

Original Research Article

Research on the influence of innovation and entrepreneurship education curriculum system and practice platform on rural college students' willingness to return home for entrepreneurship

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Abstract: Against the background of the rural revitalization strategy, this paper explores the influence of the innovation and entrepreneurship education curriculum system and practice platform on the willingness of rural college students to return home for entrepreneurship. The results show that both the curriculum system and practice platform can significantly improve the willingness to return home for entrepreneurship, and the practice platform has a stronger effect; entrepreneurial self-efficacy plays a partial mediating role between them. Colleges and universities should construct a local-oriented innovation and entrepreneurship education system, strengthen practical education, and support the talent backflow for rural revitalization.

Keywords: innovation and entrepreneurship education; curriculum system; practice platform; willingness to return home for entrepreneurship; rural college students

1. Introduction

The core of rural revitalization lies in talent support. Guiding rural college students with professional literacy and innovative ability to return home for entrepreneurship has become an important measure to address the shortage of rural talents and stimulate rural development momentum. As a crucial antecedent variable of entrepreneurial behavior, the willingness to return home for entrepreneurship directly affects college students' decision and persistence in starting businesses in rural areas. Innovation and entrepreneurship education in colleges and universities is the core link to shape entrepreneurial cognition, cultivate entrepreneurial ability and stimulate entrepreneurial willingness. The curriculum system undertakes the functions of knowledge supply and value guidance, while the practice platform is responsible for ability transformation and scenario experience. Together, they constitute the key educational factors affecting entrepreneurial willingness.

Most existing studies focus on the effect of entrepreneurship education on overall entrepreneurial willingness, with few targeted studies on rural-origin college students. In addition, few studies simultaneously distinguish the differential impacts and internal psychological transmission mechanisms of the curriculum system and practice platform. Based on the Theory of Planned Behavior and Self-Efficacy Theory, this paper takes rural college students as research objects, empirically analyzes the influence of innovation and entrepreneurship education curriculum system and practice platform on their willingness to return home for entrepreneurship, and tests the mediating effect of self-efficacy, so as to provide theoretical basis and practical path for colleges and universities to optimize the innovation and entrepreneurship education structure and accurately serve rural talent revitalization.

2. Theoretical basis and research hypotheses

2.1. Theoretical basis

The Theory of Planned Behavior holds that behavioral attitude, subjective norms and perceived behavioral control jointly determine individual behavioral intention. In the scenario of returning home for entrepreneurship, innovation and entrepreneurship education improves college students' attitude towards rural entrepreneurship, strengthens perception of social support, enhances self-efficacy through knowledge

imparting and practical training, and ultimately promotes the formation of entrepreneurial willingness. Self-efficacy reflects individuals' confidence in completing entrepreneurial tasks, and serves as an important psychological mediating variable connecting educational input and behavioral intention. The curriculum system helps students establish systematic cognition, and the practice platform improves practical ability. Both of them indirectly promote the willingness to return home for entrepreneurship by improving self-efficacy.

2.2. Research hypotheses

H1: The innovation and entrepreneurship education curriculum system has a significant positive impact on rural college students' willingness to return home for entrepreneurship. Systematic and hierarchical innovation and entrepreneurship courses can popularize entrepreneurial knowledge, cultivate local entrepreneurial awareness, and enhance students' value identity and feasibility judgment of returning home for entrepreneurship.

H2: The innovation and entrepreneurship practice platform has a significant positive impact on rural college students' willingness to return home for entrepreneurship. Real-scenario practice, project-based training and university-enterprise collaborative practical training can improve students' practical ability, strengthen confidence in returning home for entrepreneurship, and directly promote the formation of entrepreneurial willingness.

H3: Entrepreneurial self-efficacy plays a partial mediating role between the curriculum system, practice platform and the willingness to return home for entrepreneurship. Curriculum and practice can not only directly affect willingness, but also indirectly promote willingness generation by improving self-efficacy.

3. Research design

3.1. Sample selection and data source

A stratified sampling method was adopted to select 3 applied undergraduate colleges and vocational colleges in Northeast China as research units, and rural college students as survey objects. A total of 400 questionnaires were distributed, and 376 valid questionnaires were recovered, with an effective recovery rate of 94.0%. Among the samples, 192 were males and 184 were females; 104 were agriculture-related majors and 272 were non-agriculture-related majors; the number of freshmen to seniors was 91, 95, 98 and 92 respectively.

3.2. Variable measurement

Independent variables include Curriculum System and Practice Platform. The curriculum system is measured from three dimensions: General education, professional-entrepreneurship integration and local characteristics. The practice platform is measured from three dimensions: On-campus training, university-enterprise practice and entrepreneurship incubation. The dependent variable is Willingness to Return Home for Entrepreneurship, measured from behavioral tendency, action preparation and persistence. The mediating variable is Entrepreneurial Self-Efficacy, measured from three dimensions: Ability confidence, resource integration and frustration resistance. All items were scored on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).

3.3. Reliability and validity test

The overall Cronbach's α coefficient of the questionnaire is 0.918, all dimensions are higher than 0.80, and the composite reliability (CR) is higher than 0.85, indicating good reliability. The KMO value is 0.892, and the Bartlett sphericity test is significant ($p < 0.001$), indicating that the data are suitable for factor analysis and regression analysis.

4. Empirical analysis

4.1. Correlation analysis

The mean values of all variables range from 3.15 to 3.82, which are generally at a medium to upper level. Pearson correlation analysis shows that curriculum system, practice platform, self-efficacy and willingness to return home for entrepreneurship are significantly positively correlated at the 0.01 level,

providing preliminary support for hypothesis testing.

Table 1. Results of variable correlation analysis.

Variable	Mean	Std. Deviation	1	2	3	4
1. Curriculum System	3.62	0.71	1			
2. Practice Platform	3.69	0.68	0.67**	1		
3. Self-Efficacy	3.65	0.69	0.64**	0.70**	1	
4. Willingness to Return Home for Entrepreneurship	3.53	0.74	0.58**	0.63**	0.66**	1

Note: ** $p < 0.01$ (two-tailed test).

4.2. Regression analysis

Regression results show that the standardized regression coefficient of the curriculum system on the willingness to return home for entrepreneurship is 0.318 ($p < 0.001$), and that of the practice platform is 0.351 ($p < 0.001$), indicating that H1 and H2 are supported, and the influence of the practice platform is slightly stronger than that of the curriculum system. After adding self-efficacy, the coefficients of the curriculum system and practice platform drop to 0.189 and 0.212 ($p < 0.01$) respectively, and the coefficient of self-efficacy is 0.357 ($p < 0.001$), indicating that self-efficacy plays a partial mediating role, and H3 is supported.

Table 2. Results of regression analysis.

Model	Independent Variable	Standardized Coefficient	t	R ²	F
Model 1	Curriculum System	0.318	7.68**	0.207	58.94**
Model 2	Practice Platform	0.351	8.27**	0.239	68.43**
Model 3	Curriculum System Practice Platform Self-Efficacy	0.189 0.212 0.357	4.12** 4.51** 7.76**	0.418	82.19**

Note: ** $p < 0.001$.

4.3. Difference analysis

Grouped by major type, students majoring in agriculture-related fields are significantly higher than those in non-agriculture-related majors in curriculum perception, practice experience and willingness to return home for entrepreneurship. Grouped by practice participation degree, the mean willingness to return home for entrepreneurship of students deeply involved in the practice platform (3.89) is significantly higher than that of students without or shallow participation (2.84), indicating that the depth of practice participation significantly promotes willingness activation.

5. Results and discussion

The innovation and entrepreneurship education curriculum system can significantly improve rural college students' willingness to return home for entrepreneurship. General courses lay a solid foundation for innovation and entrepreneurship, professional-entrepreneurship integration courses strengthen the combination of major and entrepreneurship, and local characteristic courses connect rural industrial needs, helping students establish a clear cognition of returning home for entrepreneurship and enhance value identity and behavioral tendency, which is consistent with the research conclusion of curriculum system reconstruction from the perspective of industry-education integration.

The practice platform has a more prominent driving effect on the willingness to return home for entrepreneurship. Real scenarios such as on-campus training, university-enterprise practice and incubation bases enable students to improve practical ability, market perception and risk response ability through "learning by doing", enhance judgment on the feasibility of returning home for entrepreneurship, and then directly strengthen entrepreneurial willingness. This result is consistent with the conclusion that practice and competitions have the strongest impact on entrepreneurial willingness in existing studies.

The partial mediating role of self-efficacy shows that curriculum and practice can not only directly affect willingness, but also indirectly promote the formation of willingness to return home for entrepreneurship by improving students' entrepreneurial confidence, frustration resistance and resource integration belief. The transmission role of psychological mechanism is prominent, which means that colleges and universities should take into account knowledge imparting, ability training and mentality cultivation in innovation and entrepreneurship education.

The regulatory effects of major differences and practice participation are also obvious. Agriculture-related majors have higher willingness to return home due to higher fit with rural industries; students with deep practice participation gain real experience and have more stable willingness. This suggests that colleges and universities should implement classified education, design differentiated curricula and practice programs for different majors, expand practice coverage, and improve the accuracy of education.

6. Conclusions and suggestions

6.1. Research conclusions

Both the innovation and entrepreneurship education curriculum system and practice platform have significant positive impacts on rural college students' willingness to return home for entrepreneurship, and the effect of the practice platform is slightly stronger than that of the curriculum system.

Entrepreneurial self-efficacy plays a partial mediating role among curriculum system, practice platform and willingness to return home for entrepreneurship, forming a transmission path of "education-psychology-willingness".

The willingness to return home for entrepreneurship of agriculture-related majors is significantly higher than that of non-agriculture-related majors; the deeper the practice participation, the stronger the willingness to return home for entrepreneurship.

6.2. Practical suggestions

Construct a local-oriented innovation and entrepreneurship curriculum system Integrate rural revitalization policies, rural industry cases and local entrepreneurial models into the curriculum, build a hierarchical curriculum structure of "general + professional-entrepreneurship integration + local characteristics", strengthen the connection between curriculum and rural demand, and improve the pertinence and attractiveness of the curriculum.

Build a collaborative and linked practice platform system Deepen university-local and university-enterprise cooperation, jointly build rural entrepreneurship training bases, maker spaces and incubation platforms, carry out rural research, project practice, competition roadshows and other activities, form a whole-chain practical education mode of "training-practice-incubation", and strengthen actual combat experience.

Strengthen the cultivation of entrepreneurial self-efficacy Improve students' entrepreneurial ability and frustration resistance through case teaching, simulated operation and one-on-one tutor guidance, cultivate a positive entrepreneurial mentality, and unblock the psychological transmission mechanism.

Implement classified and precise education Design curricula and practice programs for agriculture-related and non-agriculture-related majors respectively, encourage non-agriculture-related students to participate in rural entrepreneurship practice; expand practice coverage, provide practical opportunities for more rural-origin students, and fully activate the willingness to return home for entrepreneurship.

6.3. Research limitations and prospects

This study does not include external variables such as policy support and family attitude. In the future, multi-dimensional regulatory factors can be introduced for a more comprehensive analysis. Meanwhile, this study adopts cross-sectional data, and longitudinal tracking can be conducted to explore the long-term impact of innovation and entrepreneurship education on the transformation of willingness and behavior of returning home for entrepreneurship.

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References

- [1] Zheng, J. (2026). Research on the construction of innovation and entrepreneurship education curriculum system in higher vocational colleges from the perspective of industry-education integration. *Innovation and Entrepreneurship Theory Research and Practice*, 9(6), 62–65.
- [2] Liu, H. (2025). Research on the influence path of innovation and entrepreneurship education in higher

vocational colleges on college students' entrepreneurial willingness: Based on the mediating effect of self-efficacy. *Life Education*, (34), 77–82.

[3] Wang, X. B., Feng, Z. J., Chen, B. B., & Zheng, P. J. (2026). Optimization path and practical exploration of innovation and entrepreneurship education in higher vocational colleges. *Agricultural Products Processing*, (6), 140–144.

[4] Zhang, X. E., Wang, C., & Li, S. (2022). Institutional environment, entrepreneurial self-efficacy and entrepreneurial willingness. *Science Research Management*, 43(5), 59–66.

[5] Lu, C., Wang, J. Q., Chang, M. Y., Liu, C. Y., & Dou, H. L. (2021). Investigation on the willingness of applied undergraduate college students to return home for entrepreneurship under the background of rural revitalization. *Rural Science and Technology*, 12(2), 24–25.