

Innovative Practices of Community Education Models in the Context of the Internet+

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Abstract. As community education in China enters a period of transformation, it faces numerous challenges and issues. To promote the advancement of community education in line with the times, this study analyzes the development history of community education and delves into the characteristics of innovative models. The research constructs a factor model that influences model innovation, proposing innovative pathways driven by the concepts of open sharing, supported by blended teaching theory, and involving multi-stakeholder collaboration. The study validates these pathways through case examples that use blockchain technology to support open resource sharing, personalized and adaptive learning, and enhanced participation in blended learning. The analysis provides insights into how concepts of openness, adaptability and collaboration are reshaping community education. The research indicates that embracing openness, adaptability, and collaboration is essential for innovating community education models. The relevant concepts, factor model, pathways, and case examples provide valuable guidance for reforming community education in China. Further studies could examine additional technologies, compare different collaboration models, and track long-term impacts.

Keywords: Internet+, community education, education models.

1 Introduction

Currently, China is undergoing a period of social transformation, with various social contradictions becoming more pronounced, and the demand for learning among the public is increasing. As an important force in social governance, community education plays a vital role in disseminating scientific and cultural knowledge, enhancing citizen literacy, and fostering community cohesion. However, community education has long faced challenges such as inadequate resource provision, a single mode of operation, and rigid management systems, making it difficult to meet the requirements of the new era. Therefore, exploring new paths for the development of community education and promoting model innovation is a pressing issue. This study is based on the practical needs of community education development, and through an analysis of the innovation connotations, influencing factors, and the construction of innovative pathways, it explores new directions for the reform of community education. The research outcomes hold important theoretical and practical significance in guiding the scientific development of community education [1].

2 Analysis of Innovative Models in Community Education

2.1 Analysis of the Development History of Community Education

Community education in China started relatively late and has gone through a process of development from inception to rapid growth. After the reform and opening-up, with the rise and development of urban communities, community education gradually expanded and progressed as part of community building. After several decades of vigorous development, community education has become an indispensable component of the public cultural service system, fulfilling essential functions such as knowledge dissemination, quality improvement, and enhanced community cohesion. Currently, China's social structure and public service concepts are undergoing profound changes, and community education is presented with the historical opportunity to undergo transformation and upgrade [2].

2.2 Connotations of Innovative Models in Community Education

Innovative models in community education refer to the process of effectively transforming and optimizing various aspects, including resource allocation, management systems, and service methods, in response to the problems in resource supply, management systems, and the new demands of community residents, within the context of a new era. The essence of innovation lies in adapting education content and forms to the changing needs of the community, emphasizing educational effectiveness, practical problem-solving, and the establishment of a new ecosystem for community education [3].

2.3 Analysis of Factors Influencing Model Innovation

Model innovation in community education is influenced by various factors. Based on literature research, the key influencing factors can be categorized into three aspects: external environment, internal conditions, and innovation subjects. The external environment represents the exogenous force driving innovation, internal conditions provide the foundation for innovation, and innovation subjects are the key to innovation [4].

The model innovation influencing factor model can be represented as follows:

$$MI = f(E, C, S) \quad (1)$$

Where MI represents model innovation, E represents the external environment, C represents internal conditions, and S represents innovation subjects.

Data obtained through a questionnaire survey indicates a significant positive correlation between the three factors (external environment, internal conditions, and innovation subjects) and model innovation. The order of their correlation strength is as follows: innovation subjects > internal conditions > external environment.

3 Construction of Innovative Models

3.1 Model Driven by the Concept of Open Sharing

Under the driving force of the open sharing concept, the community education model undergoes a transformation from closed to open and from static to dynamic. First, educational

resources are made accessible to the community, establishing an open educational resource repository and enabling the data-driven management of resources, facilitating community members' search and access. Second, the educational process becomes transparent, leveraging internet tools to record and publicly disclose teaching processes, subjecting them to social oversight. Third, educational subjects become diverse, breaking away from the traditional single teaching subject pattern, and incorporating various social groups to conduct independent teaching activities. This contributes to the public and inclusive nature of community education, allowing more people to access high-quality educational resources [5]. See Table 1 for details.

Table 1. Characteristics of Community Education Model Driven by the Concept of Open Sharing.

Characteristics	Description
Educational resources are open to the community	Construct an open educational resource library; Realize the data of resources; Facilitate community search and access
The education process is open and transparent	Using Internet means; Record and publish the teaching process in real time; Accept public supervision
The main body of education is open and diversified	Break the traditional pattern of single teaching subject; Absorb different social groups to carry out teaching activities independently
Enhance the publicity and inclusiveness of community education	Let more people have access to quality educational resources; Promote social participation and participation in community education

3.2 Blended Teaching Theoretical Framework

The blended teaching theory provides a guiding framework for innovation in community education models. Its fundamental principle is the integration of online and offline elements, leveraging their advantages in terms of time, space, and methodology to achieve seamless cohesion. Online learning can utilize the internet to overcome time and geographical constraints, while offline learning reinforces face-to-face experiences and interactive communication. Simultaneously, it integrates various teaching methods such as in-person lectures, self-directed learning, and group discussions to diversify both form and content. Blended teaching optimizes the learning process, enhances learning outcomes, meets personalized requirements, and ensures group interaction [6].

```
from flask import Flask, render_template
app = Flask(__name__)
# Suppose you have some sample courses
courses = [
    {"id": 1, "name": "Lesson 1", "description": "This is the description of lesson 1"},
    {"id": 2, "name": "Lesson 2", "description": "This is the description of lesson 2"},
    {"id": 3, "name": "Lesson 3", "description": "This is the description of lesson 3"}
]
```

```
@app.route('/')
def index():
    return render_template('index.html', courses=courses)
if __name__ == '__main__':
    app.run()
```

3.3 Multi-Stakeholder Collaborative Innovation Mechanism

Building a collaborative innovation mechanism involving multiple stakeholders, including government, community, schools, and businesses, breaks down barriers between various departments, creating synergy. Clearly defining the advantages of each stakeholder in terms of resources, technology, facilities, and expertise, and establishing a standardized coordination mechanism, they provide mutual support, integrate resources, leverage their strengths, and collectively drive innovation in community education models. This results in a symbiotic pattern where all stakeholders share interests, resources, responsibilities, risks and rewards. The multi-stakeholder mechanism enables the pooling of funding, technologies, teaching resources, and community connections to pilot new initiatives, collect feedback, and scale successful innovations. With clear incentives and an institutionalized structure, diverse stakeholders can continuously collaborate to advance community education [7].

4 Case Validation

4.1 Case One: Blockchain-Driven Open and Shared Community Education

Community X, aiming to break the closed nature of educational resources, adopted blockchain technology to establish an open and shared education resource platform. Through blockchain's distributed ledger and encryption algorithms, it achieved decentralized storage and protection of resource data. Users can upload and access various educational resources, with clear copyright ownership and traceable usage behavior, ensuring data authenticity and privacy security. The platform has accumulated 1,235 educational resources, including videos and documents, and gained 15,823 registered users within a month, resulting in a 43% overall increase in resource utilization compared to the past. The platform's operation and management have become transparent, allowing community members to participate in supervision, effectively reducing management costs [8-9].

4.2 Case Two: Blended Learning Model of Online and Offline

Community Y has implemented a demonstration course utilizing a blended learning model of online and offline components. Online learning employs mini-programs, videos, and other digital formats delivered through smartphones, emphasizing flexible knowledge acquisition. Offline activities held at community centers involve face-to-face interaction, hands-on experiential learning, and collaborative discussions. Surveys indicate that online learning coverage reached 89% of residents, with a 74% participation rate for offline activities. Leveraging technology expanded reach while in-person events encouraged engagement. Overall, learners' interest and time spent studying increased by 60%, and learning outcomes

significantly improved compared to traditional classroom teaching. Ninety-six percent of respondents stated that the blended model enhanced their sense of achievement and participation by combining self-paced and social learning. This case demonstrates the unique advantages of an integrated blended learning model in improving community education outcomes. The hybrid model provides a valuable reference for utilizing technology while retaining human interaction [10]. See Figure 1 for details.

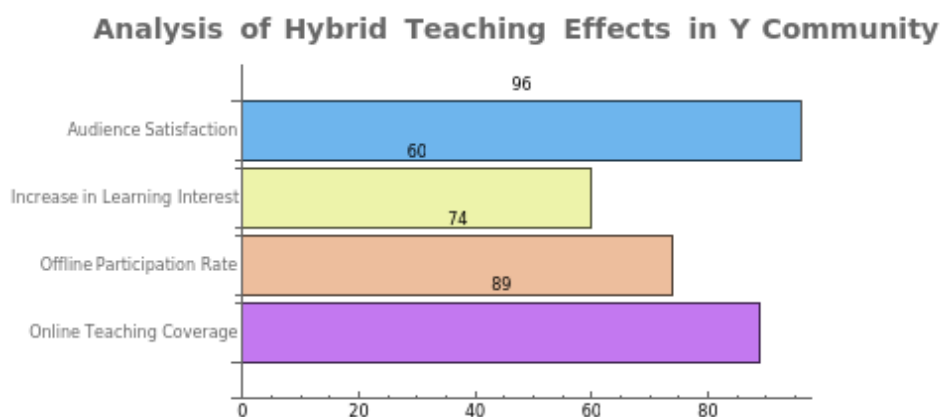


Figure 1 Various Metrics of Blended Learning in Community Y.

5 Conclusion

Through an analysis of the development history of community education and the connotations of model innovation, this study identifies external environment, internal conditions, and innovation subjects as key factors influencing model innovation. Based on these findings, it constructs an innovation pathway for community education models driven by the concepts of open sharing, supported by blended teaching theory, and involving multi-stakeholder collaboration. Key case validations demonstrate that blockchain technology can effectively support open resource sharing, while blended learning can enhance participation and effectiveness. The research indicates that for community education models to adapt to the new era, comprehensive innovation is necessary, emphasizing an open, integrated, and collaborative development direction. The relevant concepts and pathways provide valuable insights and guidance for future community education reforms.

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