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Research on the digital skill training model for returning college students assisting farmers through live streaming

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Abstract

To enhance the digital skills of returning college students in agricultural live streaming assistance and address the bottleneck issue of rural e-commerce talent, this paper constructs a training model focusing on system building, resource integration, and outcome transformation, addressing current issues such as training cognitive biases and imperfect systems. Research indicates that this model can improve college students' practical abilities, facilitate the upward movement of agricultural products, inject digital momentum into rural revitalization, and provide practical support for the implementation of the "Digital Commerce Promotes Agriculture" policy.

Keywords

Returning college students; Live streaming to assist farmers; Digital skills training; Rural revitalization.

1. Introduction

In his speech at the Central Rural Work Conference, General Secretary Xi Jinping emphasized that the key to revitalizing rural areas lies in people and practical actions. As the construction of digital villages accelerates, rural e-commerce has become a key driver for expanding sales channels for agricultural products and increasing farmers' income. The No. 1 central document of 2025 clearly focuses on the high-quality development of rural e-commerce and proposes to improve relevant mechanisms for rural talent cultivation and development, providing policy guidance for returning college students to engage in agricultural live streaming. Returning college students are a group with knowledge reserves and innovative vitality, and they are a key new force driving the digital marketing of agricultural products. However, most college students lack systematic digital skills in live streaming, with deficiencies in account operation, content creation, and traffic conversion, making it difficult to meet the practical needs of agricultural live streaming. Digital skills training, as an effective solution to the difficulties faced by returning college students in agricultural live streaming, can help them master practical skills throughout the entire live streaming process and enhance the promotion of agricultural products online. Currently, digital skills training for returning college students in agricultural live streaming faces issues such as a single training mode, insufficient specificity, and inadequate resource integration. There is no empowerment mechanism that can function over the long term. Therefore, it is of great practical significance to deeply study the digital skills training mode for returning college students in agricultural live streaming and build a scientific and comprehensive training system to cultivate talents in rural e-commerce, promote the implementation of the "Digital Commerce Promotes Agriculture" policy, and help rural areas achieve revitalization.

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2. The Practical Dilemmas of Digital Skills Training for Returning College Students in Live Streaming to Assist Farmers

2.1. Cognitive Bias in Training, Insufficient Endogenous Motivation

Some returning college students lack a thorough understanding of the crucial role of digital skills in agricultural live streaming assistance. In practical actions, they tend to prioritize theory over practical operation and focus on formality rather than actual results, leading to misunderstandings. Furthermore, their willingness to actively participate in training is not strong. On one hand, some students lack a clear career plan and view agricultural live streaming assistance as a temporary endeavor, without developing a sense of continuous learning. On the other hand, influenced by traditional employment concepts, some students are not confident enough in the future career development prospects of the rural e-commerce field, resulting in low enthusiasm for participating in training. This makes it difficult to ensure the effectiveness of their training.

2.2. The Training System is Imperfect, With Low Matching Degree Between Supply and Demand

Currently, the training of digital skills for agricultural live streaming primarily adopts short-term lectures and scattered courses, lacking a systematic and hierarchical training system [1]. In terms of curriculum design, the differences in skill foundations among returning college students are often overlooked, and a one-size-fits-all teaching model is adopted. This makes it difficult for students with weak foundations to keep up with the progress, while those with some foundation find it hard to improve. In terms of content design, there is an emphasis on theoretical teaching and a neglect of practical exercises. Core practical skills such as AI tool application, live streaming script writing, and data analysis are not sufficiently covered, which is out of touch with the actual needs of agricultural live streaming and cannot effectively solve practical problems encountered by college students during live streaming.

2.3. Insufficient Resource Integration and Weak Practical Support

During the training process, the three parties of schools, local governments, and enterprises did not coordinate and collaborate effectively, lacking sufficient ability to integrate resources, which made the practical teaching link relatively weak [2]. Although universities have certain advantages in theoretical teaching, they lack real live training scenarios; local e-commerce bases have abundant practical operation resources, but their professional teaching ability is relatively limited; enterprises' participation in training is not high, and they cannot effectively leverage their own industrial resource advantages. After the training, there is a lack of continuous resource docking and follow-up support, and students face problems such as being unable to apply the learned knowledge and having no audience during live broadcasts. It is difficult for skill learning to be transformed into actual effectiveness in helping farmers.

2.4. Lack of Safeguard Mechanisms and Insufficient Sustainability

The lack of a comprehensive support mechanism for training has significantly hindered the long-term effectiveness of training initiatives. In terms of faculty, there is a severe shortage of "dual-qualified" instructors who possess both solid theoretical knowledge and extensive practical experience. Consequently, it becomes challenging to ensure teaching quality. Regarding funding, the sources of training funds are relatively limited, and relying solely on one channel for funding makes it difficult to support various tasks such as curriculum development, equipment procurement, and traffic support. In terms of incentives, an effective evaluation and incentive system has not yet been established, making it impossible to continuously motivate trainees to participate in training. This leads to training programs easily falling into short-lived predicaments.

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3. The Value of Digital Skills Training for Returning College Students Through Live Streaming to Assist Farmers

3.1. Strengthen Practical Skills and Enhance Employment and Entrepreneurship Competencies

By leveraging a systematic curriculum system and immersive practical training, we aim to help returning college students comprehensively master the core skills of the entire agricultural live streaming process. In the account operation segment, we provide precise guidance on account positioning and persona building, and combine local agricultural product characteristics to create differentiated content. In the content creation module, we teach scripting methods, application of AI tools, and scene presentation techniques. In the equipment operation level, we cover practical skills such as shooting debugging and low-cost scene setup. In the interaction transformation segment, we specifically conduct speech training and enhance the ability to create an atmosphere. In the data review stage, we provide detailed explanations of data analysis and strategy optimization methods, addressing skill shortcomings from various aspects. Relying on a systematic learning model, and utilizing team collaboration, task execution, and resource docking, we cultivate college students' comprehensive qualities such as organizational coordination, communication expression, and supply-demand matching, laying a solid foundation for their employment and entrepreneurship. We aim to promote their growth into practical talents with professional skills and comprehensive qualities in rural e-commerce, injecting new vitality into the digital transformation of rural industries.

3.2. Activate Rural Momentum and Promote the Upward Circulation of Agricultural Products

After undergoing systematic digital skills training, returning college students have mastered the core competencies of agricultural live streaming. At this point, they can rely on mainstream live streaming platforms such as Tiktok and Kwai to comprehensively promote local agricultural products with distinctive features, such as strawberries and handmade soy products. This can break the geographical constraints and information barriers that exist in traditional offline sales, accurately connecting the scattered output of farmers with the vast online consumer market, effectively expanding the sales channels of agricultural products, and solving the sales obstacles faced by remote rural agricultural products that are "hidden in the boudoir and unknown to people". By deeply exploring the connotations behind agricultural products, such as regional culture, intangible cultural heritage crafts, and ecological planting concepts, we can create differentiated agricultural product brand identities and communication stories. With a series of combined strategies such as short video preheating, live streaming special promotions, and influencer collaboration promotion, we can enhance the popularity and reputation of the products. In this way, we can increase the added value of agricultural products and promote the transformation of rural industries from extensive planting and sales to refined brand operations. In addition, the consumption data accumulated during the live streaming process can also guide farmers to optimize their production structure and improve the quality of their products, forming a digital closed loop of "demand-production-sales". This injects continuous momentum into the digital transformation of rural industries, helping the "digital commerce for agricultural prosperity" strategy take root at the grassroots level and laying a solid industrial foundation for rural revitalization.

3.3. Cultivate a Strong Sense of Nationalism and Enhance Responsibility and Commitment

During the systematic digital skills training, various activities such as policy interpretation seminars, in-depth rural research visits, and immersive agricultural assistance practices will be

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arranged. These activities will allow students to delve into the fields, cooperatives, and rural enterprises. In this way, university students can comprehensively observe the real picture of rural industrial development. They can see the innovations and changes brought by digital technology to agricultural production and agricultural product sales, and can directly face the challenges of resource integration and transformation needs in the process of rural development. With such experiences, university students can deeply understand the connotation and significance of the rural revitalization strategy in this era. In the process of personally experiencing the potential of rural development and the warmth of people's livelihood, they will gradually eliminate cognitive biases towards rural areas and enhance their sense of identity and belonging to their hometown. In the subsequent practical operation of helping promote agricultural products, university students will use live streaming to broaden the sales channels of agricultural products. They can witness firsthand how farmers' previously unsalable agricultural products become popular items, driving farmers to increase their income and achieve prosperity. This real experience of knowledge empowering practice and skills creating value will allow university students to deeply appreciate the practical value of their learned professional knowledge and mastered digital skills. They will break the inherent idea that self-worth can only be realized in the city, form a professional philosophy of serving the countryside and contributing to society, actively align their personal career planning with the rural revitalization strategy, integrate their youthful ideals into the overall situation of rural development, cultivate a strong sense of nationalism in the process of taking root at the grassroots level and helping industrial upgrading, strengthen their responsibility and commitment to "strengthening agriculture and revitalizing agriculture is my duty", and ultimately grow into a key force for rural revitalization with professional expertise and a sense of mission.

4. The Construction Path of the Digital Skill Training Model for Returning College Students to Assist Farmers Through Live Streaming

4.1. Improve the Training System to Achieve Precise Empowerment at Different Levels

Build a full-process training system covering "mobilization-training-evaluation-tracking" to enhance the relevance and effectiveness of training. In the mobilization stage, various methods such as policy advocacy, showcasing typical cases, and conducting experience exchanges will be utilized to fully stimulate the intrinsic motivation of returning college students to participate in training. In the training stage, a hierarchical and classified teaching model will be adopted. For those trainees without any experience, basic courses will be specially designed, focusing on equipment usage, platform rules, basic scripts, and other aspects. For trainees with a certain foundation, advanced courses will be offered, focusing on script optimization, AI tool application, traffic operation, brand building, and other related content. This approach is designed to meet the learning needs of different trainees, which is consistent with the concept of the three-dimensional training model of "theory + practical operation + real combat" established in some regions. In the evaluation stage, an assessment mechanism combining process evaluation and outcome evaluation will be established. Through practical drills, live combat practice, and skill assessments, the effectiveness of training will be comprehensively evaluated. In the tracking stage, mutual assistance groups will be formed, and a long-term tracking mechanism will be established. Regular Q&A guidance activities will be carried out to promptly solve various problems encountered by trainees during live broadcasts.

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4.2. Deepen Collaboration Among Schools, Local Governments, and Enterprises to Build a Diversified Practice Platform

A three-dimensional collaborative training platform consisting of universities, local governments, and enterprises is established to integrate resources from all parties and strengthen practical support. Universities can leverage their professional advantages, primarily responsible for course design, theoretical teaching, and faculty allocation. Local governments should take the lead in coordinating efforts, such as providing training venues, selecting suitable trainees, and connecting with rural resources, to facilitate the smooth implementation of training projects. E-commerce enterprises and agricultural cooperatives are required to provide practical training scenarios and resources, assign experienced broadcasters as practical mentors, and guide practical operations. This aligns with the core logic of the "four-subject and three-level" collaborative education model, jointly building a practical training base for school-local cooperation, allowing trainees to participate in real live broadcast training in e-commerce bases, thus achieving a seamless connection of "theoretical learning, practical training, and real-world practice", and enhancing the ability to apply skills [3]. Just like some universities have moved their live broadcast rooms to the fields in the countryside, allowing students to hone their skills in real industrial settings.

4.3. Build an Incubation Chain to Promote the Transformation and Implementation of Research Outcomes

We have established a full-chain incubation system encompassing "training-practice-entrepreneurship", leveraging this approach to facilitate the transformation of skill learning towards practical outcomes that benefit agriculture. Upon completion of training, we provide support in various aspects, such as traffic assistance and resource matching, to outstanding trainees. This approach draws inspiration from the practical incubation system of "platform support + traffic assistance + supply chain integration" employed in some regions [4]. Subsequently, we have set up a platform for supply chain matching, aiming to foster cooperation between trainees and local cooperatives and farmers, thereby ensuring the supply of goods during live broadcasts. Furthermore, we collaborate with local entrepreneurial parks to offer a range of comprehensive services, including business plan optimization, intellectual property protection, and investment and financing matching, to those trainees with entrepreneurial aspirations, assisting them in realizing their entrepreneurial dreams. Additionally, we have established a training achievement display platform, promoting exemplary cases through events such as trainee achievement exhibitions and live broadcast competitions, thereby expanding the influence of agricultural assistance.

4.4. Strengthen the Support Mechanism and Enhance the Sustainability of Training

In order to ensure the long-term effective operation of the training model, it is necessary to improve the support mechanisms such as teacher resources, funding, and incentives, providing effective assistance through these means. In terms of teacher resource development, a "dual-qualified" mentor team should be established, consisting of university teachers, experienced broadcasters, and industry experts. University teachers are mainly responsible for theoretical teaching, imparting relevant theoretical knowledge to the trainees; experienced broadcasters provide guidance on practical operations, allowing trainees to enhance their skills through practice; industry experts interpret policy trends to help everyone understand the development direction of the industry. This approach can compensate for the deficiencies of a single teacher structure. In terms of funding support, ways should be found to broaden the sources of funding. On the one hand, actively seek special funding support from the government to allow government funds to assist training efforts [5]; on the other hand, attract sponsorship

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from enterprises to leverage their resources to secure funding; also, integrate resources from universities, making rational use of human and material resources to ensure that training can be carried out in an orderly manner as planned. In terms of incentive mechanisms, a recognition and reward system should be established. For those trainees and mentors who perform well, public recognition should be given to acknowledge their efforts and achievements. Furthermore, training outcomes should be linked to employment recommendations and entrepreneurial support for trainees, allowing them to truly feel the benefits of training. Through these means, the enthusiasm of all parties involved in training can be mobilized, thereby meeting the long-term development requirements of rural talent cultivation.

4.5. Establish Distinctive Brands and Achieve Differentiated Development

Combining regional characteristics with disciplinary advantages, we aim to create a personalized and differentiated training brand. We design targeted training content based on the characteristics of local agricultural products. For example, we conduct specialized live marketing training for fresh produce areas, design courses on brand promotion for intangible cultural heritage agricultural product areas, and leverage the disciplinary resources of universities to leverage the strengths of different majors. The social work major focuses more on student management and resource matching, the digital media major emphasizes content creation and technical support, while the economic management major focuses on brand building and operational strategies. This forms a training model of "one region, one product" and "one school, one characteristic", which can enhance the precision of training and expand its influence. This is similar to the development approach adopted in some regions, which deeply integrates talent cultivation with industrial upgrading and cultural dissemination.

5. Conclusion

The training of returning college students in digital skills for agricultural live streaming is a crucial measure to cultivate rural e-commerce talents and promote rural revitalization. However, the training work has encountered problems, including cognitive biases, an imperfect training system, insufficient training resources, and a lack of safeguard measures. These multiple difficulties have restricted the full effectiveness of the training. Nevertheless, if we can build a comprehensive layered training system, deepen the collaborative platform between schools, local governments, and enterprises, create a full-chain incubation mechanism, strengthen diversified safeguard measures, and shape a distinctive training brand, we can effectively solve the existing problems. In the future, it is necessary to optimize the training mode to deeply integrate digital skills training with the needs of rural industries. This will enable returning college students to truly master the skills of agricultural live streaming, making them key forces in promoting the upward movement of agricultural products and activating rural development momentum. It will provide solid support for the implementation of the "digital commerce for agricultural prosperity" strategy and help rural areas achieve high-quality revitalization and development.

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