Research on the Innovation of Talent Cultivation and Employment Assistance Pathways for Higher Vocational Landscape Architecture Talents from the Perspective of Digital-Intelligent Farming-Reading Education

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Abstract: The digital-intelligent transformation of the landscape architecture industry has imposed new requirements on higher vocational landscape engineering technology talents in terms of digital literacy, on-site construction capability, and innovation and entrepreneurship ability. Digital-intelligent farming-reading education integrates digital technology with the concept of farming-reading education, unifying labor practice, professional teaching, and value shaping. Taking the Landscape Engineering Technology major of the School of Landscape Architecture and Art at Nantong College of Science and Technology as the research object, it is found that the major currently faces problems such as insufficient integration of digital-intelligent farming-reading education, inadequate linkage among positions, courses, competitions, and certificates, and low precision in employment assistance.

***Keywords*:** digital-intelligent farming-reading education; higher vocational landscape architecture; talent cultivation; employment assistance

1. Introduction

Contemporary vocational education emphasizes the educational philosophy of equal importance of virtue and skill and the integration of work and learning. Farming-reading education is an effective approach to implementing labor education and cultivating rural sentiments among agriculture-related majors. With the rapid development of new business forms such as smart landscape architecture, digital landscape design, BIM landscape modeling, and digital landscape operation and maintenance, traditional talent cultivation models for landscape architecture can no longer meet the job requirements of the industry. Digital-intelligent farming-reading education is to integrate digital technology into the scenarios of farming-reading education, combining field training and landscape construction labor with digital design and digital project management, thereby achieving the consistency of "reading" (theoretical learning), "farming" (labor practice), and "digital intelligence" (technological empowerment) [1].

2. The Connotation of Digital-Intelligent Farming-Reading Education and the Educational Logic of Higher Vocational Landscape Architecture Majors

2.1 The Core Connotation of Digital-Intelligent Farming-Reading Education

Traditional farming-reading education focuses on field labor, agricultural culture inheritance, and labor character shaping; digital-intelligent farming-reading education, while retaining the core of labor practice, integrates modern digital technologies such as BIM, GIS, UAV aerial surveying, AI plant identification, and digital landscape modeling, expanding farming-reading practice from offline physical sites to virtual simulation spaces. The essence of digital-intelligent farming-reading education is to reshape the three educational domains of theory, virtual simulation, and physical farming-reading practice [2].

2.2 The Internal Logic of Talent Cultivation and Employment Assistance for Landscape Architecture Majors

With talent cultivation innovation as the premise, employment assistance as the implementation lever, and high-quality employment as the goal. On the one hand, the digital-intelligent farming-reading education system cultivates students' ecological sentiments and craftsman spirit through labor practice, addressing the problem of emphasizing theory over practice.

3. Survey Status and Practical Dilemmas of the Landscape Engineering Technology Major

The survey subjects were current students, past graduates, and landscape enterprise employers of the landscape engineering technology major. Interviews were conducted to understand current problems, and the collected information was organized in combination with the school's skills competition, farming-reading training, and employment assistance work materials.

3.1 Shallow Integration of Digital-Intelligent Farming-Reading Education and Insufficient Supply of Digital Training Scenarios

The major currently offers digital courses such as Landscape CAD and BIM Basics, and has an on-campus landscape training base and farming-reading field classroom. Farming-reading training mostly remains at traditional labor tasks such as seedling cultivation and site preparation, lacking the integration of digital modeling, aerial surveying, virtual construction simulation, and other technologies into field farming-reading.

3.2 Insufficient Linkage among Positions, Courses, Competitions, and Certificates, and Poor Transformation of Competition Education Outcomes

The school has created a model of "promoting learning through competition, strengthening abilities through competition, and promoting employment through competition," selecting students to form training teams, conducting intensive training on main skills such as construction practice and scheme design, and simulating real project scenarios. There is a lack of integrated design among competition training, courses, and vocational certificate assessment, and competition advantages cannot be transformed into the job competitiveness of all students in bulk [3].

4. Implementation Pathways for Landscape Talent Cultivation Innovation and Employment Assistance from the Perspective of Digital-Intelligent Farming-Reading Education

Based on the actual educational situation of the landscape engineering technology major and relying on the experience of skills competition education, an integrated pathway of "concept reconstruction, curriculum innovation, and full-cycle employment assistance" is created.

4.1 Reconstructing the Educational Concept of Digital-Intelligent Farming-Reading Education and Building a Virtual-Real Integrated Teaching Field

The on-campus farming-reading training base is upgraded, and in farming-reading practice tasks such as seedling planting, site construction, and landscape maintenance, UAV site surveying and mapping, BIM construction simulation, and digital plant archiving are integrated. When students carry out landscape construction labor in the field, they use digital tools to collect site data and create three-dimensional landscape models, and Nantong local landscape culture and Tongpai bonsai elements are integrated into design tasks, strengthening design capabilities with regional characteristics with the assistance of local cultural resources.

4.2 Innovating the Curriculum System and Promoting the Deep Integration of Positions-Courses-Competitions-Certificates with Digital-Intelligent Farming-Reading Education

The talent cultivation program for the landscape engineering technology major is revised, course content is modularly reorganized, and elements such as digital-intelligent technology, farming-reading labor, job standards, and competition test points are integrated into core professional courses.

4.3 Building a Full-Cycle Tiered Employment Assistance System to Improve Employment Quality

The short-term assistance model during the graduation season is changed, and a full-process cultivation closed loop of digital-intelligent farming-reading education and employment assistance is created.

Lower-grade students rely on farming-reading field classrooms and professional cognition courses to carry out industry cognition education, enabling students to understand the working environment and job requirements of landscape construction and digital landscape positions and establish correct labor and employment views.

5. Conclusion

Under the background of the digital transformation of the landscape architecture industry, digital-intelligent farming-reading education provides a new paradigm for the talent cultivation reform of the higher vocational landscape engineering technology major. The School of Landscape Architecture and Art explores the integration of digital-intelligent technology with farming-reading education, connects talent cultivation, skills refinement, and employment assistance, and through the creation of virtual-real integrated fields, the reshaping of positions-courses-competitions-certificates curricula, the cultivation of tiered skills competitions, full-process tiered employment assistance, and the improvement of a multi-evaluation system, continuously cultivates landscape technical talents with labor literacy, digital capabilities, and engineering practical abilities, promoting the improvement of employment quality and the increase of employment quantity for landscape architecture graduates, and providing talent support for the construction of Beautiful Jiangsu and harmonious rural areas.

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