

Development of Learning Activity Packages Implementing Cooperative Learning with Think-Pair-Share to Cultivate Cultural Awareness among Vocational College Students

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Abstract

Against the backdrop of global cultural integration and the national strategy of cultural confidence, vocational education shoulders the dual mission of cultivating skilled craftsmen and enhancing students' comprehensive cultural literacy. For fashion and accessories design majors, insufficient cultural awareness has become a prominent bottleneck restricting students' creative ability and international design competitiveness. This study aims to develop a set of standardized Learning Activity Packages (LAP) integrated with cooperative learning and the Think-Pair-Share interactive model, verify its teaching effectiveness in cultivating vocational college students' cultural awareness, and analyze students' learning satisfaction and internal improvement rules of cultural literacy. A one-group pretest-posttest quasi-experimental design was adopted. Thirty sophomore students majoring in Fashion and Accessories Design from Quanzhou College of Technology were selected as research samples to receive an 8-week, 16-class-hour instructional intervention with four core LAP units. Data were processed with descriptive statistics, paired-samples t-test, reliability test and thematic qualitative coding for open-ended feedback. Key findings include: (1) The developed LAP fully meets the 80/80 teaching efficiency standard with a task completion rate of 100% and learning goal attainment rate of 93.33%; (2) The integrated teaching model extremely significantly improves students' cultural cognitive academic achievement with Cohen's $d=1.70$; (3) Students' comprehensive cultural awareness level achieved statistically significant overall progress with Cohen's $d=1.69$; (4) Students reported extremely high overall recognition of the teaching mode with an overall satisfaction score of 4.31 on a 5-point Likert scale. This study concludes that the trinity integrated teaching carrier and interactive mechanism constructed in this research can comprehensively boost fashion design majors' cultural cognition, cross-cultural sensitivity and cultural innovation confidence, and gain full student recognition.

Keywords: Higher vocational colleges; Fashion and accessories design; Cultural awareness; Cooperative learning; Think-Pair-Share; Learning Activity Package

1. Background and Significance of the Problem

In the era of Globalization 4.0, the dual wave of industrial transformation and cultural integration is reshaping the value orientation and development path of vocational education. As China transitions from being a "manufacturing giant" to a "manufacturing powerhouse," vocational education is entrusted with a new historical mission—not only to cultivate technically skilled artisans but also to nurture innovative talents with cultural confidence and intercultural competence. This transformation

is particularly urgent in the field of cultural and creative industries, among which the fashion and accessories design program carries the unique responsibility of inheriting and innovating excellent traditional Chinese culture and enhancing the nation's cultural soft power. The quality of talent cultivation in this field directly affects China's cultural discourse and influence in the international fashion arena.

Currently, vocational education in China is undergoing a strategic shift from "scale expansion" to "quality improvement." The Implementation Plan for the Reform of Vocational Education explicitly emphasizes the goal of "cultivating high-quality workers and skilled technical personnel," while the Action Plan for Improving the Quality of Vocational Education further calls for "comprehensive enhancement of students' humanistic literacy." These policy directions reflect a profound transformation in vocational education's talent development paradigm—from single-skill training to comprehensive quality cultivation, embodying the educational philosophy of "moral and skill-based education" (Sun, 2019).

Cultural awareness, as an essential component of students' core competencies, refers to an individual's ability to recognize, understand, respect, and adapt to cultural differences (Byram, 1997). For students majoring in fashion and accessories design, strong cultural awareness holds particular significance: it serves both as a source of creative inspiration and an aesthetic foundation, and as a key competence in their future careers for enabling cultural empowerment of products, engaging in dialogue with international fashion trends, and telling the Chinese story well (Zhao, 2021).

However, there remains a significant gap between policy vision and teaching practice. According to the 2022 China Apparel Industry Talent White Paper, more than 70% of surveyed enterprises believe that graduates from higher vocational institutions exhibit obvious shortcomings in soft skills such as cultural understanding, creative transformation, and intercultural communication. A case study of the Fashion and Accessories Design program at Quanzhou College of Technology reveals common issues among students: fragmented acquisition of cultural knowledge, superficial understanding of cultural elements, and rigid application of traditional cultural symbols in design practices without innovative transformation.

The root of these problems lies in systemic deficiencies in current cultural awareness cultivation: first, in terms of teaching philosophy, there remains a tendency to prioritize technical skills over humanities, with cultural courses marginalized within the curriculum (Jiang, 2018); second, in teaching methods, teacher-centered lecturing dominates, lacking interactivity and experiential learning, causing students to remain at the level of rote memorization without internalizing real cultural understanding (Wu, 2020); third, in teaching resources, there is a lack of systematic, practical, and integrative teaching materials that can organically combine cultural learning with professional skill development.

To address these challenges, this study introduces an integrated application of cooperative learning and Think-Pair-Share model through the development of Learning Activity Packages (LAPs), aiming to embed cultural awareness cultivation into professional teaching. Cooperative learning, with its elements such as positive interdependence and individual accountability within heterogeneous groups (Johnson & Johnson, 2014), can effectively improve students' academic performance and social skills (Slavin, 2011); the Think-Pair-Share model, with its structured process of "individual thinking → paired discussion → group sharing" (Lyman, 1981), ensures student participation and encourages deep

thinking; the LAP, which integrates learning objectives, activity content, and assessment tools (Martin, 1983), offers structured support for teaching.

2. Research Objectives

2.1 To develop the learning activity packages implementing cooperative learning with think-pair-share to cultivate cultural awareness, achieving an 80/80 effectiveness criterion.

2.2 To compare the achievement of cultural awareness cultivation before and after using the learning activity packages implementing cooperative learning with think-pair-share to cultivate cultural awareness for vocational college students.

2.3 To compare cultural awareness before and after using the learning activity package using the learning activity packages implementing cooperative learning with think-pair-share to cultivate cultural awareness for vocational college students.

2.4 To study satisfaction with learning management using the learning activity package implementing cooperative learning with think-pair-share to cultivate cultural awareness for vocational college students.

3. Research Hypotheses

3.1 The learning activity package implementing cooperative learning with the Think-Pair-Share model will achieve the efficiency criterion of 80/80.

3.2 Students' achievement in cultural awareness after participating in the learning activities will be significantly higher than their achievement prior to the use of the learning activity package.

3.3 Students' cultural awareness levels after participating in the learning activities will be significantly higher than their levels prior to the use of the learning activity package.

3.4 Students will exhibit a high level of satisfaction with the learning management utilizing the learning activity package implementing cooperative learning with the Think-Pair-Share model.

4. Scope of the Research

This research focuses on the development and validation of Learning Activity Packages integrating cooperative learning and Think-Pair-Share for cultural awareness cultivation among vocational college students. The conceptual framework guides the research with independent variable being the learning activity package and dependent variables being cultural cognitive academic achievement, cultural awareness level, and learning management satisfaction. The population consists of all second-year students majoring in Fashion and Accessories Design at Quanzhou College of Technology, totaling four classes with 120 students. Using cluster sampling, one natural class with approximately 30 students were randomly selected as research participants. The study was conducted during the second semester of the 2024–2025 academic year, with an 8-week instructional intervention totaling 16 class hours.

5. Research Methodology

This study adopts a one-group pretest-posttest quasi-experimental design. The design model is $O_1 \times O_2$, where O_1 represents the pretest conducted before the experimental treatment, including the academic achievement test and the cultural awareness scale; X represents the experimental

treatment, which is an 8-week instructional intervention using the learning activity package integrating cooperative learning and the Think-Pair-Share model; O₂ represents the posttest conducted after the intervention, including the academic achievement test, the cultural awareness scale, and the learning management satisfaction questionnaire. Due to the constraints of real classroom settings, it is difficult to randomly assign participants into experimental and control groups. To minimize threats to internal validity such as history, maturation, and testing effects, the study implements control strategies including time control with the intervention completed within a relatively short and concentrated period, test validity with pretest and posttest using different but equivalent items, and standardized intervention with teaching procedures carefully documented to ensure consistency.

6. Research Instruments

To achieve the research objectives, this study employs four instruments. The Learning Activity Package integrating Cooperative Learning and Think-Pair-Share for Cultural Awareness Cultivation consists of four core units: "Chinese Traditional Costume Patterns and Cultural Meanings," "Cultural Trends in Western Fashion History," "Cultural Values behind Sustainable Fashion," and "Design Communication in an Intercultural Context." Each unit includes a teacher's guide, student worksheets, cultural case materials, guiding questions, pair discussion prompts, presentation templates, and both formative and summative assessment rubrics. The Pretest and Posttest on Academic Achievement in Cultural Awareness is a self-developed written test covering various cognitive levels such as recall, comprehension, application, and analysis of cultural knowledge with question types including multiple-choice, short answer, and case analysis questions. The Vocational College Students' Cultural Awareness Scale comprises 18 items rated on a 5-point Likert scale covering six dimensions: Cultural Value Recognition, Cultural Integration Thinking, Intercultural Sensitivity and Respect, Critical Cultural Reflection, Confidence in Cultural Innovation and Application, and Attitude and Participation in Cultural Learning. The Learning Management Satisfaction Questionnaire collects students' subjective satisfaction regarding LAP teaching content, activity organization, collaborative experience, learning outcomes, and teacher support using a 5-point Likert scale with open-ended questions for qualitative feedback.

7. Data Collection

The experimental process was divided into three stages. During the Pretest Stage in Week 5, a baseline assessment was conducted for all 30 participants including the academic achievement pretest and cultural awareness scale pretest. During the Instructional Intervention Stage from Weeks 6 to 13, an 8-week intervention was conducted using the LAP with 2 class hours per week totaling 16 hours, with one LAP unit completed every two weeks while formative data was collected through classroom observation records, analysis of student work and participation, and weekly teaching reflections. During the Posttest Stage in Week 14, participants completed the academic achievement posttest, cultural awareness scale posttest, and student satisfaction questionnaire. Throughout the data collection process, emphasis was placed on data integrity and accuracy with all assessments administered within specified timeframes.

8. Data Analysis

The data analysis process comprised three main steps. Data Organization and Coding involved systematically organizing and coding all collected data according to research variables. Quantitative Statistical Analysis employed descriptive statistics to summarize means, standard deviations, and basic demographic data; paired sample t-tests to compare students' academic achievement and cultural awareness levels before and after the intervention; and frequency distribution and mean analysis of satisfaction survey responses. Qualitative Data Analysis applied thematic coding to extract key patterns in students' subjective experiences, perceptions of the intervention, and suggestions for improvement from open-ended questionnaire responses and classroom observation notes.

9. Research Summary

The learning activity package developed in this study demonstrates scientific validity, effectiveness, and operability, fully meeting the 80/80 efficiency criterion. The task completion rate reached 100%, and the learning effectiveness attainment rate reached 93.33%, confirming that the LAP can effectively support the implementation of cultural awareness cultivation teaching with a complete content system, high professional compatibility, clear interactive process, and perfect assessment tools.

The integrated model of cooperative learning and Think-Pair-Share significantly improves students' cultural cognitive academic achievement. After the intervention, the pretest mean score was 76.56, and the posttest mean score was 86.12, with the paired-samples t-test result $p < 0.001$ indicating an extremely significant difference and Cohen's $d = 1.70$ representing a large effect size. Among three cognitive dimensions, cultural innovation and application capacity obtained the most prominent growth of 16.68%, followed by cultural understanding at 14.08% and cultural knowledge at 9.41%.

The integrated model comprehensively and significantly improves students' cultural awareness level. After the intervention, the total posttest score of 74.21 was 12.74 points higher than the pretest score of 61.47, with Cohen's $d = 1.69$ representing a large effect size. All six dimensions were remarkably elevated, with confidence in cultural innovation and application seeing the maximum increase of 27.60%, followed by critical cultural reflection at 23.16%, intercultural sensitivity and respect at 20.77%, cultural integration thinking at 20.69%, attitude and participation in cultural learning at 17.50%, and cultural value recognition at 16.00%.

Students reported extremely high overall recognition of the teaching mode. The total average satisfaction score stood at 4.31 on a 5-point Likert scale, with 93.33% of participants choosing satisfied or very satisfied. Learning effectiveness obtained the highest rating at 4.41, while all dimension scores stayed above 4.2 without negative feedback. The cooperative learning dimension scored 4.34, teacher support scored 4.32, overall evaluation scored 4.30, activity design scored 4.26, and course content scored 4.21. Qualitative reflection data showed that the LAP + Cooperative Learning + Think-Pair-Share framework transformed students from passive knowledge receivers to active collaborative designers.

10. Discussion

The results of this study align with and extend existing research in several significant ways. The finding that the LAP meets the 80/80 efficiency criterion confirms the theoretical foundations of mastery learning theory (Bloom, 1968), constructivist learning theory (Vygotsky, 1978), and cooperative learning theory (Johnson & Johnson, 2014). The LAP strictly follows the five design principles of differentiation,

scaffolding, integration, practicality, and interest, transforming abstract cultural knowledge into specific tasks highly compatible with the Fashion and Accessories Design major. This breaks through the dilemma of "theoretical, fragmented, and disconnected from majors" in traditional cultural teaching identified by Jiang (2018) and Wu (2020). The Think-Pair-Share model embedded in the LAP draws upon social constructivism by operationalizing the Zone of Proximal Development, interactionist theories by providing sufficient opportunities for social interaction, and cognitive elaboration theory by requiring students to organize and explain their ideas to others.

The significant improvement in cultural cognitive academic achievement with a large effect size ($d=1.70$) verifies the synergistic effect of cooperative learning and the Think-Pair-Share model. The "individual thinking—paired discussion—whole-class sharing" process of Think-Pair-Share ensures every student completes in-depth thinking, avoiding the classroom dilemma of "domination by a few and silence by most" (Lyman, 1981; Meriç, 2014). The heterogeneous grouping, positive interdependence, and individual accountability mechanisms of cooperative learning enable students of different foundations to help each other and improve together (Johnson & Johnson, 2014; Slavin, 2011). The particularly prominent improvement in cultural innovation and application (16.68%) confirms that this teaching model successfully promotes development from knowledge memorization to higher-order cognitive abilities.

The comprehensive improvement in cultural awareness level with a large effect size ($d=1.69$) reflects that the cultivation of cultural awareness by this teaching model goes deep into emotional attitude, value recognition, innovation ability, and reflection ability dimensions. The intervention design corresponds to the six core elements of cultural awareness: Cultural Value Recognition through learning Chinese traditional costume culture; Cultural Integration Thinking through comparison of Chinese and Western fashion culture; Intercultural Sensitivity and Respect through intercultural design communication tasks; Critical Cultural Reflection through case analysis of cultural appropriation and cultural respect; Confidence in Cultural Innovation and Application through design practice tasks; and Attitude and Participation in Cultural Learning through interactive and practical learning. These findings align with Byram (1997) and Deardorff's (2006) conceptualization of cultural awareness as requiring a contextual, interactive, and practical teaching environment.

The high student satisfaction (4.31 overall, 93.33% satisfied or very satisfied) confirms that this teaching model meets students' core needs from four levels: practicality and interest of learning tasks, safety and inclusiveness of interactive process, autonomy and controllability of learning process, and visibility and sense of achievement of learning effectiveness. Compared with the current situation of "students tired of learning, low participation, and poor satisfaction" in traditional cultural classrooms (He, 2018), this teaching model completely changes students' stereotype of cultural courses by reconstructing learning content, methods, and environment.

11. Suggestions/Recommendations

Based on the research findings, several recommendations emerge for vocational education practice. Vocational colleges should promote the deep integration of cultural education and professional education by integrating excellent traditional Chinese culture, industry culture, and cross-cultural culture into professional talent training programs. A standardized and replicable teaching resource system should be constructed through the development of complete teaching resources such

as learning activity packages, task sheets, case libraries, and assessment rubrics. A diversified and process-based assessment system should be established that incorporates classroom participation, group cooperation, practical works, cultural reflection, and innovative application into assessment. Teachers should promote the structured interactive model of cooperative learning and Think-Pair-Share to replace traditional one-way teaching, enabling every student to participate deeply in class. Student-centered, task-driven, and practice-oriented design should be adhered to, with real tasks combined with majors.

For future research, the sample scope should be expanded to include multiple vocational colleges, multiple majors, and large samples to verify the universality of the teaching model. Experimental design should be optimized by adopting a true experimental design with experimental and control groups to enhance causal inference ability. Long-term follow-up and transfer research should be carried out to investigate the long-term retention effect of cultural cognition and cultural awareness. The regulatory effect of individual differences such as learning styles, professional foundations, cultural foundations, gender, and personality should be explored.

12. References

- Barkley, E. F., Cross, K. P., and Major, C. H. (2014). Collaborative learning techniques: A handbook for college faculty (2nd ed.). Jossey-Bass.
- Bennett, M. J. (1993). Towards ethnorelativism: *A developmental model of intercultural sensitivity*. In R. M. Paige (Ed.), *Education for the intercultural experience*. Intercultural Press.
- Bloom, B. S. (1968). Learning for mastery. *Evaluation Comment*, 1(2), 1–12.
- Byram, M. (1997). Teaching and assessing intercultural communicative competence. *Multilingual Matters*.
- Chen, G. M., and Starosta, W. J. (2000). The development and validation of the intercultural sensitivity scale. *Human Communication*, 3(1), 1–15.
- Deardorff, D. K. (2006). Identification and assessment of intercultural competence as a student outcome of internationalization. *Journal of Studies in International Education*, 10(3), 241–266.
- He, X. X. (2018). Dilemmas and solutions in the humanities education of higher vocational colleges. *Vocational and Technical Education*, 39(10), 56–60.
- Jiang, D. Y. (2018). Research on the construction of a modern vocational education system. Higher Education Press.
- Johnson, D. W., and Johnson, R. T. (2014). *Joining together: Group theory and group skills* (11th ed.). Pearson.
- Kagan, S. (1994). Cooperative learning. Kagan Cooperative Learning.
- Lyman, F. T. (1981). The responsive classroom discussion: The inclusion of all students. In A. S. Anderson (Ed.), *Mainstreaming digest*. University of Maryland Press.
- Martin, J. (1983). *Mastering instruction*. Addison-Wesley.
- Meriç, G. (2014). The effect of think-pair-share technique on the achievement, attitude and retention of students in science teaching. *Journal of Educational and Instructional Studies in the World*, 4(3), 1–8.
- Slavin, R. E. (2011). Instruction based on cooperative learning. In R. E. Mayer & P. A. Alexander (Eds.), *Handbook of research on learning and instruction*. Routledge.

- Sun, S. X. (2019). The functional orientation and value pursuit of vocational education in the new era. *Educational Research*, 5, 102–110.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Wu, X. P. (2020). *Research on quality evaluation in vocational education*. Zhejiang University Press.
- Zhao, M. (2021). Research on cultivating cultural literacy among vocational college students from the perspective of cultural confidence. *Chinese Vocational and Technical Education*, 15, 68–72.

