

# *Research on University Students' Perceptions of Effort and Rewards in Online Learning*

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**Abstract:** This study focuses on university students' perceptions of effort and rewards in online learning. Through empirical analysis, the study clarifies how students' perceptions of effort and rewards are influenced by factors such as understanding of learning policies, learning modes, and external support conditions. The study provides operational definitions and measurements for effort and rewards and draws relevant conclusions through survey analysis. The results indicate that variables such as grades and learning methods have a certain impact on perceptions of effort and rewards. Additionally, effective promotion of learning policies, appropriate learning modes, and external support conditions are crucial in ensuring students' perceptions of effort and rewards in online learning, providing guidance for optimizing the online learning experience.

## **1. Introduction**

It has become increasingly important for college students to engage in online learning through online learning platforms as per the requirements of university management. Researching the various costs that students need to bear and the rewards they gain during the online learning process, namely effort perception and rewards perception, is crucial for enhancing students' learning outcomes, adapting to changes in teaching modes, and optimizing online learning education in universities. By understanding students' effort perception and rewards perception, universities can better adjust their teaching strategies, provide learning resources and support that better meet student needs, thus improving the quality and effectiveness of online learning.

## **2. Operationalization and Measurement of Core Concepts**

Effort perception can be defined as the positive or negative psychological experience that individuals undergo to meet a certain need<sup>[1]</sup>. It does not deviate from the original meaning of the word to research the various costs that students bear when engaging in online learning, such as time, money, action costs, and the sacrifice levels of interpersonal relationships like teacher-student relationships and peer relationships that arise due to changes in teaching methods<sup>[2]</sup>. On the other hand, rewards perception can be broken down into "rewards" and "perception", meaning "the feelings generated by obtaining something". "Rewards" refer to what individuals gain, while "perception" relates to subjective experiences. The compound concept of "rewards perception",

formed by the combination of “rewards” and “perception”, represents the sustained, positive emotional experiences that individuals form after their material and spiritual needs are satisfied. These feelings can be active or passive, explicit or implicit. The concept of “rewards perception” serves as a core concept in governance philosophy<sup>[3]</sup>, providing a new dimension and reference for studying rewards perception in the field of education.

The measurement of effort perception in online learning among college students is based on conventional cognition and involves measuring it across six dimensions: dedicating more time to ensure the effectiveness of online learning, being able to utilize my time more efficiently during online learning, actively engaging in offline communication with classmates to maintain relationships, being willing to communicate with teachers outside of class to ensure learning effectiveness, upgrading my learning devices for online classes, and considering upgrading hardware for non-learning activities under the pretext of “attending online classes”.

The measurement of rewards perception is divided into five dimensions: satisfaction derived from acquiring knowledge, a sense of belonging stemming from emotional gains, identification arising from acquiring thoughts and values, a sense of achievement resulting from acquiring methods, and motivation derived from participating in interactions. Specifically, this includes satisfaction from acquiring knowledge, a sense of belonging from emotional gains<sup>[4]</sup>, identification arising from acquiring thoughts and values, a sense of achievement from acquiring methods, and motivation from participating in interactions<sup>[5]</sup>.

Moreover, the factors influencing college students’ effort perception and rewards perception in online learning, including independent variables and other influencing factors, are complex. Starting from the characteristics of online learning, the independent variables identified include gender, major, political affiliation, academic performance, whether they have received academic honors, and other factors such as students’ understanding of relevant online learning policies, learning modes, external support, which also impact their effort perception and rewards perception.

### 3. Survey Results and Analysis

#### 3.1 Descriptive Statistical Analysis

Using the Likert scale, where 1-5 represent strongly disagree, disagree, neutral, agree, and strongly agree, respectively, various indicators were operationalized. By utilizing SPSS 26 to conduct descriptive statistics on the indicators under each dimension, the mean value of effort perception in online learning for college students was found to be 3.111, while the mean value for rewards perception was 3.164, indicating an overall moderate level. Regarding effort perception, students’ experiences ranged from a minimum value of 1 to a maximum value of 5, with an average value of 3.111. In terms of rewards perception: the mean value for satisfaction derived from acquiring knowledge was 2.894, indicating that students’ satisfaction with knowledge during online learning was relatively below average; the mean value for a sense of belonging stemming from emotional gains was 3.0194, suggesting that online learning to some extent provides emotional belonging to students at a moderate level; the mean value for identification arising from acquiring thoughts and values was 3.7245, indicating that online learning policies allow students to have a good sense of value identification, especially in terms of policy alignment, party alignment, and national alignment; the mean value for a sense of achievement resulting from acquiring methods was 3.2528, indicating that students can acquire methods through online learning beyond just knowledge itself; and the mean value for motivation derived from participating in interactions was 2.9306, suggesting that the level of interactive motivation in the online learning process for students is relatively low, falling below a moderate level.

### 3.2 Analysis of Independent Variables Factors in Effort Perception and Rewards Perception

Using SPSS 26, a variance analysis was conducted with effort perception and rewards perception as dependent variables and gender, year of study, major, political affiliation, student leadership roles, academic performance, personal honors, online learning duration, and the format of professional courses and ideological and political courses as independent variables. The analysis revealed the following: Among students in the top 10% academically, there was a significantly stronger rewards perception compared to students in other performance brackets, particularly evident in their stronger satisfaction with acquiring knowledge, with a P-value of 0.013. Regarding the learning methods in professional courses, students recommended textbooks by teachers exhibited significantly higher satisfaction with acquiring knowledge compared to other students, with a P-value of 0.003. In terms of the learning methods in ideological and political courses, students engaged in teacher-led discussions and group presentations showed significantly higher identification with thoughts and values compared to other students, with P-values of 0.041 and 0.013, respectively. No significant impact on either effort perception or rewards perception was observed from the remaining variables, indicating no notable differences.

### 3.3 Analysis of Factors Influencing Effort Perception and Rewards Perception

In addition to the aforementioned variables, it is important to consider college students' understanding of relevant online learning policies, learning modes, and external support as potential influencing factors on students' effort perception and rewards perception in online learning. Through multiple linear regression analysis of the relevant variables, the significant influences on the corresponding variables are as follows:

For effort perception, significant factors include a sense of belonging stemming from emotional gains, identification arising from acquiring thoughts and values, motivation derived from acquiring methods, and external support across four dimensions, totaling seven indicators. These influences are reflected in specific indicators such as classroom discussions, emotional belonging within the institution, identification with the socialist system, classroom interactions, and open video lectures, showing a significant overall correlation.

Regarding rewards perception, significant factors include satisfaction derived from acquiring knowledge, a sense of belonging stemming from emotional gains, a sense of achievement resulting from acquiring methods, motivation derived from participating in interactions, effort perception, and external support across six dimensions, totaling fifteen indicators. These influences are reflected in various aspects such as knowledge acquisition, mastery of methods and skills. Notably, data indicates a strong correlation of value 0 between counselors and ideological and political courses affecting students' rewards perception, highlighting the significant role of ideological and political courses and counselors' related work in students' online learning experiences.

## 4. Conclusion and Discussion

Through empirical research on college students' effort perception and rewards perception in online learning, the following conclusions were drawn:

*A. Promotional efforts on online learning policies ensure the premise and foundation for college students' effort perception and rewards perception in online learning.*

From empirical data, it is evident that college students' understanding of online learning policies significantly influences their effort perception and rewards perception in online learning, particularly in terms of the "identification with thoughts and values acquired". Therefore, in the process of implementing online learning, universities should prioritize the promotion of online

learning policies.

At the conceptual level, policy promotion drives the conscious reconstruction of online learning awareness among university students. Policy promotion plays a crucial role in guiding students to establish the correct mindset towards online learning. Through policy promotion, students can gain a deeper understanding of the importance and significance of online learning, realizing that it is not just a response to special circumstances. Students need to clarify their learning goals, develop reasonable study plans, and conscientiously execute these plans. Additionally, students need to learn self-motivation to maintain their learning drive and enthusiasm. Through this process, students will gradually recognize their potential and abilities, prompting them to reassess what kind of “self” they should be in the online learning environment, thereby equipping students with stronger self-directed learning and self-management capabilities.

At the behavioral level, promoting learning policies drives the conscious regulation of online learning behaviors among university students. Learning policy promotion helps students to clearly recognize the importance and necessity of online learning. Online learning provides students with a more convenient and flexible way of learning, enabling them to access a wealth of learning resources without being constrained by time and space. Through promotion, students can understand that online learning is an inevitable requirement to adapt to the development of the times and is an important means to enhance their overall quality. Additionally, learning policy promotion assists students in further standardizing their learning habits. Online learning requires students to have stronger self-discipline and self-management skills. Students need to schedule their study time sensibly, develop scientific study plans, and strictly adhere to them. Promotion can guide students to cultivate good study habits, such as completing assignments on time, actively engaging in classroom interactions, and engaging in critical thinking and inquiry. Furthermore, students also need to learn self-monitoring and self-evaluation, promptly identifying and improving any issues they encounter during the learning process. Through these efforts, students can enhance their learning efficiency, improve the quality of their learning, and better adapt to the requirements of online learning.

At the value level, promoting learning policies facilitates the transcendence of values among college students. Policy learning can guide college students to reconsider their values and life goals, achieving the reconstruction of concepts. By understanding relevant policies, students can realize that online learning is not only about acquiring knowledge and skills but also about cultivating their innovative thinking, teamwork skills, and sense of social responsibility. They will pay more attention to their holistic development, strive to enhance their comprehensive qualities to meet the demands of societal development. Furthermore, policy learning helps enhance the standards of behavior among college students. Once students have clarified their values and goals, they will consciously adhere to learning disciplines, actively participate in various learning activities, and strive to improve their abilities and levels. Additionally, they will focus more on societal issues, actively engage in social practices, and contribute to societal development. Through these actions, college students can achieve the dialectical unity of individual life values and social values, becoming pillars of society who are responsible and conscientious. The purpose of promoting policy learning to achieve the reconstruction of students’ concepts and the improvement of their behaviors is to transcend their own ideological values and ultimately achieve the dialectical unity of individual life values and their social values.

*B. The learning mode is a crucial lever to ensure college students’ effort perception and rewards perception.*

The learning mode represents the way and method of online learning, such as the type of learning platform and the teaching methods in online learning. From the analysis of variance, it can be seen that the learning mode has a significant impact on students’ perception of effort and directly

related indicators such as students' learning of knowledge, acquisition of methods, and participation in interactions in the context of "learning". Therefore, for online learning, the learning mode is a crucial lever that influences teaching effectiveness.

Firstly, to establish a macro control and a structured model of micro learning for online learning: On one hand, at the macro level, educational departments and schools should implement standardized and unified macro regulations for online teaching. This will provide teachers with a basis for designing their classes, ensuring that changes in teaching methods do not lead to disparities in the teaching mode. On the other hand, at the micro level, teachers should play an active role as individuals. They should leverage the technical advantages of online teaching on the basis of general regulations set by school departments to compensate for the disadvantages caused by the spatial separation between teachers and students.

Secondly, strengthen the content supply of online learning modes, delve deep into the multimedia integration model of online learning, and break through the singular constraints of conventional "lecture" teaching. In fact, the application and development of online learning as a learning mode in the internet era to a large extent harbors revolutionary changes in teaching practices. With the rapid and ongoing development of internet technologies, various learning software and platforms centered around multimedia and recommendation algorithm technologies are rapidly advancing. Learning is gradually being integrated into the framework of the internet. This integration does not aim for mere formal unification but rather substantial unity, representing the integrated development of traditional teaching models with emerging internet technologies. This aims to enrich content supply, expand teaching methods, and ultimately seek substantial progress in teaching practices and online learning.

*C. External support conditions are important factors in ensuring college students' effort perception and rewards perception.*

Unlike traditional face-to-face classroom teaching, online learning requires various educational elements such as schools, teachers, parents, and students to invest a certain amount of resources to ensure the effectiveness of the learning environment.

Firstly, for schools, schools should prioritize online teaching and not consider it as a temporary or transitional learning method. Instead, it should be seen as an important measure for schools to conduct regular teaching activities. Schools should have a sense of primary responsibility, standardize online learning methods, enrich online learning resources, and establish institutionalized, procedural, and standardized requirements to macroscopically control online teaching work. This ensures that online teaching stays on course and does not lose direction, providing guidance for online teaching work in higher education institutions.

Secondly, for teachers, online teaching places higher demands on their teaching capabilities. Ensuring teaching effectiveness in a virtual meeting room environment is a question that every teacher should consider. On one hand, teachers need to master various information technologies that come with online teaching and integrate them to enrich the teaching content in classroom activities. On the other hand, teachers should also focus on the changes in teaching methods caused by environmental variations. They should utilize online teaching software, resources, and other tools to compensate for any deficiencies in teaching effectiveness resulting from the lack of physical presence of teachers and students in the virtual environment.

Thirdly, for parents, it is important to provide logistical support for students' online learning by offering software and hardware upgrades within a reasonable scope, creating a conducive home learning environment and atmosphere. As for the students themselves, they should value online learning mentally and not let feelings of complacency arise due to changes in the classroom environment. Additionally, students should be aware of the shortcomings of online learning and consciously address any learning gaps through self-study, ensuring learning effectiveness.

## 5. Conclusion

The sense of effort and rewards in online learning for college students is a complex and important research area. Through this study, we have clarified that the promotion of learning policies, learning modes, and external support conditions are crucial to ensuring the sense of effort and rewards in online learning for college students. In the future development of online learning, universities should further strengthen the promotion of online learning policies, encouraging students to achieve comprehensive improvement in concepts, behaviors, and values, cultivating students' abilities for self-directed learning and self-management. At the same time, continuously optimize learning modes, establish a structured model that combines macro control with micro learning, enhance content provision, explore multimedia integration models to improve teaching effectiveness. Additionally, all parties should work together to improve external support conditions. Schools should strengthen their sense of responsibility, teachers should enhance teaching abilities, parents should provide logistical support, students should value online learning and actively address learning gaps, to provide more benefits for enhancing the quality and effectiveness of online learning for college students.

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