self-directed nature of online learning; as independent individuals, students are influenced by various psychological factors to differing extents, which can significantly affect their learning outcomes in online courses. Additionally, during their internet-based studies, some students may struggle with motivation, leading to distractions that detract from their focus on learning. Furthermore, a lack of self-discipline among certain students can make it challenging to resist the allure of various entertainment resources available online [1]. These factors contribute to the difficulties students face in achieving satisfactory learning outcomes in an online learning environment.

### B. Teacher Factors

The learning process for students is heavily reliant on the guidance provided by teachers. Online learning differs significantly from traditional face-to-face classroom instruction, representing a new mode of education [2]. In traditional classroom settings, teachers typically employ lecturing and instructional methods, which enable them to take a leading role in the learning process. This approach allows teachers to supervise the entire teaching and learning experience, facilitating their understanding of the educational process and students' skill acquisition. Moreover, teachers can interact with students, assisting them in better accomplishing their learning tasks and adjusting their teaching plans through various instructional strategies to enhance learning efficiency.

Although knowledge can be disseminated through innovative teaching methods, such as videos, audio recordings, and animations during online instruction, the emergence of mobile devices like smartphones and tablets has transformed the way teachers deliver content. Educators now leverage remote online platforms to impart knowledge, breaking free from the constraints of time and space.

However, during online learning, the physical distance between students and teachers can hinder effective communication and interaction, leading to a lack of practical hands-on skills that are better developed through face-to-face engagement. The interaction between teachers and students in an online learning context is often insufficient [3]. When online instruction mimics the lecture-based approach of traditional classrooms, the absence of an engaging campus environment and conducive classroom conditions can result in a lack of real-time interaction between teachers and students, diminishing the collaborative learning atmosphere. The reliance on singular formats, such as video presentations, can easily cause students to lose focus and feel disconnected from their learning experience. Consequently, student engagement and learning outcomes face unprecedented challenges. Furthermore, during online teaching activities, the seriousness of the instructional attitude and the delay in teacher feedback can significantly affect student participation, thereby undermining the effectiveness of online learning.

### C. Course Quality Factors

The quality of the courses provided by teachers has always been a critical factor influencing student learning outcomes. High-quality courses are positively correlated with effective learning experiences. Similarly, the degree to which students accept the knowledge gained through online learning is closely linked to the quality of instruction they receive. Moreover, compared to traditional teaching methods, teachers utilizing online learning approaches can incorporate a wider variety of instructional models to enhance course quality and enrich the content delivered in class. For instance, combining textual materials, audio-visual content, and multimedia presentations can lead to a more engaging learning experience. However, the perceived distance between teachers and students can impact the overall quality of the course. Online learning courses not only need to present information clearly and logically, but they also require strategies to actively engage students in the learning process. In online courses, the lack of interactive, communicative learning between teachers and students makes it challenging for educators to gauge students' comprehension and mastery of the course content. This difficulty can hinder their ability to provide clear guidance for achieving course objectives, resulting in a significant negative impact on learning outcomes [4]. Additionally, in the context of online learning, there are limitations regarding the submission of coursework, such as timely assignments that must be completed in class. Unlike in-person courses, teachers often find it difficult to promptly assess students' progress and provide targeted support for specific challenges, which also affects the overall effectiveness of online learning.

## III. RECOMMENDATIONS

In addressing these issues, educational departments and schools should actively explore strategies to improve online learning. This study proposes the following recommendations from three aspects: the psychological factors affecting students, the role of teachers, and the quality of the

curriculum. It is hoped that by focusing on students' psychological factors, strengthening the role of teachers, and enhancing curriculum quality, the effectiveness of students' online learning can be further improved. It is anticipated that these suggestions will provide significant references for improvements in related fields. The implementation of these recommendations relies on the joint efforts of educational authorities, schools, and teachers, which is essential for advancing the overall quality of online education.

### A. Recommendations Based on Student Psychological Factors

In the process of promoting the high-quality development of online learning, the psychological factors of students are particularly important. First and foremost, the design of personalized learning paths can effectively enhance students' psychological comfort. Students with strong self-regulation abilities are typically able to manage their study time more efficiently, create realistic study plans, and flexibly adjust their strategies based on their learning progress. Encouraging students to formulate detailed study plans, set task priorities, and adeptly handle potential distractions during their learning process is crucial. Mastering effective time management skills can help students arrange their study time more scientifically and actively engage in their learning, thereby improving learning efficiency. When formulating study plans, students should be encouraged to set specific and measurable goals and conduct regular assessments of their progress to stay informed about their learning advancements. Creating personalized study plans and objectives allows students to learn at their own pace. This flexibility not only reduces the pressure of learning but also enhances their confidence and sense of achievement.

Furthermore, moderately increasing the challenge level of online learning tasks can stimulate students' self-efficacy and intrinsic motivation. A person's self-efficacy is their confidence and conviction in their ability to accomplish a particular job. In the context of online learning, students' self-efficacy can significantly influence their learning behaviors and academic performance [5]. Students with high self-efficacy are generally more confident and proactive in overcoming difficulties and challenges encountered during the learning process. They tend to set higher learning goals and demonstrate greater perseverance when facing setbacks. This not only helps to improve their academic performance but also enhances their interest and engagement in online learning.

By moderately increasing the challenge level of online learning tasks, students' attention can be captured, stimulating their intrinsic motivation and making it easier for them to engage in deep learning. When students develop a strong interest in the learning content or feel that it is challenging, they are more likely to consciously increase the time they invest, actively seek help, and exert effort beyond the usual tasks, thereby achieving better learning outcomes.

Additionally, mental health education should not be overlooked. The unique nature of online learning may lead students to experience feelings of loneliness and anxiety; therefore, integrating mental health education into the

curriculum is particularly crucial. Regular mental health seminars can be organized, inviting psychological experts to provide professional guidance to students, helping them to recognize and adjust their emotions. Moreover, offering courses related to psychological counseling can teach students techniques for coping with stress and anxiety, cultivating their resilience and psychological strength, which will enable them to adapt better to the online learning environment.

### *B. Recommendations Based on Teacher Factors*

First and foremost, it is essential to enhance the sense of interaction between online learning teachers and students, thereby promoting the transformation of knowledge in online learning environments. In online teaching, the content delivered by teachers to students is highly targeted, and most of their actions can be expressed in outwardly visible ways, such as through language, text, expressions, and gestures. Therefore, to improve students' learning outcomes, it is crucial to guide students to engage in interaction as much as possible during online instruction. This can be achieved by establishing precise interactive topics that capture students' interest in learning. Teachers can promote interaction between themselves and students through various means, such as regularly organizing online discussion sessions, group projects, or role-playing activities. During the online teaching process, teachers should actively encourage students to participate in interactions and express their viewpoints and questions. Before each online discussion session, teachers can share the discussion topics in advance, requiring students to research and reflect on relevant materials so that more in-depth exchanges can occur during the meeting.

Secondly, guiding and driving students towards deep learning transformation through teacher feedback is essential. Feedback can be immediate or delayed. Immediate evaluations can be given right away during interactive discussions among learners. Timely feedback allows students to understand their grasp of the knowledge they have acquired, enabling them to identify mistakes and continuously improve. During the process of providing immediate feedback, teachers should genuinely express joy when students achieve excellent results or show progress in their learning, thereby stimulating positive emotions that encourage learner participation. It is important to show understanding towards existing problems, rather than displaying negative emotions, especially towards students who might be struggling. Furthermore, after identifying issues in timely feedback, teachers should offer ample encouragement, as this can enhance students' interest in learning and boost their confidence, ultimately leading to better learning outcomes. Delayed evaluations, on the other hand, are based on a thorough analysis of learning data from a particular stage and provide learners with rigorous and scientific assessments. Teachers should regularly assess students' learning progress and offer specific and targeted feedback. This approach helps students understand their learning situation and increases their sense of involvement. It enables students to not only improve their knowledge but also cultivate better learning habits and ways of thinking. It encourages students to actively reflect on

how they can enhance their learning effectiveness, fostering a mindset of continuous improvement in their studies.

Finally, it is advisable for higher education teachers to adopt a student-centered approach that emphasizes the primary role of students. The goal should be to enhance the effectiveness and sustained engagement of online learning by providing efficient, diverse, and comprehensive teacher support. Teacher support is perceived by students as the attention and emotional care from teachers, as well as the assistance provided in overcoming challenges they face [6]. Online learning inherently involves significant spatial and temporal separation; therefore, emotional support from teachers is vital to break the deadlock of online learning. Research indicates that students who receive more teacher support tend to achieve significantly better academic results than those who receive less support. This is primarily because students who benefit from substantial teacher support experience care, encouragement, and guidance in their learning lives, making them more willing to engage actively in their studies, thus leading to better academic performance.

Teachers should create a positive and open online learning atmosphere. They need to shift from being traditional authority figures to becoming collaborators, facilitators, and academic supporters in students' online learning experiences, respecting learners' personalities, emotions, and opinions, and believing in their abilities. When learners express differing viewpoints, teachers should appropriately encourage and affirm them, especially in high-challenge learning environments, as a relaxed learning atmosphere can foster greater student participation in online learning, enhancing learners' innovative capacities and learning outcomes.

At the same time, teachers must understand students' learning psychology and enhance their sensitivity to students' emotional needs, promptly identifying learners' issues and providing emotional support to strengthen their sense of belonging. Addressing the negative fatigue and loneliness that can arise from the spatial and temporal separation in online learning, teachers should actively guide students to participate in online interactions, alleviating feelings of distance and isolation through encouragement and praise.

Moreover, teachers should strive to comprehend students' learning difficulties from their perspective, timely addressing the feelings of anxiety, frustration, and impatience that may arise during the online learning process. By offering emotional support, teachers can bolster students' confidence in overcoming challenges. When learners see the fruits of their efforts, their sense of achievement will rise, generating significant motivation for learning and providing psychological support for enhancing their willingness to engage in continuous learning.

### *C. Recommendations Based on Course Quality*

The quality of online courses has always been one of the research hotspots in the field of education, attracting widespread attention from educational management departments, universities, and teachers. In recent years, the Ministry of Education and other relevant departments have issued multiple documents to build a batch of high-quality

online courses, cultivate quality online educational resources, and establish national first-class courses. This study found that during the online learning process, course objectives, course content, and course delivery have significant impacts on students' academic performance. Moreover, student engagement is significantly correlated with course objectives, course content, course delivery, and online learning effectiveness. These findings emphasize the need to pay more attention to various aspects of online courses when designing and implementing them. This includes perfecting the course management system in higher education institutions, enhancing teachers' teaching capabilities, improving the effectiveness of online course instruction, and increasing student participation in courses, all aimed at improving students' online learning effectiveness.

First, it is essential to improve the course management system in higher education institutions. Enhancing flexible management during the course delivery process is vital. From the perspective of a human-centered curriculum view, course implementation is regarded as a process of understanding and dialogue. It emphasizes the mutual listening and acceptance on a spiritual level between both parties involved. It is an activity of knowledge exploration, ideological collision, and emotional exchange conducted on an equal basis between teachers and students. The teacher-student interaction during the course implementation process can highlight the significance and value of the curriculum, promote students' understanding and internalization of knowledge, and achieve the construction of knowledge meaning. This contributes to increasing student engagement in online learning, stimulating creativity, and emphasizing the significance and value of education. However, the current course management in higher education is overly focused on uniformity and standardization, placing emphasis on the constraints and control imposed by the system on both teachers and students. This results in excessive rigidity in management and insufficient flexibility, which suppresses the initiative and awareness of teacher-student dialogue, hindering the generation of courses and the construction of knowledge.

Therefore, it is necessary to reform the current course management system, shifting from rigid management to flexible management, in order to create a more humane institutional environment for course implementation. Flexible management refers to a non-coercive approach, based on a deep understanding of human psychology and behavior patterns, that generates a potential persuasive power in people's minds through spiritual communication and emotional recognition. This transforms the organizational will into the conscious actions of individuals. Flexible management is characterized by ambiguity, non-coerciveness, adaptability, and a focus on human needs, which contributes to stimulating individual initiative, intrinsic potential, and creativity. The dialogue between teachers and students during the course implementation process is a professional and creative activity that requires a flexible management system to provide a relaxed and free environment for course delivery.

To this end, it is essential to change the overly centralized course management system, granting departments more

autonomy in course management, enabling them to conduct course teaching activities flexibly and efficiently based on the characteristics of their disciplines and majors. At the same time, it is important to appropriately expand the course authority of both teachers and students, ensuring greater freedom and space for expression during the online course implementation process. Furthermore, increasing the flexibility of online course management is necessary to reduce constraints and limitations on the teaching process of both teachers and students, avoiding excessive and detailed regulations and requirements for classroom teaching, and discouraging a blind pursuit of uniformity. Instead, it should encourage teachers to adopt diverse and flexible online teaching methods.

Secondly, it is essential to enhance the online teaching capabilities of university faculty. Effective teaching is the primary task in improving the quality of higher education, and high-quality online teaching is the lifeline for the sustainable development of online learning in universities. For a long time, teaching has been viewed as a lower-level labor lacking academic prestige, where mastering subject knowledge is deemed sufficient to qualify for teaching roles. This prejudice against teaching activities has significantly dampened teachers' enthusiasm and motivation, severing the connection between teaching and research, which is detrimental to the effective implementation and quality enhancement of online teaching.

Therefore, in the establishment of online courses in higher education, on one hand, it is necessary to transform the latest achievements in professional research and cutting-edge disciplinary knowledge into course knowledge and incorporate them into university online courses. On the other hand, it is essential to design an autonomous online learning environment for students, guiding them to actively participate in course learning activities. Based on this, university faculty should not only improve their teaching capabilities but also further enhance their professional qualities, strengthen their expertise, and optimize online teaching methods and approaches. Additionally, they should reinforce their classroom management capabilities and adaptability in online settings to improve the organization of online classroom teaching, ensure good order, promote student engagement, enhance course teaching quality, and improve online learning effectiveness [7].

Additionally, improve the online learning effectiveness. The effectiveness of online learning effectiveness mainly refers to the specific progress and development students achieve after a period of teacher-student interaction. Effective online learning should have clear course objectives, adopt appropriate teaching behaviors, course content, and course delivery, and maximize the stimulation of student engagement to enhance online learning effectiveness.

Firstly, when teachers engage in online education, they should have a clear understanding of the course objective and achieve the set teaching goals through online teaching. Therefore, teachers must explore and organize the course content embedded in a course, extracting the goals that need to be achieved in the online course, and clearly express them in

the online course standards. These goals should be as quantifiable and measurable as possible; the more quantifiable the goals are, the more measurable they become. Through understanding the course standards, students also clarify the course objectives in online learning, which helps students better grasp and identify with the teaching content of the course.

Secondly, instructors should have a clear understanding and grasp of the teaching content in online courses. Clear course objectives and course content can enhance learners' learning expectations and sense of achievement regarding their course objectives, and students will have a more positive learning tendency. It is crucial to accurately identify the knowledge elements contained within the course content and provide detailed explanations in different chapters and modules of the course standards. Generally speaking, the extraction and refinement of online course content should strive to be precise and specific, ideally down to the level of specific knowledge points. Only in this way can online courses be operable and truly executed effectively; otherwise, they can easily become superficial and fail to achieve the anticipated online learning effectiveness. On this basis, the quality of online teaching should start from the course content and course delivery.

Online courses should offer scientific, practical, and cutting-edge course content to provide students with a better learning experience. In determining the course objectives, selecting and organizing course content, it should reflect students' developmental interests and their real-life situations to enhance the relevance of the course content. The course content should aim at the development and improvement of the discipline, as well as the progress and development of society. Both the discipline and society are in a dynamic state of development, which requires the course content not only to adapt to the progress of the discipline and society but also to guide their development. Only in this way can the course content have a certain degree of appropriateness in its value orientation, meet the personalized learning needs of students, deepen their understanding of the course objectives and content, and stimulate their enthusiasm and initiative in course learning.

Finally, the teaching of online courses should have innovative classroom teaching models, improve the online teaching process, and expand methods and approaches for online course construction. This continuous improvement enhances the substance of online courses and elevates the level of online teaching. Teachers should carefully design courses based on the characteristics of different online courses, adopting flexible and diverse teaching methods, means, and models to ensure that students complete their learning tasks

and achieve learning objectives in a positive and enjoyable learning engagement experience.

#### IV. CONCLUSION

Through an analysis of the difficulties and challenges faced by online learning, suggestions are proposed from three aspects: the psychological factors of students, the role of teachers, and the quality of the curriculum. It is essential to pay attention to the psychological factors influencing students, emphasizing a student-centered approach. At the same time, efforts should be made to enhance communication and interaction among teachers. The quality of online courses is directly related to students' learning outcomes; therefore, improving the management systems of higher education courses and enhancing online teaching capabilities are crucial for the sustainable development of online learning.

Moreover, in the process of promoting high-quality development of online learning, the collaborative efforts of all parties are vital. Governments, educational institutions, businesses, and various sectors of society must work together to foster the healthy development of online education. Through the concerted efforts of multiple stakeholders, online learning will not only effectively enhance the quality of education but also cultivate innovative talents that meet the demands of future society, thereby contributing to the long-term development and progress of the nation.

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