

Research on Three-dimensional Three-stage Design of Middle School Students' Labor Education Study Course under the Perspective of Five Educations Integration

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Abstract: Within the framework of the Five-Education Integration, this study focuses on junior high school students by leveraging regional educational resources and labor education contexts. It systematically analyzes students' cognitive characteristics, labor experiences, and value orientations, thereby constructing a "Three-Dimensional, Three-Stage" labor education research model. The model is structured around three dimensions—human-nature, human-society, and human-self—developing a progressive "cognition-practice-creation" task chain. Centered on authentic labor scenarios, the curriculum integrates labor spirit, skills, and moral-intellectual-physical-esthetic education. Through research task sheets, reflective journals, and achievement displays, it forms a closed-loop system to enhance students' labor literacy. This approach facilitates the transition from Five-Education Integration to holistic development, providing replicable practical models for labor education implementation in the new era of basic education.

Keywords: integration of five educations, labor education, study-travel curriculum, three-dimensional and three-stage design, middle school students

1. Introduction

Students are both the starting point and ultimate goal of education, with their experiential frameworks and value orientations determining the depth and effectiveness of labor education research-based curricula. Contemporary middle school students, having grown up in a digital media environment where information is readily accessible, generally lack authentic labor experiences. While their self-awareness is rapidly developing and they are eager to explore social roles, their understanding of labor's value remains superficial. Learning situation analysis must simultaneously address knowledge foundations, emotional attitudes, and social needs to provide factual basis for curriculum design.

In 2020, the "Opinions of the CPC Central Committee and the State Council on Comprehensively Strengthening Labor Education in Primary, Secondary, and Higher Education in the New Era" and its supporting guidelines were issued, integrating labor education into the entire talent development process. The policy emphasizes leveraging natural, cultural, and technological resources to establish a collaborative school-community framework with regional coordination for research-based learning practices. This policy shift provides institutional support for secondary school labor education to transcend campus boundaries and engage with the real world. It also requires curriculum developers to base their work on regional resources, address students' developmental needs, and redesign learning pathways.

The "Three-Dimensional, Three-Stage" research-based curriculum is designed with three core dimensions:

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human-nature, human-society, and human-self. It organizes three types of tasks—agricultural experience, handicraft creation, and social service—through the cognitive-practical-creative progression. By integrating labor spirit with moral, intellectual, physical, and aesthetic education, the curriculum forms a closed loop through task sheets, reflective journals, and achievement displays. This approach achieves the integration of the five educations (moral, intellectual, physical, aesthetic, and labor) and provides a replicable and scalable model for labor education in modern secondary schools.

2. Overall Design of the Teaching Process

2.1 The Policy Origin and Experience Basis of the "Three-dimensional and Three-stage" Labor Study Series

Guided by the 2020 "Opinions of the CPC Central Committee and the State Council on Comprehensively Strengthening Labor Education in Primary, Secondary, and Higher Education in the New Era" and the Ministry of Education's "Guidelines for Labor Education in Primary, Secondary, and Higher Education (Trial)", this course directly addresses the four core competencies: "labor values, labor skills, labor habits and qualities, and labor spirit" [1]. It transforms local natural, cultural, and social environments into continuous learning scenarios, constructing a three-dimensional task matrix of "human-nature, human-society, and human-self". The matrix follows a three-stage progression: "cognition-practice-creation" —starting with observation and research, progressing to hands-on practice, and culminating in value elevation through public exhibitions or community service. The tasks evolve from simple to complex, from single to integrated, forming a spiraling, structured sequence.

The research team conducted field surveys at selected study bases, community service centers, and intangible cultural heritage workshops, followed by semi-structured interviews with teachers and mentors. Their findings revealed three key expectations for middle school students' labor literacy: the ability to perform real-world production tasks, the capacity to uphold responsibility and integrity in collaborative work, and the capability to demonstrate innovative thinking in problem-solving. Based on these insights, the curriculum redesigned the labor task chain by integrating authentic labor scenarios—such as crop cultivation, handicrafts, and public services—with the four core competencies of moral, intellectual, physical, and aesthetic education. This approach ensures that every learning phase and study trip aligns with these core competencies, achieving comprehensive integration of the five educational dimensions during secondary education.

Taking the "Four Seasons of a Field" agricultural research project as an example, this integrated three-dimensional learning objective combines human-nature and human-society dimensions with self-development. In the human-nature dimension, participants complete the full rice cultivation cycle from sowing to harvesting, experiencing the tangible value of labor through yield measurement and weighing. The human-society dimension involves collaborating with farmers on seasonal tasks, negotiating irrigation schedules and crop rotation plans to understand rural cooperative traditions and public responsibility. The human-self dimension cultivates focus and perseverance through field journals and hand-drawn solar term diagrams, reflecting on the rhythm between human bodies and nature. Following a three-stage progression: the cognitive stage achieves rice, soil, and timing knowledge through classroom micro-observations and farmer oral histories; the practical stage involves field cultivation and maintenance to master plowing, transplanting, and harvesting; the creative stage showcases labor achievements through "Little Harvest Festivals" featuring straw weaving and handmade rice soap, enabling shared appreciation of labor value.

The task chain is closely linked to the "four core competencies" of the national outline, allowing the concepts, abilities, and character of labor to be developed sequentially in real farming scenarios, providing a practical model for the integration of the five educations in secondary schools.

2.2 The Portrait of Junior High School Students' Learning Situation Based on Empirical Evidence

2.2.1 Survey tools and reliability

Based on the four-dimensional framework of "labor awareness, labor knowledge, labor skills, and labor emotions" outlined in China's "Guidelines for Labor Education Evaluation," and the five dimensions of labor experience, cooperative

awareness, innovative tendency, value recognition, and parental support [2], this study constructs a questionnaire for investigation. The paper conducts reliability testing on the content of the student learning situation analysis questionnaire and provides an in-depth analysis of the Cronbach's α coefficients for each dimension[3].

Table 1: Content Reliability Test of the Student Learning Situation Questionnaire

| Ask to categorize | Questionnaire item number | Cronbach's α coefficient |
|---------------------------|---------------------------|---------------------------------|
| Work experience | 3、4、5、6、7 | 0.859 |
| cooperative consciousness | 8、9、10、11、12 | 0.910 |
| innovation tendency | 1、2、13、14、15 | 0.901 |
| identity of value | 16、17、18、19 | 0.732 |
| Parental Support | 20、21、22、23 | 0.877 |

Generally, Cronbach's α coefficients above 0.7 are considered acceptable, while values above 0.8 indicate high reliability of the scale. Therefore, the data from this questionnaire survey is credible.

2.2.2 Results of the questionnaire survey

Labor Experience: 64.7% of respondents do housework less than three times monthly, primarily involving dishwashing and bed-making, with no sustained productive labor. Only 11.4% have engaged in planting or handicrafts. Cooperative Awareness: 78.3% are willing to collaborate, while 54.6% resort to "waiting for others to resolve" when division of labor conflicts arise, indicating a lack of strategies requiring hands-on practice. Innovation Tendency: Interested but lacking confidence and success experience. Value Recognition: 93.4% endorse "labor as the most glorious," though only 68.7% consider it relevant to themselves, reflecting both idealization and depersonalization. Parental Support: 82.5% approve of study tours, while 73.2% express safety concerns and 46.8% academic worries. The curriculum should integrate subjects and clearly outline safety protocols, requiring coordinated efforts from families, schools, and communities to address these concerns[4].

2.3 Multiple interactive evaluation:levering teaching difficulties

2.3.1 Re-focusing on the key and difficult points

To address the current situation of "willingness to work—lack of action—inability to execute," the evaluation process is embedded throughout the "three-dimensional, three-stage" framework. The focus lies in cultivating "labor habits and qualities," while the challenges stem from "spiritual internalization" and "manifestation of innovation." Taking "The Four Seasons of a Field" as an example, the assessment evaluates whether students can accurately record seasonal changes in their diaries, propose and validate improvement plans in management, and clearly narrate labor stories during harvest festivals[5]. By replacing subjective impressions with observable behaviors, this approach resolves the dilemma of "difficulty in quantifying spiritual values."

2.3.2 Interaction among multiple entities

Students maintain daily labor journals and conduct self-evaluations using developmental milestones charts[6]. Peer evaluations are conducted through a relay system. Teachers and base mentors jointly develop performance rubrics with real-time feedback. Parents participate in growth trajectory assessments to strengthen home-school collaboration. All materials are compiled into digital portfolios that serve both excellence evaluations and curriculum improvement.

2.4 Integration Mode of "Study-Research-Evaluation" in Regional Coordination

Through regional study bases, intangible cultural heritage workshops, and family farms, the program integrates national labor education guidelines, curriculum standards, and local cultural resources into a cohesive framework[7]. This creates a self-sustaining cycle of "learning, researching, and evaluating": students enter with task sheets, receive real-time

scoring from mentors, and their progress is instantly recorded on the platform. Schools, bases, and communities share standardized evaluation criteria to ensure comprehensive documentation and regional collaboration^[8]. By showcasing the growth stories of rural artisans, museum guides, and agricultural technicians, the program highlights local role models to foster perseverance and innovation, while promoting the integration of moral, intellectual, physical, aesthetic, and labor education through authentic work experiences.

3. The Process of Teaching Implementation

3.1 Pre-class: Task-driven—Experience Activation

Guided by the National Labor Education Outline, teachers design three types of study modules: solar term rice cultivation, intangible cultural heritage crafts, and community service. These are distributed a week in advance: 1) Observation Logs (Cognitive) – Students conduct preliminary research at home or school, photographing and documenting their findings before uploading them to the class group; 2) Safety Commitment Forms – Parents sign to address safety concerns^[9]. After collection, teachers promptly categorize the materials, identify knowledge gaps, and adjust the focus of the learning environment.

3.2 In class: Situational Experience—Reflection and Generation

Upon arrival at the base, students follow a three-phase card-based process: cognition, practice, and creation.

Cognition: The tutor demonstrates on-site and poses phenomenon-based questions, while students complete a "comparison record".

Practice: Assign responsibilities to groups for fields, handicraft stations, or service positions, with teachers and base instructors conducting synchronized patrols to provide real-time corrections.

Creation: Within 5 minutes, each group spontaneously presents one improvement method, followed by peer verbal feedback. The teacher then scores on-site using performance criteria while reinforcing key labor spirit concepts.

3.3 After class: Achievement Transfer—Value Sublimation

Upon returning to school, students must submit written summaries of subject knowledge connections, hand-drawn flowcharts of labor skill essentials, and parent feedback forms for extended home assignments^[10]. The class will host a showcase of labor achievements, inviting community and parent representatives to vote for the 'Best Creativity Award' and 'Most Artisanal Award.' Outstanding entries will be featured on the school's official WeChat account, enabling the public sharing of evaluation results.

3.4 Resource Guarantee: Regional Coordination—Dynamic Update

The curriculum integrates real-world resources such as regional study bases, intangible cultural heritage workshops, and agricultural demonstration stations, with content updated annually according to seasonal changes and folk traditions. It also features modular study guides to ensure that task sheets and evaluation forms can be easily replaced and supplemented, keeping teaching materials fresh and relevant. This approach effectively supports the integration of the five educational dimensions (moral, intellectual, physical, aesthetic, and labor education) in secondary education^[11].

4. teaching efficiency

(1) Increased motivation. Under the task-driven approach, the class's labor participation rate rose from 79% to 96%, and monthly household chores check-ins increased by 2.3 times. Students generally expressed willingness and enthusiasm to participate.

(2) Enhanced learning capacity. The average word count of study logs increased from 120 to 268, with 70% of groups able to present output and costs through charts. During roadshows, participants demonstrated clearer expression, with simultaneous improvements in information processing and oral confidence.

(3) Integration of the Five Educations (moral, intellectual, physical, aesthetic, and labor education) has become evident. In moral education, classroom discipline scores improved by 9.4 points after shift rotations. For intellectual education, the pass rate in related subjects increased by 11-15 percentage points. In physical education, 92% of students met heart rate standards during one-hour fieldwork^[12]. Aesthetic education saw straw craft products win awards, while labor education achieved 18% higher per-acre yields in assigned plots compared to the previous year. With parental

satisfaction at 94.1%, the school's research-based curriculum has gained full recognition, and initial social acceptance is taking shape.

5. Features and Innovations

5.1 Three-dimensional Reconstruction of Curriculum Resources

Based on the framework of "human-nature-society-self", this study systematically organizes three types of local materials: solar terms and agricultural activities, intangible cultural heritage skills, and community public welfare. It establishes an integrated resource package of "task-situation-evaluation" to achieve the localization of the national outline^[13].

5.2 Teaching Team "Three Teachers Synergy"

Subject teachers design objectives and evaluations, while base mentors demonstrate skills and community artisans contribute cultural narratives. Through collaborative research and teaching among the three parties, a joint teaching-research system of 'university + base + community' is established to ensure continuous curriculum updates and in-depth implementation.

5.3 The Evaluation Method of "Three Single Linkage"

The task sheet, observation sheet and reflection sheet are recycled, and the process evidence is embedded in the students' electronic "labor files", which not only serves the comprehensive quality evaluation in school, but also provides data for the regional research quality monitoring, and realizes the consistency of teaching, learning and evaluation^[14].

5.4 Value Leading "Spirit Endogenous"

By integrating the stories of model workers, oral accounts from local virtuous figures, and intangible cultural heritage into labor activities, we evoke emotional resonance through authentic individuals and events. This approach motivates students to internalize the principle that 'labor is the most glorious' as a driving force for personal growth, thereby advancing the integration of the five educations from parallel development to symbiotic coexistence^[15].

6. Reflection and Improvement

6.1 Reflection

(1) Weak theoretical foundation: Current study tours emphasize hands-on activities while neglecting to explain the scientific principles, historical context, and economic value behind labor. Students can perform tasks but lack understanding of the underlying causes, making it difficult to apply their knowledge in real-world contexts.

(2) Insufficient value extension: activities stop immediately after completion, labor and self-growth are not connected, the participation rate drops significantly, and the phenomenon of "experience fever, reflection cold" appears.

(3) The faculty structure is monotonous: subject teachers lack farming experience, their guidance often remains at the level of safety reminders, unable to explain technical details, and thus unable to meet students' needs for in-depth exploration.

6.2 Improvement

(1) Integration of Theory and Practice: Each task begins with a 5-minute "Background Station" that links solar terms, agricultural history, and cost accounting. It concludes with a 3-minute "One-Sentence Principle" summary to reinforce understanding, helping learners grasp both the "what" and the "why".

(2) Value Extension: Design a "Labor Passport" where students record their task outcomes, self-evaluations, and peer comments. During the final class meeting, they share their "most fulfilling labor experience," using peer recognition to reinforce intrinsic motivation. Additionally, labor performance is incorporated into comprehensive quality evaluations and linked to excellence awards, ensuring continuity.

(3) Faculty Collaboration: Invite agricultural technicians, intangible cultural heritage inheritors, and history teachers to form a mentor team to enhance practical guidance. Establish a master-apprentice on-the-job training system where subject teachers participate in the entire process from sowing to harvesting, using field research to enrich classroom teaching, thereby achieving simultaneous improvement in professional skills and labor education.

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