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Enhancing University Students' Performance Tests, Motivational Strategies for Learning, and Social Skills through Cooperative Learning: A Study on Chinese Traditional Culture Education in China

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Quantitative Study

Abstract

Background: Cooperative learning provides an opportunity for the development and improvement of social skills by emphasizing the importance of social interaction in fostering both academic and social intelligence. This study examined the application of cooperative learning in teaching traditional Chinese culture at Chinese universities using a mixed methods approach.

Methods: This study adopted a mixed methods approach inclusive quantitative phase involved a true experimental design with pre- and post-tests with control group. The study focused on Chinese university students, and a cluster sampling approach was utilized to select 60 participants. Quantitative assessments were conducted using performance tests, the Motivated Strategies for Learning Questionnaire (MSLQ) by Paul Pintrich, and the Social Skills Inventory (SSI) by Riggio, while qualitative insights were gathered through post-experiment interviews with 10 participants. The qualitative data in this study were collated and analyzed using NVivo, integrating interviews, group discussions, questionnaires, and more. Quantitative data were analyzed by mixed analysis of variance (ANOVA) method. Data were analyzed with SPSS software.

Results: Mixed analysis revealed that main effect of time in performance score was found to be statistically significant [$F(1) = 19.25$, $P < 0.001$]. This indicates a significant change in scores from the pre-test to the post-test across both groups. Additionally, the main effect of the group was also found to be significant [$F(1) = 5.81$, $P = 0.019$], suggesting a notable difference in scores between the control and experimental groups. Regarding motivation, it is evident that the main effect of time had a significant impact [$F(1) = 59.60$, $P < 0.001$], signifying a substantial change in motivation levels from pre-test to post-test across both groups. In social skills, it is evident that the main effect of time had a significant impact [$F(1) = 25.67$, $P < 0.001$], indicating a considerable change in skill levels from pre-test to

post-test across both groups.
Conclusion: These findings underscore the potential of cooperative learning to mobilize students' enthusiasm for learning and enhance their independent learning ability, cooperative participation, and competitive consciousness, thus effectively improving the teaching quality of Chinese traditional culture in universities.
Keywords: Chinese traditional culture; Cooperative; Learning; Performance tests; Motivational strategies for learning; Social skills

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Introduction

In recent years, the application of the cooperative learning mode in traditional culture teaching has shown promising results. Several studies have explored its implementation in activities such as Confucian classics reading and discussing, leading to positive teaching effects (Cai, 2017; Liu, 2016). By participating in small cooperative groups, students become more actively engaged in the reading and discussion of Confucian classics. This collaborative learning approach has proven to be effective in stimulating students' interest in traditional culture and fostering a deeper internalization of its values (Zhong & Qiu, 2018). Cooperative learning is an instructional strategy wherein students work together in small groups to achieve common goals and complete shared tasks (Johnson & Johnson, 1999). It is further assumed that active participation in the learning experience will result in an improvement in academic performance (Alijani Tori et al., 2021). Unlike individual or competitive learning, this approach encourages students to collaborate, maximizing their own and their peers' learning outcomes (Slavin, 2011). Two essential features define cooperative learning: positive interdependence and individual accountability. Positive interdependence entails students recognizing the need for each other's contributions to accomplish group tasks. Meanwhile, individual accountability ensures that each student is responsible for their learning and active participation in group work (Kagan & Kagan, 1994). This approach is theoretically reveal that cooperative learning is absorbed in the mainstream of educational practice because it is a theoretically-based approach that has been verified to be highly effective in improving student learning and enhancing social relations compared to cooperative methods (Eskandari et al., 2021).

Numerous studies have demonstrated the substantial benefits of cooperative learning over competitive or individualistic approaches. A meta-analysis of over 300 studies revealed that cooperative learning consistently yielded significantly greater effects on student learning across various subject areas and age groups compared to control groups (Marzano et al., 2001). Students engaged in cooperative learning activities have been observed to outperform their peers in traditional classes in areas such as recall, comprehension, higher-level reasoning, and meta-cognition (Ashman & Gillies, 2003).

In addition to yielding improved learning outcomes, cooperative learning also plays a crucial role in promoting students' psychological well-being and social skills. The study of social skills, like many other skills, including academic skills, is essential (Malekzadeh et al., 2020).

Research has consistently shown that students engaged in cooperative learning environments demonstrate higher levels of motivation, engagement, self-confidence, empathy, and prosocial behaviors compared to those in control conditions (Li & Lam, 2013; Roseth et al., 2008; Van Ryzin et al., 2009). Furthermore, cooperative learning has been found to reduce disruptive behaviors, aggression, and instances of bullying in educational settings (Johnson et al., 2000). The principles of cooperative learning align seamlessly with modern perspectives on learning and education. It harmonizes with social constructivist views, which emphasize students' active participation in constructing their understanding through meaningful social interactions (Kalina & Powell, 2009). Moreover, cooperative learning aligns with 21st-century learning skills that prioritize collaboration, critical thinking, communication, and social competencies, all of which can be effectively nurtured through cooperative learning activities (Bell, 2010; Trilling & Fadel, 2012).

Recent studies have further reinforced the benefits of cooperative learning in various academic domains. For instance, a cooperative learning program was found to enhance both academic learning and soft skills, such as communication, problem-solving, and critical thinking, among engineering undergraduates (Nasr et al., 2022). Another study reported that cooperative learning, when combined with technology, led to increased engagement, motivation, and learning performance in mathematics education students (Mkpado, 2022). Moreover, a comprehensive meta-analysis highlighted the significant impact of cooperative learning on student achievement, social skills, and motivation across diverse subjects and cultural contexts (Akin, 2022). Taken together, these findings underscore the multifaceted benefits of cooperative learning beyond academic achievements. By fostering positive psychological and social development, as well as aligning with contemporary educational priorities, cooperative learning serves as a powerful and versatile pedagogical approach to nurture well-rounded and successful learners in today's educational landscape.

In conclusion, cooperative learning stands out as a well-established and effective instructional approach, offering substantial advantages over competitive or individualistic learning methods. It not only enhances learning outcomes and higher-order thinking but also nurtures students' psychological and social well-being, making it a valuable addition to discussions on effective and contemporary pedagogy. In many undergraduate colleges, traditional collective teaching remains the predominant form of instruction in Chinese traditional culture courses. The typical teacher-teaching path involves conveying "knowledge points → teacher description → conversion into concepts → student memory → abstract symbols". While this method efficiently transfers knowledge within a limited timeframe, it has its drawbacks. Students often become passive recipients of information, and their knowledge retention may weaken or disappear once the course or exam concludes. Additionally, this teaching model fails to accommodate the diverse abilities of students.

In contrast, cooperative learning fosters collaboration among individuals, whether it be students, groups, or teachers and students. By incorporating guidance from teachers and encouraging cooperation among individuals, this model breaks away from traditional cramming-based teaching. It creates an engaging classroom atmosphere, boosts students' active participation, and fosters mutual supervision and improvement among peers. The application of the cooperative learning mode presents a fresh perspective on reforming the teaching mode of traditional culture courses, yielding better teaching outcomes. It not only encourages students to shift from passive acceptance to active participation in the classroom but also aids in the development of their personalities and individual growth. By embracing cooperative learning, educators can enrich the learning experience, promote a positive learning environment, and empower students to become more proactive and engaged learners. This approach aligns with the evolving needs of modern education, facilitating a meaningful transformation in traditional culture education and contributing to the holistic development of students. The primary objective of this study is to investigate the effectiveness of the cooperative learning mode in the context of teaching traditional Chinese culture in universities. The research aims to foster students' understanding and appreciation of traditional culture by employing cooperative learning, thus making a substantial contribution to the field of traditional culture education. The study specifically concentrates on various aspects, including teaching practices, curriculum design, and the reform of teaching modes, within the

university setting. By exploring the potential benefits and outcomes of cooperative learning in traditional culture education, this research seeks to shed light on innovative approaches to enhance students' cultural attainments and promote more effective teaching methodologies.

Methods

Study design and participants: This study adopted a mixed methods approach, and was structured into three main stages: (See figure 1)

Stage 1: Status quo research

The initial stage involves an extensive literature review to understand the theoretical foundations of cooperative learning and the intricacies of traditional Chinese culture education. The objective is to assess the strengths and weaknesses of using cooperative learning in teaching traditional Chinese culture. Additionally, students will be surveyed to gather their perspectives on traditional Chinese culture, their grasp of social skills, their acceptance of cooperative learning, and their interest in participating in cooperative learning-based Chinese culture classes.

Stage 2: Teaching program design and implementation

In this phase, the study aims to develop a comprehensive teaching program for traditional Chinese culture, utilizing cooperative learning methods. Drawing from the insights gained during the status quo research, the program will encompass learning objectives, cooperative learning activity designs, formation of heterogeneous groups, allocation of group roles, provision of feedback, and methods for assessing classroom performance.

Stage 3: Result analysis

The final stage involves analyzing the data gathered during the implementation of the teaching program. This analysis will include a quantitative examination of test scores and a qualitative assessment of student feedback, teacher reflections, and classroom observations. The aim is to discern any disparities in academic performance, learning motivation, and social skills between the experimental group (cooperative learning) and the control group (traditional teaching).

By employing a mixed methods approach and following a systematic three-stage structure, this study endeavors to explore the potential effectiveness of cooperative learning in teaching traditional Chinese culture. The research findings are expected to contribute valuable insights into enhancing traditional culture education and inform pedagogical practices in university settings.

Sample size: The study focused on Chinese university students, and a cluster sampling approach was utilized to select 60 participants. Among 70 universities, the Business College of Shandong University of Engineering and Vocational Technology, China, was randomly chosen. Subsequently, one college was randomly selected from the ten available, and finally, two classes were chosen as the control and experimental groups from this selected college. Following the random assignment of students to the experimental and control groups, cooperative learning for the experimental group and traditional teaching methods for the control group were respectively applied. To ensure study validity, pre-tests and post-tests assessed academic performance, motivation, and social skills in both groups, measuring changes resulting from the teaching methods. To enhance study reliability, identical tests were used for pre- and post-tests, administered under consistent conditions for all students, and evaluated by the same criteria to minimize bias.

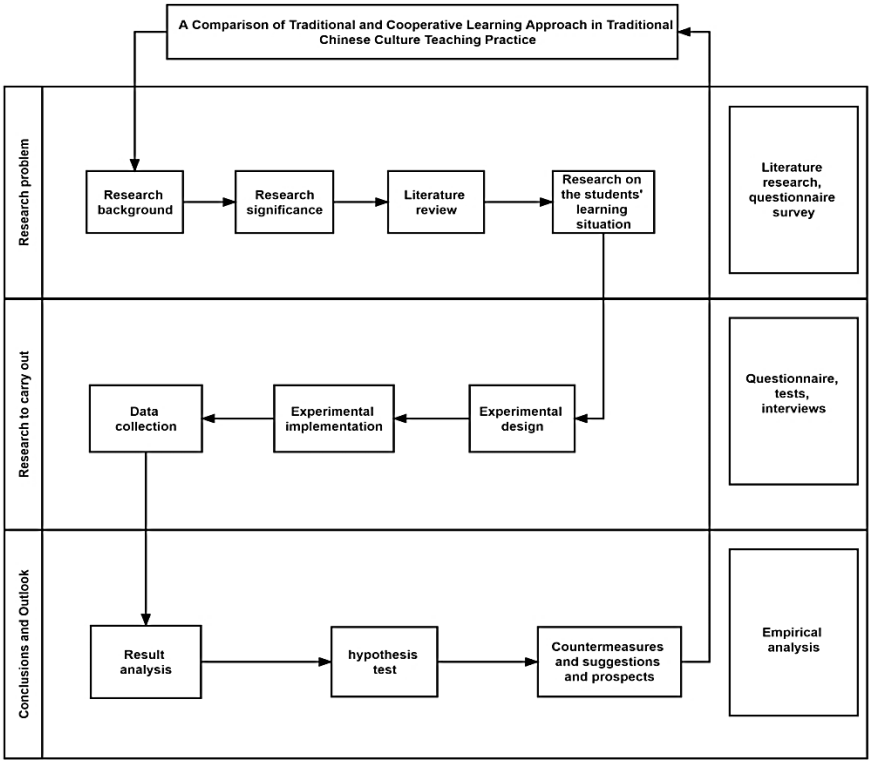

Figure 1. The research phases

Data were collected through tests and questionnaires, and analyzed using statistical methods to compare outcomes between the groups, ensuring objectivity and accuracy. In conclusion, random assignment, differential teaching methods, and rigorous data collection and analysis ensure the experiment's effectiveness, attributing observed outcome differences to the teaching methods, not external factors. Data were collected by true experimental design by utilizing (Table 1).

Instruments and variable

The research employed four key instruments to gather data:

Motivated Strategies for Learning Questionnaire (MSLQ): The MSLQ is a self-report inventory that is used to assess students' motivation and learning strategies. It was compiled by Paul Pintrich and his colleagues in the 1990s (Pintrich, 1991). The MSLQ consists of 81 items that measure three main constructs: motivation, cognitive strategy use, and metacognitive strategy use. The motivation section includes questions about students' intrinsic goal orientation, extrinsic goal orientation, task value, and self-efficacy.

Table 1. True experimental design: Pre and-post-test with control group

Group	Pre-test		Post-test
RE (n = 30)	T1	×	T2
RC (n = 30)	T1	_	T2

R: Randomization; E: Experimental group; C: Control group; T1: Pretest (performance test, motivation, social skills); T2: Post-test (performance test, motivation, social skills); X: Training/intervention (cooperative learning); _: No training (Chinese traditional education)

The cognitive strategy use section includes questions about students' use of rehearsal, elaboration, organization, and critical thinking strategies. The metacognitive strategy use section includes questions about students' use of planning, monitoring, and regulating strategies. The MSLQ has been found to have good reliability and validity. During the examination of the fit of the model in the research, a confirmed value was obtained [χ^2 = 432.01, χ^2/degree of freedom (df) = 1.54, P < 0.001, root mean square error of approximation (RMSEA) = 0.046, standardized root mean residual (SRMR) = 0.045, comparative fit index (CFI) = 0.96, goodness of fit index (GFI) = 0.88]. According to this research, the average variance extracted (AVE) values of all dimensions were higher than the recommended value of 0.5, and the composite reliability (CR) values were all higher than 0.7. These indicators show that the MSCLQ was a reliable instrument (Chai et al., 2016).

The Social Skills Inventory (SSI): The SSI is a self-report scale consisting of 90 questions, and including six subscales: Emotional Expressivity (EE), Emotional Sensitivity (ES), Emotional Control (EC), Social Expressivity (SE), Social Sensitivity (SS), and Social Control (SC), 15 questions for each subscale (Riggio, 2020). The scale was scored in the Likert five-point form, with each subscale ranging between 15 and 75 points, yielding the total SSI score based on the scores of each subscale. In the study by Cao et al. (2009), the Cronbach's alpha coefficient of SSI was 0.81, retest reliability was 0.75, half reliability was 0.84, and correlation coefficient between total score and each factor was between 0.305 and 0.802 [index of confirmatory factor analysis (CFA): χ^2/df: 2.2, GFI: 0.888, CFI: 0.903, incremental fit index (IFI): 0.916, RMSEA: 0.076]. They concluded that using SSI for college students had good reliability and validity (Cao, Huang, Cheng, & Jiang, 2009).

Performance test: The performance test is a score-based assessment that is evaluated on a maximum score of 100 points. The test was carefully reviewed by a lecturer of Chinese Traditional Culture from Shandong Engineering Vocational and Technical University, who would select the average score given by three other lecturers. This approach was intended to uphold the objectivity and accuracy of the scoring process and reinforce the reliability of the test results.

Semi-structured interviews: The fourth instrument in this study is a set of semi-structured interviews. The interviews contain 10 questions designed to probe three key areas: academic achievement, motivation, and social skills. The interviews also examine students' opinions on the cooperative learning method used in the study. The semi-structured format of the interviews allows for open-ended questions that can elicit detailed responses, providing an opportunity to delve deeper into participants' experiences and perspectives. This method can be instrumental in understanding complex phenomena and offers researchers the opportunity to identify factors that may influence the effectiveness of cooperative learning.

These four instruments, each with their unique benefits, provide a comprehensive approach to data collection. The combination of these methods allows for a robust analysis of both quantitative and qualitative data, ensuring a thorough understanding of the impact of cooperative learning on traditional Chinese cultural education.

Data analysis: Qualitative study: The qualitative data in this study were collated and analyzed using NVivo, integrating interviews, group discussions, questionnaires, and more. In the study, researchers coded the information obtained by students during interviews (the process of coding was in building the text) to discover the internal connections and rules between things by importing material, coding, querying, drawing, and other steps to obtain qualitative data visualization to get clear analysis results.

Quantitative study: The quantitative data in this study were analyzed using mixed analysis of variance (ANOVA) to analyze and compare the performance of the experimental and control groups in the experiment and model by specifying intra- and between-subject factors and their interactions (McGregor, 1961). The mixed ANOVA was first introduced by Emanuel Parzen in 1960, and it has since been further developed (Parzen, 1960) and refined by many other statisticians and researchers (Tabachnick, Fidell, & Ullman, 2013). In this research, the independent variable (Barzaki, Abolmaali, & Momivand, 2022) was the new teaching plan (cooperative learning and Chinese traditional culture), and the dependent variable was the performance test scores, motivation, and social skills. The between-subjects factor was the group (experimental vs. control), and the within-subjects factor was time (pre-test vs. post-test).

Results

The participants in the experimental study consisted of 60 students randomly selected from 2000 college students in the grade 2021 class of Shandong Engineering and Vocational and Technical University. These students were divided into two groups. The experimental group included 30 participants, with 13 men and 17 women: one at age 21, one at age 20, two at age 19, and sixteen at the age of 18. The control group included 30 individuals, with 18 men and 12 women: two at age 20, three at age 19, fourteen at the age of 18, and one at age 17.

Quantitative data

Pre-test: To avoid the significance between the groups in mixed ANOVA caused by the significant difference between the two groups in advance, this paper first analyzed the differences in the performance score, social skills, and motivation level of the two groups in the pre-test, and the results are as follows:

As can be seen in table 2, all different group samples showed no significance for performance score, skill, and motivation ($P > 0.05$), which means that all different group samples show consistency for score, skill, and motivation, and there is no significant difference. Therefore, the baseline data of the two groups are consistent and comparable, allowing for subsequent analysis.

Table 3 shows the mean score of the control group in pre-test and post-test. As can be seen from the above table, in the three dimensions of performance score, skill, and motivation, the mean value of the pre-test and post-test scores of the control group did not change significantly, and the mean range of change was within 0. It can be preliminarily inferred that the control group had no significant change in the pre-test and post-test scores.

Table 4 shows the mean score of the test group before and after. As can be seen from the above table, in the three dimensions of performance score, skill, and motivation, the mean value of the test group changed significantly, and the performance score increased from 72.567 to 84.967, skill score from 2 to 3, and motivation score from 2 to 4.

Table 2. Pretest intergroup analysis

	Group		t	P-value
	Control (n = 30)	Experimental (n = 30)		
	Mean ± SD			
Performance score	74.20 ± 7.19	72.66 ± 8.04	0.780	0.439
Skill	2.45 ± 1.00	2.44 ± 0.99	0.022	0.983
Motivation	2.39 ± 0.91	2.37 ± 0.85	0.082	0.935

SD: Standard deviation

Table 3. Classification and summary of control group

Group	Time	Performance score	Skill	Motivation
Control	Pre	74.100	2.446	2.385
	Post	73.500	2.480	2.334
	Total	73.800	2.463	2.360

It can be found that the scores of each group have changed greatly, and it can be preliminarily inferred that the test group had significant differences before and after the measurement.

The mixed ANOVA results suggest that there were significant main effects of both time and group, as well as significant interaction effects between time and group, on each of the dependent variables (performance score, motivation, and social skills). This indicates that the cooperative learning method had a significant impact on these variables over time compared to the control group, supporting the effectiveness of the intervention.

The results from mixed ANOVA can be interpreted as follows:

Performance score: Table 5 shows that the main effect of time was found to be statistically significant [$F(1) = 19.25$, $P < 0.001$]. This indicates a significant change in scores from the pre-test to the post-test across both groups. Additionally, the main effect of the group was also found to be significant [$F(1) = 5.81$, $P = 0.019$], suggesting a notable difference in scores between the control and experimental groups. Of particular interest, the Time × Group interaction was highly significant [$F(1) = 23.37$, $P < 0.001$], indicating that the change in scores over time differed significantly between the control and experimental groups. This finding suggests that the experimental intervention, involving the cooperative learning method, had a substantial impact on the participants' scores over time when compared to the control group (Table 5).

Motivation: In table 5, it is evident that the main effect of time had a significant impact [$F(1) = 59.60$, $P < 0.001$], signifying a substantial change in motivation levels from pre-test to post-test across both groups. Moreover, the main effect of the group also showed significance [$F(1) = 23.08$, $P < 0.001$], highlighting a notable difference in motivation levels between the control and experimental groups. Furthermore, the Time ×Group interaction proved to be statistically significant [$F(1) = 66.06$, $P < 0.001$], indicating a significant disparity in the change of motivation levels over time between the control and experimental groups. This finding strongly suggests that the implementation of the cooperative learning method had a significant impact on participants' motivation levels over time when compared to the control group (Table 5 for detailed results).

Social skills: In table 5, it is evident that the main effect of time had a significant impact [$F(1) = 25.67$, $P < 0.001$], indicating a considerable change in skill levels from pre-test to post-test across both groups. Moreover, the main effect of the group also showed significance [$F(1) = 8.53$, $P = 0.005$], suggesting a noteworthy difference in skill levels between the control and experimental groups. Furthermore, the Time × Group interaction proved to be statistically significant as well [$F(1) = 22.94$, $P < 0.001$], indicating a substantial difference in the change of skill levels over time between the control and experimental groups.

Table 4. Classification and summary of experimental group

Group	Time	Performance score	Skill	Motivation
Experimental	Pre	72.567	2.440	2.367
	Post	84.967	3.650	4.350
	Total	78.767	3.045	3.358

Table 5. Mixed analysis of variance (ANOVA) data analysis

Dependent variable	Source	df	SS	MS	F	P-value
Performance score	Time	1	1044.300	1044.300	19.25	< 0.001
	Group	1	740.033	740.033	5.81	0.019
	Time × Group	1	1267.500	1267.500	23.37	< 0.001
Motivation	Time	1	27.998	27.998	59.60	< 0.001
	Group	1	29.914	29.914	23.08	< 0.001
	Time × Group	1	31.033	31.033	66.06	< 0.001
Social skills	Time	1	11.608	11.608	25.67	< 0.001
	Group	1	10.176	10.176	8.53	0.005
	Time × Group	1	10.371	10.371	22.94	< 0.001

df: Degree of freedom; SS: Sum of squares; MS: Mean squares

This finding strongly suggests that the implementation of the cooperative learning method significantly affected participants' skill levels over time when compared to the control group (Table 5 for detailed results).

Again, table 2 and figure 2 are illustrating that for each dependent variable (performance score, motivation, and social skills), there are significant main effects for both time and group, as well as significant interaction effects between time and group. This suggests that the experimental group showed significant improvement from the pre-test to the post-test compared to the control group in all areas: achievement scores, motivation, and social skills.

In summary, results suggest that the cooperative learning method significantly improved participants' scores, skills, and motivation over time compared to the control group. This implies that the cooperative learning method was effective in improving these three dimensions in this study.

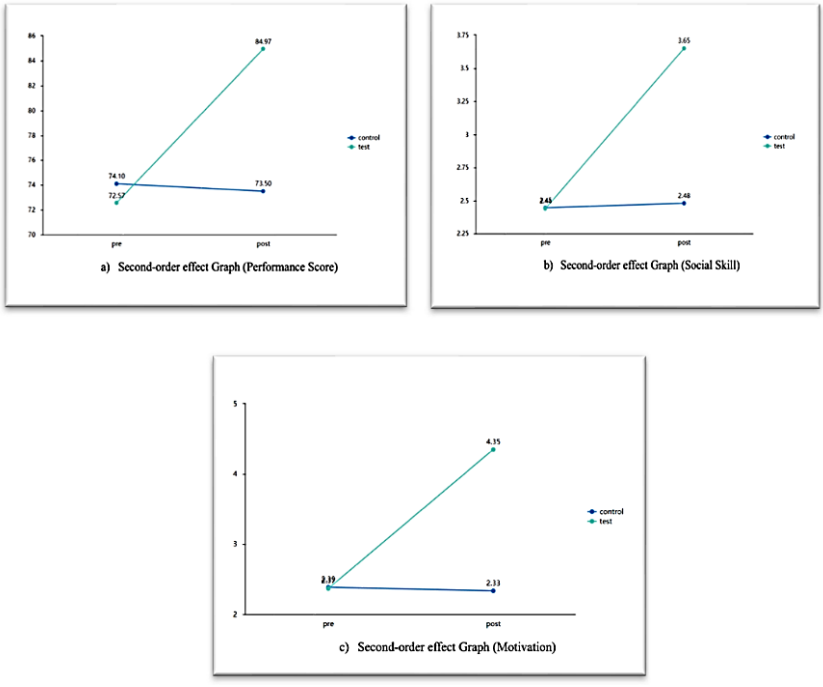

Figure 2. The second-order effect graph (performance score, motivation, and social skills)

Qualitative data

Experimental group: In the teaching of traditional Chinese culture education in colleges and universities, this paper interviews 10 students in the experimental group, that is, 10 students who have carried out cooperative learning methods.

Through interviews with 10 students, it was found that 10 students liked the cooperative teaching method, and there were five main reasons for liking the cooperative teaching method, namely being more conducive to learning traditional culture (n = 10), cultivating skills (n = 10), meeting emotional needs (n = 4), exercising thinking ability (n = 10), and improving concentration (n = 10).

In terms of traditional culture, cooperative teaching methods can effectively help students understand and appreciate traditional culture, and on this basis, students can have a deeper understanding of cultural values and beliefs. The qualitative data were collected through interviews with 10 students from the experimental group. The students described the characteristics of cooperative learning methods and provided reasons for their preference for these methods. They also discussed the types of skills developed through these methods and the impact on their concentration.

Through the interview materials, we learned that the types of skills cultivated by cooperative teaching methods were mainly comprehension ability, communication ability, teamwork ability, problem-solving ability, and leadership. In terms of comprehension skills, cooperative learning methods can make students more engaged in class and effectively help students understand and remember materials. In terms of communication skills, the cooperative learning method can help students develop communication skills and feel more comfortable sharing ideas in teamwork. In terms of teamwork skills, cooperative learning methods can help students develop team working skills and feel more comfortable sharing ideas in teamwork. In terms of problem-solving skills, cooperative learning methods can help students develop problem-solving skills. In terms of leadership, since the project is completed by discussing in small groups, it can help students develop leadership. For the experimental group that underwent cooperative learning, several key themes emerged from the interviews:

1. Characteristics of cooperative learning: All 10 students described the main feature of cooperative learning as completing projects through group discussions. Six students highlighted the role of the teacher's guidance and feedback during these group activities. This highlights cooperative learning as a student-centered approach with the teacher playing a supportive role.

2. Preference for cooperative learning: All 10 students liked the cooperative teaching method. They highlighted several reasons for this:

- Understanding traditional culture: Cooperative learning helped students understand and appreciate traditional culture, allowing them to comprehend cultural values and beliefs deeply.
- Skill development: Cooperative learning fostered various skills, including comprehension, communication, teamwork, problem-solving, and leadership. All students mentioned developing these skills to varying extents.
- Emotional needs: Four students mentioned that cooperative learning helped them to build strong bonds with their classmates, making the classroom experience more enjoyable.
- Exercising thinking skills: Students reported that cooperative learning enhanced their ability to see and analyze problems from different perspectives.
- Improving concentration: Cooperative learning improved student interaction and

made classes more fun, positively affecting concentration.

The qualitative data from the interviews showcased the specific skills honed through cooperative teaching methods, including comprehension, communication, teamwork, problem-solving, and leadership abilities.

Overall, the experimental group demonstrated a positive response to cooperative learning, with unanimous approval for its effectiveness in fostering a deep appreciation for traditional culture and promoting diverse skill sets. The student-centered nature of cooperative learning, with teachers providing guidance and feedback during group activities, contributed to its appeal. The findings underline the significance of cooperative learning as an effective and engaging educational approach.

Control group: The control group, which underwent traditional direct teaching, was subjected to interviews to assess their experiences during the 16 weeks of study. The interviews brought to light the following key observations:

1. Academic improvement: When asked about their grades, 6 out of 10 students mentioned that traditional direct teaching methods had little impact on their academic achievement. They felt that another teaching approach could lead to a deeper understanding of the subject matter. On the other hand, 4 students believed that traditional direct teaching methods could influence academic performance positively, but they also expressed that adopting cooperative teaching methods might further enhance academic outcomes.

2. Grade performance: Analyzing the feedback from the 10 students regarding the impact of traditional direct teaching methods on their grades showed that these methods did not lead to significant improvements in academic performance.

3. Engagement and motivation: Nine out of the 10 students described experiencing difficulty in engaging with classroom learning under the traditional direct teaching method and social skills were not visibly exercised. Their motivation to learn was notably low. However, one student believed that traditional teaching methods had a relatively limited impact on learning motivation.

Based on the feedback from the 10 students regarding learning motivation and social skills, it was analyzed that traditional direct teaching methods did not significantly affect these aspects of the learning process.

In conclusion, the qualitative analysis indicated that students preferred cooperative learning over traditional direct teaching methods. They found cooperative learning more interactive, focused on skill development, and capable of making the learning experience more engaging and enjoyable.

Discussion

The primary objective of this research was to compare the teaching process of Chinese traditional culture courses and the effectiveness of cooperative and traditional teaching methods in enhancing students' academic performance, motivation, and social skills in the context of a traditional Chinese culture course. This study's conclusions are supported by other literature that investigates the effects of cooperative learning on student's learning outcomes, learning motivation, academic achievement, and social behavior. For instance, Yeni et al. (2024) discovered that the application of the student teams achievement divisions (STAD) cooperative learning model could improve the learning outcomes of seventh-grade students at seventh-grade high school students, emphasizing the positive impact of cooperative learning on academic performance (Yeni, Grgurina, Saeli, Hermans, Tolboom, & Barendsen, 2024). Salamah et al. (2024) showed that cooperative learning significantly

increased the learning motivation of fourth-grade students in Mojokerto, Indonesia, highlighting the importance of cooperative learning in enhancing student engagement (Salamah, Rifayanti, & Trisnawaty, 2024). Furthermore, Khan et al. (2024), through a comprehensive review of existing literature and theoretical frameworks, examined the impact of cooperative learning on students' academic achievements and social behavior, providing valuable insights for educators and policymakers on implementing effective instructional strategies (Khan, Noreen, & Hussaini, 2024).

Numerous studies have documented the positive impact of cooperative learning on students' academic performance. These findings are supported by Ismail et al. (2023) research, which demonstrated that the Think-Pair-Share (TPS) cooperative learning approach improved student performance and participation in vocational and technical education (Ismail, Bungsu, & Shahrill, 2023).

The role of cooperative learning in boosting students' motivation is well-documented. Alwi and Aziz (2024) and Salamah et al. (2024) studies have both reported that cooperative learning activities increase students' motivation by fostering an interactive learning environment where students engage with their peers, share ideas, and solve problems together (Alwi & Aziz, 2024; Salamah et al., 2024). This engagement not only enhances their learning experience but also motivates them to delve deeper into the subject matter, reflecting a more profound interest in their studies.

Cooperative learning is also recognized for its significant impact on developing students' social skills. Through the process of working in groups, students learn to communicate effectively, resolve conflicts, and collaborate towards common goals, thereby enhancing their social competencies. Sulistyowati and Jubaidah (2024) observed remarkable improvements in students' social skills following the application of modified Carousel Feedback and Inside Outside Circle methods (Sulistyowati & Jubaidah, 2024). These findings align with those of MULYANA et al. (2024), who noted significant enhancements in social skills among students engaged in cooperative learning, emphasizing the model's capacity to foster essential interpersonal skills and teamwork. Tabachnick et al.Indicatied the broader applicability of cooperative learning strategies in fostering social abilities among students (Tabachnick et al., 2013).

The study's results about the principal objective reveal that when students partake in group-oriented cooperative learning, they display enhancements in their cooperative skills, which, in turn, facilitate their comprehension of the primary values encapsulated in traditional Chinese culture. This improvement in cooperative skills plays a crucial role in enhancing their understanding of traditional Chinese culture, ultimately leading to a more profound appreciation of its underlying values.

Thus, the cooperative learning approach utilized in this study not only resulted in a significant enhancement in academic achievement but also facilitated a deeper understanding of traditional Chinese culture through the development of cooperative skills. This acquired knowledge can serve as a guiding principle and can be applied to specific real-life situations.

Conclusion

The findings of the study indicate that cooperative learning is an effective 1.Enhanced achievement scores: Students taught through cooperative 1.Increased Learning Motivation: The cooperative learning environment 3.Improved Social Skills:

Cooperative learning facilitated the development 4.Deeper Cultural Understanding: Students in cooperative learning

Conflict of Interests

Authors have no conflict of interests.

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