

# Research on the Selection of Traditional Course Teaching and Online Teaching from the Perspective of Topic Economics

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**Abstract:** The Internet + course teaching, which is quite different from traditional ways of teaching, rises with the continuous development of Internet technology. This paper studies the essence of the choice between traditional course teaching and online course teaching from the perspective of economics, which is also called consumer choice behavior. The selection process and alternative trend of traditional courses and online courses are studied to provide useful reference for college students' choice of courses and the reform of teaching mode at the same time.

## 1. Introduction

The traditional course teaching mode is a teacher-centered, book-centered and classroom-centered teaching mode of bilateral activities between teachers and students, which is widely used in education and teaching. Its characteristics are: Knowledge is imparted reasonably and directly and systematically; it has commodity learning atmosphere and easy for teachers to supervise; Emphasis on theory but light practice; Taking a lesson plan as a guide.

Online course teaching is the teaching mode which uses the computer and network and other hardware devices, relies on the professional online teaching system platform to achieve the remote, synchronous, interactive teaching and learning; it is a new form of course in the information era. It is characterized by interactivity; open; personalized; multimedia; hypertext, etc. If traditional course teaching and online course are regarded as two commodities, the choice between traditional course teaching and online course teaching is essentially a problem of consumer's choice behavior.

Measuring from economics method, which one of traditional teaching and online teaching are more promising in the future and how its development trend will be, which is essentially a way of teaching, could realize the combinations more can to meet the students in the budget line (time, energy, ability to pay and other factors) based on the knowledge of utility maximization.

The analysis of this problem involves four basic concepts of economics:

### 1) Utility

In economic theory, utility refers to the ability of commodities to satisfy people's desires. No matter the traditional course teaching form or the online teaching form is an integral part of education. People can satisfy their desire to know and change the world through getting education. The term preference means love or like. In economic theory, preference means the order in which consumers rank any two combinations of commodities. Students' different psychological demands for course learning and the characteristics of traditional courses and online courses decide their different preferences for course learning.

### 2) Indifference curve

In economic theory, the indifference curve is used to represent all combinations of two commodities that consumers have the same preferences. In this paper, if we see the traditional course teaching and online teaching as a set of commodity combination, we can see that the two teaching forms have mutual independence and alternative. The law of diminishing marginal substitution rate in economics tells us that on the premise of remain the same level of utility, with the continuous increase of the consumption quantity of one commodity, the consumption quantity of another

commodity that the consumer needs to give up in order to get each unit of this commodity is decreasing.

Seeing the traditional course teaching and online teaching as a set of commodity combination, and the law of diminishing marginal substitution rate has a significance lies in: If the use of traditional course teaching continues to increase, students will have less desire to get the traditional course teaching, and students will be more willing to get the opportunity of online teaching; on the contrary, if online teaching continues to increase, then students' desire to get online teaching will decrease and students will have the desire to get the opportunity of traditional teaching. It also means that a single teaching form cannot achieve the best teaching effect, and only matching the two in an appropriate proportion would meet the psychological demands of students better.

### 3) The budget line

In economic theory, the budget line represents the various combinations of two commodities that a consumer's total income can purchase given the consumer's income and the price of the commodities. In the choice of traditional course teaching and online teaching, the main constraints that decide whether students can devote to traditional course teaching or online teaching are students' time, energy, ability to pay and other factors. If conditions permit, it is students' freedom to choose the traditional course teaching and or online teaching, but under the condition of constraints such as the time, energy and ability to pay of a given student, some combination of traditional teaching and online teaching will not be selected by students. Only under the given time, energy, ability to pay and other constraints, the students to obtain the most utility of the teaching combination model is the most efficient.

## 2. The selection process and alternative trend of traditional courses and online courses

### 2.1 The selection process of traditional courses and online courses

In the given time, energy, ability to pay and other constraints, students' optimal course choice must be the combination of traditional courses and online courses.

If put the issue in the framework of microeconomic analysis of consumer behavior, as shown in Fig.1, assuming  $X_1$  representative for the demand for traditional courses,  $X_2$  representative for the demand of online courses, setting under a given time, energy, ability to pay such as constraint conditions, the students' the choice of utility maximization inevitably falls on E, in other words, under their own time, energy, ability to pay and other conditions allow, the realization of learning utility is the largest.

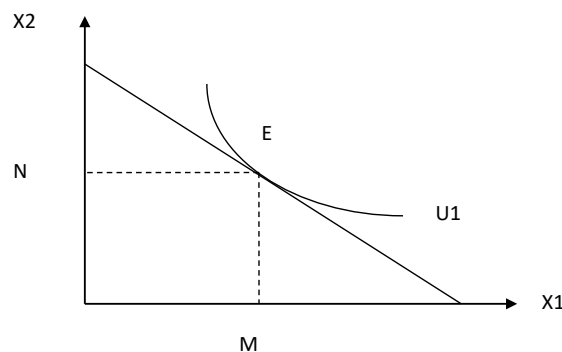


Fig. 1 Students in the selection between traditional course teaching and online teaching process of balance

It should be noted that the above analysis is under the students' time, energy, ability to pay and other constraints allowed conditions, there are two extreme cases:

1) Assuming that students' ability to pay and other conditions are extremely bad.

For not affording necessary electronic devices for online courses, then students' choice of courses under this condition is just a vertical line which is parallel to the vertical axis, it means that students have to accept the teaching of traditional courses without any choices.

2) Assuming that, students are not qualified to participate in the traditional course teaching in the outbreaking period of COVID-19 plague, then the students' choice of course is a horizontal line which is parallel to the horizontal axis, which means that students can only accept the option of online teaching.

Excluding these two unusual cases, theoretically, optimized matching traditional course teaching and online course teaching can achieve the best effect. Of course, in the above selection process, students' preference for traditional teaching and online courses is dominant.

## 2.2 The substitution trend of traditional courses and online courses under the change of income level

In daily life, consumption upgrading is a common phenomenon. Consumption upgrading means that people tend to shift from the most basic consumption to more diversified and higher quality consumption with the change of people's income level, just like shifting from the basic ones like "food, clothing, housing and transportation" to information consumption, health consumption and so on. Online teaching can be regarded as a component of information consumption. As incomes rise, more and more people are breaking out of their payment constraints and taking tailor-made online classes on things like exercise class and etiquette class.

The trend of replacing traditional courses with online courses due to the increase of income can also be analyzed by using the above basic economic principles. When the income increases, the budget constraint of income shifts outward, and the new equilibrium point is E2. Compared with E1, students prefer more online teaching at the new equilibrium point, which is also a phenomenon of consumption upgrading taken by the increase of income. Fig.2 also shows that when the income does not increase, the demand for teaching of many online courses is restrained.

By analyzing the relationship between income and online teaching demand, it can also be explained that regions with different income levels should adopt different teaching forms, and we cannot popularize online courses to all regions without independent judges. It also tells us that rising incomes can lead schools to a way with more diverse forms of teaching.

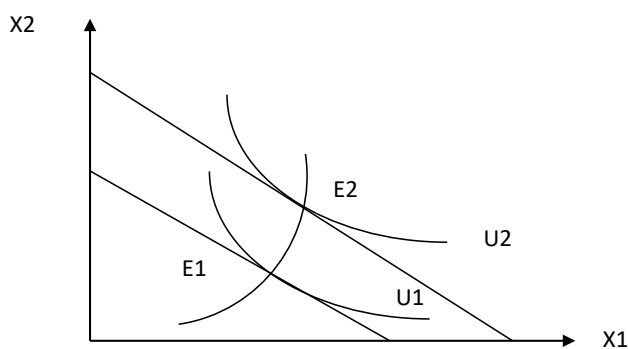


Fig. 2 The substitution trend of traditional courses and online courses under the change of income level

## 2.3 The trend of replacing traditional courses with online courses under the change of price level

In daily life, some professional-skill online courses are often more expensive, and some online courses with a great demand for skills in the market even show a constant price rise. When the price of some professional online courses is high, students usually choose to reduce the learning of online courses and continuously switch to offline traditional courses. In some neighboring colleges or universities, students would go to other schools to have a free lesson, especially some popular specialized courses. This phenomenon can also be explained by the above economic principles. When the price of online courses goes up, the demand for traditional courses will expand, and the traditional courses will replace the online courses.

### 3. Related Suggestions

Students should reasonably arrange their time, make study plan and study hard. In the process of learning, students should pay attention to the reasonable combination of traditional courses and network courses, take the initiative to adapt to the teaching mode of network courses, make full use of the rich learning resources, and cultivate their learning ability and interest and have timely reflection of their own learning problems, adjust their learning state.

In view of the mismatch between the research and development of network courses and the practical application of teachers' teaching, teachers, as the main body of promoting the practice of network teaching, need to reform from the aspect of teaching design.

(1) Flexible online course setting.

The teacher sets up the network curriculum, must take the convenience student study, satisfies the student to distinguish the stage changes the study characteristic as the starting point, according to the discipline characteristic, designs the rich study resources, fully satisfies the student's study demand.

(2) Diversified design of teaching activities.

Teachers should make full use of the advantages of convenient and fast online courses, adopt reasonable teaching strategies, change the single traditional teaching mode, enrich the design of teaching activities, and adopt interactive teaching activities, so that students can combine theory with practice and set a solid basis for their learning.

(3) Teachers' teaching specialization.

In order to make full use of network course teaching methods in traditional courses, teachers should comprehensively improve their skills and literacy of working, try to be able to skillfully apply network course related technologies, and achieve efficient interaction with students.

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