

# Research on Issuing Mechanism of Virtual Campus Currency in Education and Teaching Reform

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**Abstract:** *The introduction of virtual campus currency in education and teaching can form a new incentive mechanism. This paper mainly studies the issuing mechanism of virtual campus currency, analyzes the issuing idea of virtual campus currency from the perspective of issuing subject, trading subject and the attributes of virtual campus currency, and introduces the block chain technology into the issuing mechanism of virtual campus currency. The results of this study confirm the feasibility of issuing virtual campus currency and provide an effective plan for enhancing the enthusiasm of all participants in the educational and teaching reform.*

**Keywords:** Virtual campus currency; Issuing mechanism; Incentive policy

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## 1. Introduction

*The Modernization of Chinese Education 2035*, pointed out that we should develop high-quality education at the world's advanced level, including Suggestions on improving the education quality standard system and building a contingent of high-quality, professional and innovative teachers. University education undertakes the important mission of cultivating mature talents and providing technology for the society. Therefore, it is necessary to introduce a new incentive mechanism to attract college students to further enhance their learning enthusiasm, teachers' teaching momentum and comprehensively measure the talent cultivation achievements of college students.

As an important way of behavior correction in education, the introduction of virtual currency in higher education can not only improve students' learning enthusiasm, but also screen the quality of courses and comprehensively measure the achievements of talent cultivation. As a behavior correction technology in education, token currency system is featured with strong pertinence, easy operation and quick effect, which can alleviate or improve the parties' bad behaviors (Zhong Zhinong, 2013). Token currency control was introduced into the field of behavior shaping and habit cultivation for college students in order to improve their management of time, habits, money and diet (Mo Xiufeng, Li Hong 2008). The IMF defines virtual currency as a digital representation of value issued by private institutions using their own units of account (Wang Xin, Ren Zhe.2016). According to this definition, virtual campus currency (VCC) is the digital value of school education and teaching, acting as the general equivalent in the process of education and teaching, and giving play to the value measure, circulation means and payment means of currency.

## 2. Literature Survey

As for the research on the issue of virtual currency, Du Jinfu (2018) believes that the issuance of virtual currency requires strict market access system, the establishment of payment and settlement system, and the adoption of a safe and stable digital currency issuance mode on the principle of improving efficiency and reducing transaction costs. Li Yujie (2018) proposed to strictly limit the circulation of virtual currency to avoid the devaluation of virtual currency caused by excessive issuance and malicious competition between issuing bodies. Ke Da (2019) believes that in the issuance process, decentralized digital currency issuers need to recognize the underlying agreement of the blockchain to obtain the currency, and centralized digital currency issuers issue the currency according to the underlying agreement established by them. Xu Peng and Lou Yuan (2020) believe that due to the absence of central institutional control, decentralized virtual currency is difficult to obtain effective supervision. To sum up, currency issuance has two forms of "centralization" and "decentralization". In order to maintain the stability of VCC issuance, universities simulate RMB issuance (centralization) to facilitate the recovery and risk control of virtual campus currency.

## 3. Issuing mechanism of Virtual Campus Currency

### 3.1 Subject of issuing virtual campus currency

According to the guiding ideology of the Ministry of Education, the school determines the issuing institution and issuing mechanism of the school. The VCC is issued in a centralized way, using the RMB issuing mechanism for reference. The issuing institution of each school acts as the central bank and is responsible for issuing VCC. The adoption of centralized issuing mode, with the ministry of

education as the supervision institution, will not bring the lack of credit of school issuing institutions. Note that the issuance and circulation of VCC are prohibited to exchange with RMB. Virtual campus currency is only used as an incentive measure in education and teaching, and linking with RMB will bring academic misconduct.

Due to the exchange of VCC among schools to purchase the educational resources of other's schools, a central clearing institution is needed to carry out the exchange and clearing of VCC among schools. The rate of VCC among schools is determined by the comprehensive level of the school and specific educational activities. If a certain teaching activity is very excellent, the VCC quotation of the activity can be appropriately increased, instead of being limited to the comprehensive level of the school as the measurement standard.

### 3.2 Subjects of virtual campus currency transactions

The functional departments of the university can be compared with commercial banks, which are not only the intermediary institutions of VCC, but also the end users. As an intermediary agency, the functional department assigns fixed and additional tasks downward and is responsible for applying upward. Through the functional department, the VCC flows from the school issuing institution to the end users, namely teachers and students. Functional departments need to keep a certain proportion of reserves in the VCC account of the school issuing institution to cope with the shortage of daily VCC expenditure. As end users, functional departments also have their own educational tasks, so they also need VCC.

Teachers and students are the end users of VCC. After the VCC is distributed to each functional department from the issuing institution, it is distributed to the end users according to different educational and teaching activities in a certain number each school year. Students get a certain amount of VCC at the beginning of this studying year to select courses and participate in practical activities, and use the number of VCC to measure the value of courses and activities, which is the process of VCC consumption in the hands of students. VCC can be obtained through voluntary activities and work-study programs, as a way to cultivate students' good behavior, or it can be directly applied for loans from the functional departments of the school, but the repayment must be completed within the school year. The VCC of each academic year cannot be used across periods.

### 3.3 Attributes of virtual currency

The amount of issuance is determined by the educational task of the school this year. The school issuing agency shall issue the fixed assignment to all functional departments of the school, such as the office of Academic Affairs and the Office of Academic Works, which shall be the tasks that all functional departments must complete in this academic year. According to the fixed assignment, each department will add additional tasks according to the actual needs of the

academic year, draw up the assignment and apply to the school issuing agency. According to the fixed tasks and additional tasks of each functional department, the school issuing agency will determine the final issuance amount. To avoid that VCC is insufficient in the practical education activities, functional departments through commitments to virtual campus school issuer, analogous commercial banks under the condition of insufficient funds from the central bank to apply for discount process, specification of commercial paper, submitted to the school issuer, after approval in virtual currency into functional departments, functional departments to task completion evaluation book to the issuer redemption initial commitments.

VCC can be set in different denominations. According to the needs of end users, the circulation convenience of VCC and the currency value required by a single education and teaching task, different denominations can be set. Stipulate VCC has a kind of unit only, minimum trade unit is unit.

VCC does not distinguish between different types. On the one hand, as a measure of value, currency represents the same educational and teaching labor. If there are different types of currency, improper management will easily lead to the phenomenon of "bad currency drives out good currency". On the other hand, the acquisition and consumption of VCC by students involves different kinds of teaching activities, so the issue of virtual campus currency should be able to be freely exchanged, which supports students to obtain VCC through individual efforts, and cultivates students' ability and consciousness of independent labor. The issuance of VCC uses block chain technology. Due to the non-forgery, public transparency and traceability of the block chain technology, the exchange and circulation information among VCC will be recorded, and subject to the joint supervision and maintenance of the virtual campus currency issuance and transaction subjects. By grasping the application mode and flow information of virtual campus currency, school educators can make a more objective and comprehensive evaluation of education and teaching work in this academic year.

### 3.4 Verification and cancellation of virtual currency

At the end of this academic year, the issuing institution will be responsible for the recovery of virtual campus currency during the academic year, including the on-campus currency and VCC exchanged with other institutions. The on-campus virtual currency can be written off by itself through the school's internal account. Off-campus virtual currency needs to be written off by each school and the central clearing institution. Netting is adopted to reduce the complexity of clearing. Based on the recovery of on-campus and off-campus VCC, the year-end VCC accounts of each transaction subject are approved, which is taken as the performance evaluation standard of the department and individual in this academic year. In this academic year, the amount of virtual account is classified and evaluated. After ranking all kinds of virtual campus currency trading subjects in students, teachers, colleges and functional departments of

the school, the education and teaching work of all participants shall be evaluated.

#### 4. Conclusion

This study discusses the application of VCC in education and teaching activities, mainly describes the issue of VCC in detail, from the issue subject, transaction subject; virtual campus currency attributes put forward a complete issue scheme, to ensure the feasibility of the issue of VCC. As for the issuing process of VCC, schools should pay attention to the problems of inflation and ease of use.

The overpayment of VCC causes inflation, which will cause internal and external double depreciation and produce strong negative externality effect. The internal devaluation makes the holders take students as an example, and the course bargain is higher. If the virtual currency held by students does not increase simultaneously, they cannot afford higher-quality courses, which makes the campus full of low-quality courses and fails to play the due incentive role. Foreign devaluation reduces the exchange rate of the school in the central clearing institution, and may also reduce the comprehensive evaluation of the school, thus affecting the competitiveness of the school. In the issuing process, the school issuing institutions are supervised by the guiding ideology of the ministry of education, based on the amount of educational and teaching tasks of this academic year, and constrained by the school's own competitiveness, the over-issuing of VCC cannot happen at will.

The issue of VCC should be in order to facilitate the growth and management of students, and the overly complex issuance and trading rules of VCC should not be set. On the one hand, the implementation of VCC is not easy, the issuance cost is high, and the management is more difficult. On the other hand, it is not good for students to use VCC to improve their learning quality. They pay too much attention to the complex rules of using VCC and distract their learning attention, leaving VCC in the form and causing disorder in the issuing and trading system of virtual campus currency.

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