



Curriculum Design Strategies for Cultivating Chinese Excellent Traditional Cultural Identity in Wushu Teaching

Xue Wang¹, Antonio D Mangaliag² and Yuyi Ye^{3,*}

¹ ZHEJIANG YUEXIU UNIVERSITY, Shaoxing, Zhejiang, 312000, China

² University of Baguio, 2600, Philippines

³ School of Teacher Education, Hezhou University, Hezhou, Guangxi, 542899, China

SUMMARY: *The study introduces the concept of OBE to integrate the Wushu curriculum with Chinese excellent traditional culture in order to cultivate socialist builders and successors with all-round development in ethics, intellect, physique, aesthetics, and labor. The Wushu Cultural Identity Scale for Secondary School Students was used as a research tool, and a questionnaire survey was conducted on 530 students from two schools through convenience sampling. Latent profile analysis (LPA) was utilized to explore the students' subtypes of Chinese excellent traditional cultural identity and seek the heterogeneity of the student population. The total mean score of Wushu cultural identity was 3.71, which was generally in the medium-high level, while the mean scores of Wushu cultural identity confirmation and behavioral involvement were 3.33 and 3.22, respectively, which were still to be improved. There are three types of tested students: low cultural identity type, medium cultural identity type and high cultural identity type, accounting for 25.10%, 46.21% and 28.69%, respectively, and there are significant differences in the scores and trends of each group on each type, which indicates that there is heterogeneity in this student group. This paper provides theoretical and practical references for the inheritance and development of traditional martial arts and lays the foundation for the high-quality development of compulsory education.*

KEYWORDS: *questionnaire survey; latent profile analysis; cultural identity; wushu teaching*

1 Introduction

Culture is one of the symbols of a country's comprehensive national strength. Nowadays, while countries in the world are engaged in fierce competition in economic, military and other fields, cultural factors and cultural competition are becoming more and more prominent, and international cultural competition is escalating [1]. Chinese Wushu, as an excellent traditional Chinese culture, has formed a deep cultural meaning integrating action, thought, etiquette and morality under the long-term historical development. From the point of view of the development of wushu, China has painstakingly pursued and invested a great deal of human, material and financial resources, but has never realized the great domestic prosperity and international development according to our ideal will, the reason is mainly because of the longstanding controversy over the national recognition of wushu sports and wushu culture [2-6]. This controversy is manifested in the impact of foreign sports in school sports on wushu sports, such as taekwondo, basketball, volleyball and soccer, in which students show a relatively strong interest in learning [7, 8]. As a national treasure, Wushu is rich in nationalism and

*yeyumiao258369@163.com

<https://doi.org/10.65102/is2026242>

deserves to be recognized and studied and promoted by the majority of young students. Literature [9] field research shows that Cangzhou Wushu effectively promotes cultural identity and national unity by integrating tradition and modernity through multiple inheritance modes, and enhances the influence of Chinese culture in international exchanges. Therefore, it is crucial to design a wushu curriculum targeting cultural identity in wushu teaching with the aim of promoting Chinese wushu culture and enhancing cultural confidence.

The current situation and research content of martial arts education. Literature [10] indicates that the curriculum construction of traditional intangible cultural heritage martial arts teaching in universities has three cooperation models: "attached" outside the school, "reconstruction" within the school, and "integration" between the school and the local area. The focus of inheritance lies in local knowledge, core skills and cultural traditions, aiming to cultivate innovative talents who can integrate tradition and modernity. Literature [11] reveals the key challenges of curriculum accessibility, content attractiveness and resource support, and develops a six-phase comprehensive intervention plan covering curriculum optimization, resource enhancement and teacher development to overcome the existing barriers and maximize the potential of Wushu education in the promotion of students' holistic development and cultural inheritance through systematic improvement. Literature [12] points out that innovative teaching models and social cognition are needed through curriculum diversification, modernization of methods, and integration of cultural connotations to promote the sustainable development and global dissemination of Wushu culture. Literature [13] discusses the integration strategy of Wushu and modern physical education, and shows that effective integration can enhance students' knowledge of and interest in Wushu culture, as well as their sense of cultural pride, thus promoting the inheritance and development of traditional Wushu in the education system. Literature [14] optimizes the teaching syllabus of public physical education wushu courses based on the concept of outcome-oriented education and integrates this concept into the whole teaching process, which is used to improve the quality of the courses, promote the development of students' physical fitness and cultivate compound talents. Literature [15] compared and analyzed the gap between urban and rural wushu teaching, and the results showed that due to economic constraints, rural areas lagged behind urban areas in the form of curricula, classroom hours and program selection, and there were also urban-rural differences in teachers' and students' understanding of wushu and teaching attitudes, which affected the balanced inheritance of wushu culture. Literature [16], through interviews with 28 coaches from clubs and schools, found that although the teaching methods of Chinese youth Wushu have been adjusted, the stereotypes of traditional contents still exist, with schools focusing on routine teaching and clubs attempting to incorporate traditional culture into the development of new curricula, but lack of systematic programs and diversified teaching methods, and have not yet broken through the framework of the traditional professional training and competition system. Literature [17] found that five nine-year compulsory education schools in Guangdong lacked martial arts etiquette, boxing characteristics, and multiple evaluation systems in the current Wushu curriculum materials, which need to be systematically optimized and constructed. It can be seen that there are still various problems in the teaching system of wushu, and there is a lack of curriculum research on the cultivation of cultural identity.

In this study, through extensive review of literature and books on martial arts, we grasp the current status of research related to the cultivation of Chinese excellent traditional cultural identity in martial arts courses, and compile the Wushu Cultural Identity Scale for secondary school students as a research tool. Taking two schools in Shanghai as the experimental sites, we first analyzed the characteristics of the development and change of middle school students' wushu cultural identity based on the results of the scale measurements, and then explored the students' wushu cultural identity subtypes by using the latent profile analysis (LPA) to seek the

heterogeneity of the student groups. Finally, multiple logistic regression model analysis was used to explore the relationship between students' cultural identity types and related variables.

2 Research design

2.1 Subjects of study

Based on the context of wushu in school, this study was conducted to investigate the teaching effects of a wushu program on four aspects of junior high school students' physical fitness, emotion, learning interest, and wushu cultural identity.

2.1.1 Selection of experimental subjects

A total of six grades, first to third year of junior high school and first to third year of senior high school, were selected from College A Affiliated High School and the Fourth Affiliated High School of University B in Shanghai as the experimental sites, respectively.

2.1.2 Screening of experimental subjects

Inclusion criteria:

- (1) The age is between 11-15 years old.
- (2) Before formally conducting the experimental test, students in the experimental group and the control group were tested for health and fitness, and questionnaires on the Wushu Excellent Traditional Culture Identity Scale were distributed to the students.
- (3) Students who voluntarily participated in this Wushu course teaching experiment and were able to insist on participating in this course throughout.

Exclusion criteria:

- (1) Students who suffer from congenital visceral diseases, viral hepatitis, hypertension, asthma and bleeding tendency diseases, etc., and cannot accept larger load exercise.
- (2) Students who do not meet the inclusion criteria on the pre-laboratory health fitness test after enrollment should be promptly excluded.
- (3) Students who were absent more than 10% during their participation in the experiment after being selected should be excluded.
- (4) Students who failed to fill out the Wushu Cultural Identity Questionnaire for secondary school students (blank questionnaire, too many omissions of questionnaire filling options) should be excluded.
- (5) Students who were injured or suffered from serious physical discomfort during the experiment after being selected should be terminated and excluded from the experiment.

2.2 Curriculum Design Strategies for Cultivating Wushu Cultural Identity

The OBE concept is used to design the Wushu curriculum, strengthen the top-level design, focus on health first, patriotic education, moral code education, etc., formulate the curriculum objectives, and incorporate the concept of curriculum ideology into the curriculum on the basis of the graduation requirements and professional competence cultivation. Based on the above ideas, teachers implement the values of martial arts ethics, martial arts etiquette, patriotism and love for the Party, and the essence of the nation into the objectives of each class, from the primary to the advanced level, and the accumulation of small amounts into a large number, and ultimately achieve the organic unity of the three aspects of “knowledge transfer, value leadership, and ability training”.

2.2.1 Targeted design

The goal of the Civics and Politics of Wushu course is to lead students to positive development, enhance their humanistic qualities, cultivate their patriotism, spirit of unity and cooperation, and the martial arts spirit of respecting the teacher, and broaden their horizons of wushu, so as to let them feel the unique charm of wushu. Teachers should adhere to the organic unity of the learning of martial arts techniques and moral education, and penetrate the content of martial ethics and martial rites in the attitude, emotion and value objectives, so as to ensure the completion of the Civics and Politics objectives of this course.

The course objectives are as follows:

- (1) To enable students to master and be able to utilize the basic knowledge and skills of Wushu sports.
- (2) To develop and maintain students' physical fitness.
- (3) To cultivate students' sense of competition, tenacious quality of will and spirit of cooperation, and to equip students with strong social adaptability.
- (4) To emphasize the teaching of martial arts ethics and etiquette to students and to enhance their sense of national pride.

2.2.2 Instructional content design

Teachers of the teaching and research team integrate moral education and martial arts culture organically, and determine the following teaching content: grasp the core idea of the course's ideology and politics → excavate the elements of the martial arts course's ideology and politics → condense the characteristics of the martial arts skills program → design the teaching scenario → the story is integrated into the ideology and politics. Take the teaching content design of the excellent tradition of Chinese culture in the martial arts course as an example.

Teachers divide the teaching content into two parts for teaching, i.e., the theoretical part and the practical part. Teachers start from the origin and development of wushu culture, the patriotic deeds and noble character of wushu people, and the innovative spirit of wushu to emphasize the emotion and value of wushu culture, and to stimulate students' self-confidence and patriotic enthusiasm.

2.2.3 Evaluation system design

Teaching evaluation is an important part of the course, and the author has added three modules on the basis of the original assessment of martial arts courses, such as evaluation of teacher ability, evaluation of teaching content, and evaluation of student learning. Specifically as follows.

(1) Teacher ability evaluation. Teachers, as the main body of teaching, have a direct impact on the development of students in terms of their ideology, so it is very necessary to strengthen the cultivation of teachers' ideological and political ability. The teaching supervisory group and experts in related fields evaluate the teachers' ideological and political ability.

(2) Evaluation of teaching content. The school's Civics experts evaluate the appropriateness of the teaching content designed by the teachers and whether it contains Civics content such as the identification with the excellent traditional Chinese culture and the patriotic outlook.

(3) Evaluation of student learning. Student learning evaluation includes: ① Skill evaluation, i.e., the teacher grades the students' movement quality and rehearsal level according to the Wushu assessment standards; ② Stage evaluation, i.e., the teacher conducts a comprehensive evaluation of the students' performance (including technique, attendance, learning, and active interactivity, etc.); and ③ Evaluation of Excellent Traditional Chinese Cultural Identity.

2.3 Research process

2.3.1 Experimental time and subjects

(1) Experimental time: September 1, 2024-December 25, 2024, a total of 16 weeks, the first two weeks for the pre-experimental test, the second two weeks for the post-experimental test, due to the holidays and the school games can not be on time for the course teaching, so the actual time of the sports experimental intervention for 10 weeks, and experimental group and the control group of the classroom time is separate.

(2) Experimental subjects: a total of 530 students in six grades in two schools, A and B. The experimental intervention was conducted in two schools.

In the process of experimental intervention, there are students failed questionnaires, physical discomfort and absenteeism and other reasons to withdraw from the experiment, so the effective number of experimental 502 people, including 249 boys and 253 girls, of which the number of junior to senior high school were 79, 82, 75, 88, 84 and 94 people respectively.

2.3.2 Research tools

Some of the question items of the Wushu Cultural Identity Scale for Middle School Students by related scholars were adapted to the Wushu Cultural Identity Scale used in this study, which was divided into four dimensions. Question items 1-13 are entitled Wushu Cultural Value Judgment Dimension, 14-23 are entitled Wushu Cultural Emotional Involvement Dimension, 24-30 are entitled Wushu Cultural Behavioral Involvement Dimension, and 31-38 are entitled Wushu Cultural Identity Confirmation Dimension. Among them, the Wushu Activity Levels section is part of the questions in the compiled Physical Activity Levels Scale.

2.3.3 Experimental design

The teaching process of the experimental Wushu program was carried out according to the curriculum design process of Wushu cultural identity cultivation, and the experimental process included: teachers' teaching style, teaching venues, weather conditions, and students' after-school sports exercise, etc. All of which may affect the results of the experiment.

Methods of controlling experimental variables: In order to minimize the influence of different physical education teachers' teaching abilities and teaching styles on the results of the experiment, the teachers were trained in the two-week "Wushu in Schools" program before conducting the teaching experiment, and the same teachers were used in each school to conduct the teaching experiment. There was no difference between the two schools in terms of teaching space and teaching hours for the participating classes. During the experiment, students were not allowed to participate in other sports training after school, such as sports clubs, to avoid affecting the results of the experiment.

2.4 Mathematical and statistical methods

In this study, SPSS was used to conduct the reliability test and the collation and analysis of data, and the data of students' age, gender and the situation of cultural identity of martial arts were analyzed to come up with the strategy of the level of students' identity of martial arts. Data such as the effect of the role of students' martial arts cultural identity were analyzed to draw conclusions.

The latent profile model (LPA) is composed of categorical latent variables and continuous observed variables. It has been argued that latent profile analysis is superior to factor analytic models as a means of identifying latent groups. Over the past decade or so, this type of latent variable modeling has evolved, especially as a tool for cluster analysis. Latent profile analysis

is based on the second interpretation of the correlation coefficient, i.e., that the correlation reflects the presence of discrete groups. Within the population, each latent category represents the average of different observed variables. To understand how the latent profile model differs from the common factor analysis model, again cite the positive correlation between truancy and illicit drug use. Common factor models assume that the correlation reflects the presence of a potential antisocial behavioral aspect. In contrast, this same correlation observed in the latent profile model indicates the presence of two qualitatively different types of adolescents, one latent group with high levels of truancy and illicit drug use, and another latent group with low levels of truancy and illicit drug use. When mixed together, the total group of adolescents will exhibit a positive correlation between the observed variables for truancy and drug use. Thus, factor analysis models interpret the observed correlation to be represented by a continuous latent factor, whereas latent profile models suggest that the correlation can be represented by a latent category group. Similar to the common factor model, related scholars have argued that by replacing the correlation between the observed variables described above with groups of potential categories, the residual correlation will tend to zero. In potential profile analysis, it is assumed that the total population consists of potential type compositions that can be referred to as C . Since the indicators are continuous variables, it is often assumed that their conditional distribution is normal, with the following probability density function:

$$f(y) = \sum_{x=1}^C P(x) f(y | \mu_x, \Sigma_x) \quad (1)$$

The equation in Eq. (1) is the probability density function, and $f(y)$ is the density of a particular mixing class. Each potential class has its own mean vector μ_x and covariance matrix Σ_x . The proportion of each individual attributed to a potential category is denoted by $p(x)$. The model structure is similar to that of quadratic discriminant analysis, with the important difference that the number of classes in the model is unknown.

The variance and covariance equations for the observed variables in the potential profile analysis are described below:

$$\sigma_{ii} = \sum_{k=1}^K \pi_k (\mu_{ik} - \mu_i)^2 + \sum_{k=1}^K \pi_k \sigma_{iik}^2 \quad (2)$$

and:

$$\sigma_{ij} = \sum_{k=1}^K \pi_k (\mu_{ik} - \mu_i)(\mu_{jk} - \mu_j) \quad (3)$$

where i and j are the observed variables and k is the identified latent category. μ_{ik} represents the mean of the observed variable in the k latent categories, σ_{iik} represents the variance of the observed variable in the k latent categories, K is the number of latent categories, and π_k is the percentage of the population attributed to the k latent categories. Proportion.

3 Findings and analysis

3.1 Reliability analysis of students' cultural identity in martial arts

3.1.1 Scale reliability analysis

The reliability of the scale was evaluated using the Cronbach α consistency reliability test and the retest reliability test, and the results of the reliability analysis of the middle school students' martial arts cultural identity scale are shown in Table 1. The Cronbach's α coefficient of the Wushu cultural identity subscale of secondary school students ranged from 0.81 to 0.88, and the total scale was 0.92, indicating that the scale had a certain internal consistency reliability, and the correlation coefficient of the Wushu cultural identity subscale of secondary school students ranged from 0.72 to 0.79, and the total scale was 0.78, indicating that the scale had a certain retest reliability. Combining the above two indicators, the Wushu Cultural Identity Scale for Middle School Students has a certain degree of reliability.

Table 1: Analysis of the analysis of the recognition scale of martial arts culture

	Code	Number	Internal consistency reliability	Re-reliability
Value judgment	VJ	13	0.84	0.79
Emotional input	EI	10	0.88	0.77
Behavior involvement	BI	7	0.84	0.72
Identification	II	8	0.81	0.73
Total scale	Total	38	0.92	0.78

3.1.2 Validity analysis of the scale

(1) Content validity of the scale

This study followed the following points in the initial scale development process:

1) The basic structure of the scale was proposed based on the relevant qualitative research results of previous researchers.

2) The dimensions and measurement entries of the scale refer to existing domestic and international related scales.

3) The expert evaluation method was utilized to evaluate the degree of fit of each measurement entry in the scale with the corresponding dimension and the degree of suitability of the semantic expression of the entry, and the scale was revised based on the feedback from eight experts, and measurement entries with vague meaning, inaccuracy, repetition, cross-coverage, etc. were revised, merged, and deleted, and the preliminary measurement scale was finally formed. The implementation of the above measures ensured that the scale had a certain content validity.

(2) Structural validity of the scale

After item analysis the initial scale was retained to 38 valid entries, using these entries for validation factor analysis, the results of scale validation factor analysis are shown in Table 2, and the second-order 5-factor model and its path coefficients are shown in Figure 1. Among the various fit indices of the scale $\chi^2 / df = 3.78 < 4$, RMSEA < 0.05 , and the rest of the fit indices are close to 0.90, indicating that the scale of this study has some structural validity. As shown in the figure, middle school students' martial arts cultural identity is a multidimensional structure, consisting of one second-order factor (martial arts cultural identity) and four first-order factors (martial arts cultural value judgment, martial arts cultural emotional engagement, martial arts cultural behavioral involvement, and martial arts cultural identity confirmation).

Table 2: Analysis results of the test factor

	χ^2 / df	GFI	AGFI
Fit index	3.78	0.85	0.83
	TLI	CFI	RMSEA
Fit index	0.88	0.88	0.03

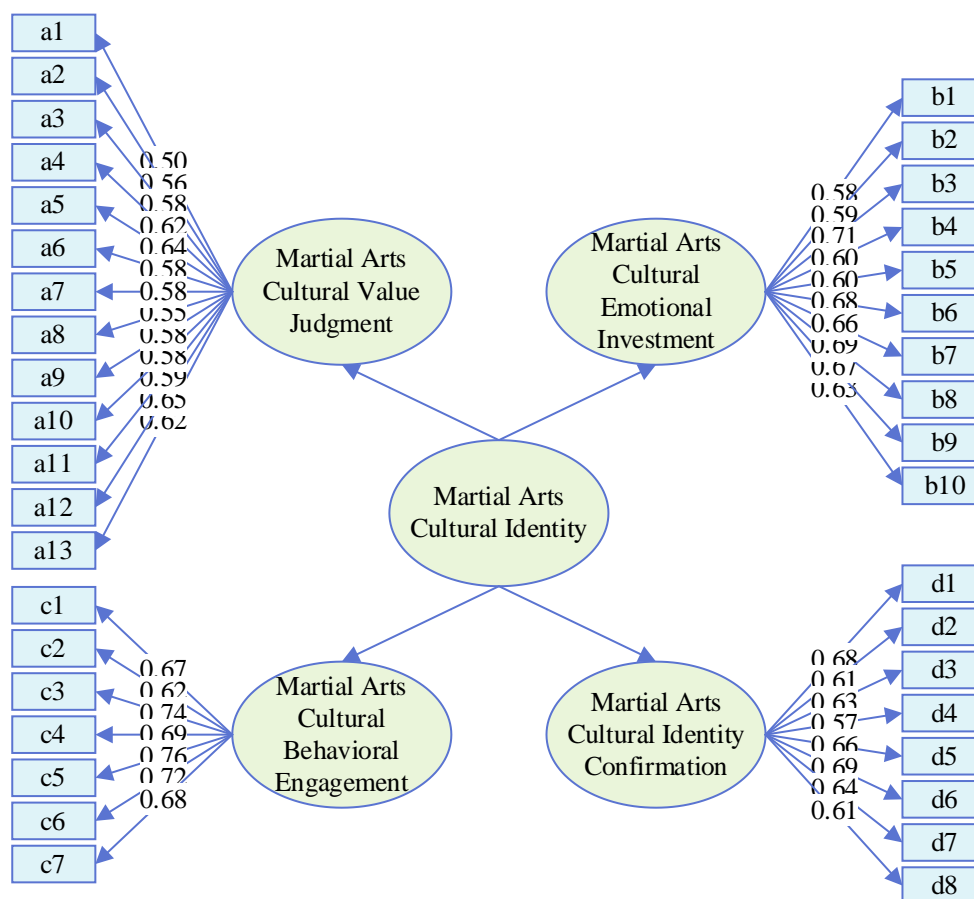


Figure 1: Second order 5 factor model and its path coefficient

3.2 Characterization of Students' Wushu Cultural Identity

3.2.1 Analysis of the Overall Situation of Students' Cultural Identity in Wushu

Utilizing a 5-level Likert scoring scale to measure and evaluate accordingly, the survey results found that the number of 502 middle school students who scored more than 3 (representing uncertainty) on at least 1 factor was 477, accounting for 95.02%. Figure 2 shows the cultural identity of martial arts and the mean scores of each dimension. The total mean score of wushu cultural identity is 3.71, and the size of the mean score of each factor is in the order of wushu cultural value judgment (3.88) > wushu cultural emotional engagement (3.62) > wushu cultural identity confirmation (3.33) > wushu cultural behavioral involvement (3.22). The results of the above study show that the overall level of martial arts cultural identity of secondary school students is good, but we should pay attention to the two aspects in which the performance of individuals is relatively poor, i.e., the confirmation of martial arts cultural identity and behavioral involvement in martial arts culture, and take this as a breakthrough to improve their overall martial arts cultural identity.

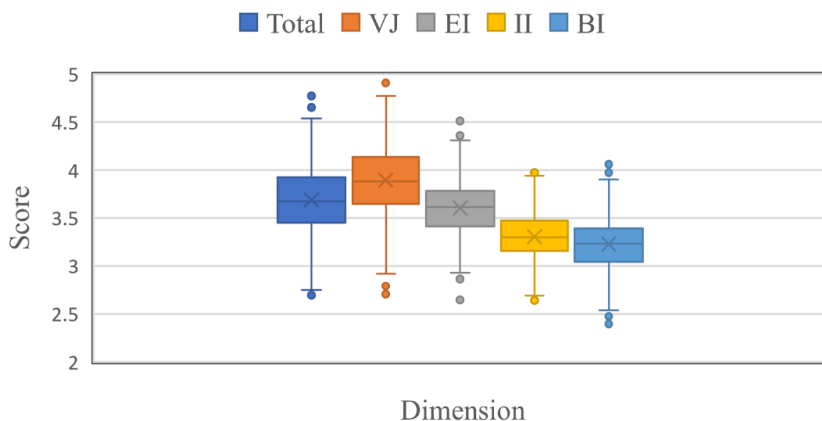


Figure 2: The average score of martial arts cultural identity and dimensions

3.2.2 Characterization of changes in students' cultural identity in martial arts

A 6 (grade) × 6 (gender) two-way ANOVA was conducted with the total score and scores on each dimension of the Wushu Cultural Identity Scale as the dependent variable and grade and gender as the independent variables. Table 3 shows the two-way ANOVA for grade level and gender on the total scale score and dimensions. The main effects of grade and gender partially reached the level of significance on the total scores and dimensions of the scale, but the interaction of the two did not reach the level of significance on the total scores and dimensions of the scale. The above results suggest the need for post hoc testing of the main effects of grade and gender.

Table 3: Two factor variance analysis

Variable	Variation source	Sum of squares	Freedom	Mean square	F
Cultural identity	Grade	22335.22	5	4455.68	7.11**
	Sex	1988.34	1	1948.44	3.12
	Grade×Sex	601.45	5	122.14	0.94
Value judgment	Grade	4243.88	5	822.58	11.78**
	Sex	1.22	1	1.22	0.01
	Grade×Sex	68.15	5	12.68	0.15
Emotional input	Grade	2288.36	5	456.67	8.11**
	Sex	522.56	1	541.44	9.35**
	Grade×Sex	50.88	5	10.35	0.16
Behavior involvement	Grade	688.78	5	141.52	2.98*
	Sex	488.45	1	455.68	10.22**
	Grade×Sex	223.25	5	43.14	0.95
Identification	Grade	388.45	5	76.82	2.22
	Sex	3.35	1	3.33	0.08
	Grade×Sex	151.66	5	28.79	0.83

Firstly, post hoc tests were conducted on the main effects of grade level, and the results showed that:

(1) In terms of the total score of martial arts cultural identity and martial arts cultural value judgment, the first grade scored the highest, followed by the junior to senior grades, the second grade scored the lowest and the difference reached the level of significance, and the difference among the grades of junior to senior grades did not reach the level of significance, and the trend

of the change is shown in Figure 3 and Figure 4. The above results suggest that the overall performance of middle school students' cultural identity and value judgment of wushu culture showed a decreasing trend from the first to the second grades, followed by an increasing trend, but this increasing trend stagnated after the third grade, and although there were ups and downs in the development of the high school grades, the ups and downs did not show any differential changes.

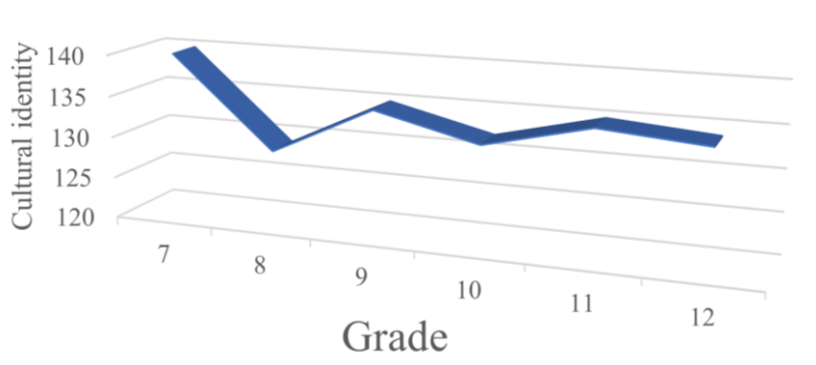


Figure 3: The cultural identity of wushu is characterized by different grades

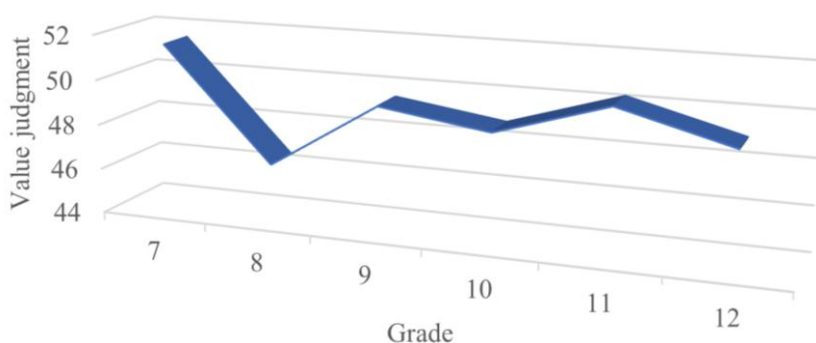


Figure 4: The characteristics of the cultural value of martial arts in different grades

(2) In terms of the emotional engagement in martial arts culture, the difference between the first and third years of junior high school > the first year of high school > the second year of junior high school has reached the level of significance, while the difference between the first and third years of junior high school, and between the third year of junior high school and the second year of high school has not reached the level of significance. The differences between the three grades of high school did not reach the level of significance, but they were higher than the second grade and lower than the first grade, and the differences reached the level of significance, and the trend of change is shown in Fig. 5, which suggests that secondary school students' cultural and emotional commitment to wushu showed a more pronounced ups and downs from the first grade to the first grade, i.e., down - up - down, and the subsequent stages also showed ups and downs. Although there are also ups and downs in the subsequent stages, the difference of this change is not significant.

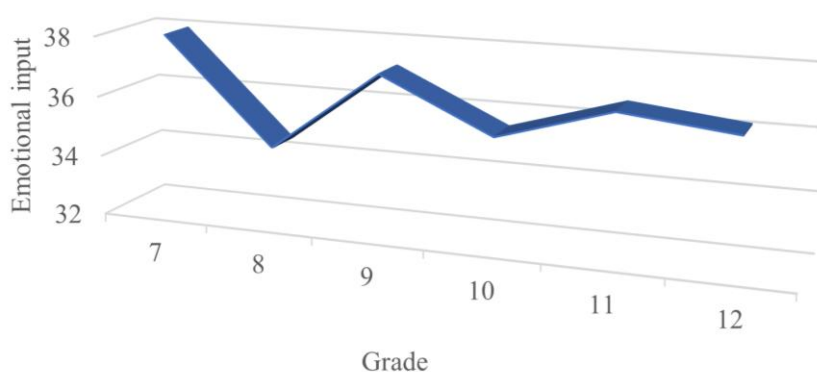


Figure 5: The cultural emotions of wushu are invested in different grades

(3) Compared with the first three characteristics of change in middle school students' cultural behavioral involvement in martial arts has a certain uniqueness, and the characteristics of the change in cultural behavioral involvement in martial arts in different grades are shown in Fig. 6, i.e., the first year of junior high school, senior high school > second year of junior high school, third year of junior high school, first year of senior high school, sophomore year of senior high school and the difference reaches a level of significance, while the difference between the first year of junior high school and the third year of senior high school, and the difference between the first year of junior high school and sophomore year of senior high school did not reach the significance level.

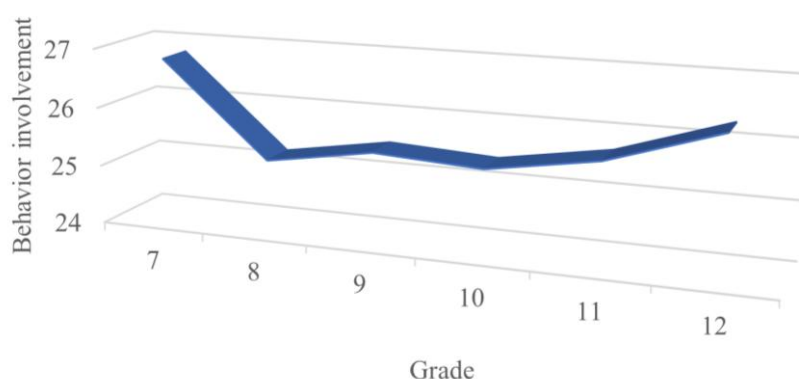


Figure 6: The cultural behavior of martial arts is involved in different grades

Secondly, a post hoc test of the gender main effect was conducted, and the results showed that on the scores of the two dimensions of emotional engagement and behavioral involvement in martial arts culture, the scores of male students were slightly higher than those of female students and the difference reached the level of significance, indicating that male students' performance was more positive.

3.3 Potential profiling of students' cultural identity in martial arts

In this study, students' Chinese excellent traditional wushu cultural identity was extracted from 1~4 categories for potential profile analysis respectively, and the results of potential profile analysis fitting information of students' Chinese excellent traditional wushu cultural identity are shown in Table 4. Note: K is the number of freely estimated parameters, the type of students' Chinese excellent traditional wushu cultural identity when divided into 3 categories P (LMR) and P (BLRT) are significant, but when divided into 4 categories, P (LMR) and P (BLRT) are

not significant. Relative to 2 categories, the AIC coefficients and BIC coefficients decreased and the Entropy value was greater than 0.92 when students' Chinese excellent traditional wushu cultural identity was categorized into 3 categories. Therefore, in this study, 3 categories (C1, C2, and C3) were used as the optimal model for the typing of students' Chinese excellent traditional wushu cultural identity. Based on the results of potential category classification, the scores of the 3 categories on the 38 entries of the students' Chinese Excellent Traditional Wushu Cultural Identity Scale were plotted, and the different subtypes of Chinese Excellent Traditional Wushu Cultural Identity are shown in Figure 7.

As shown in the figure, the scores of the three potential categories on the 38 entries of students' cultural identity of Chinese excellent traditional martial arts differed significantly and presented different characteristics. The C1 category scored lower than C2 on each entry, and 126 students in the sample, or 25.10%, belonged to this category, which was named “low cultural identity” based on the characteristics of their scores. The C3 category scored significantly higher than C2 and C1 on each entry, and there were better students' cultural identity of Chinese excellent traditional martial arts. 144 students in the sample belonged to this category, accounting for 28.69% of the sample, so this category was named “high cultural identity type”. The C2 category scored higher than C1 and lower than C3 on each item, and was in between C1 and C3. 232 students in the sample belonged to this category, accounting for 46.21% of the sample, and based on the scoring characteristics of this category, it was named “Chinese Cultural Identity Type”.

Table 4: The potential profile analyzes the fitting information

Model	C1	C2	C3	C4
K	42	65	80	101
Log(L)	-5025.858	-4255.651	-4088.568	-3986.411
AIC	10115.888	8666.333	8291.579	8281.808
BIC	10262.615	8859.747	8771.484	8551.336
aBIC	10141.859	8681.485	8332.198	8215.228
Entropy		0.921	0.931	0.931
P(LMR)		0.00	0.02	0.45
P(BLRT)		0.00	0.00	0.00
Probability		0.625/0.369	0.262/0.444/0.288	0.224/0.433/0.285/0.071

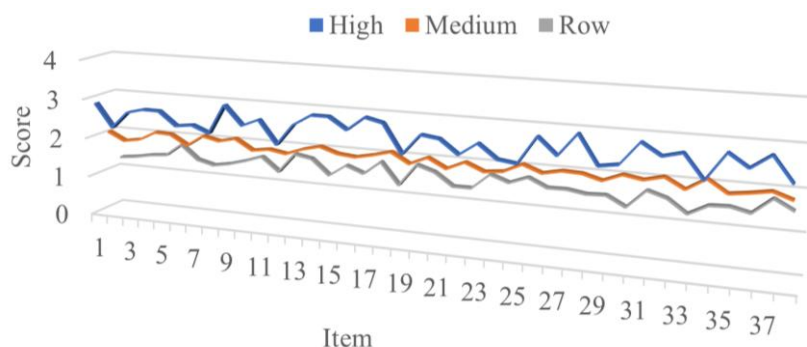


Figure 7: Different subtypes of martial arts cultural identity

R3step method is used to "cultural identity" and "high-cultural identity" type two categories as the dependent variable, including low "cultural identity" as the control group, with self-efficacy, wushu exercise time, gender (m = 1, f = 2), age, grade, the communist youth league, subject categories (liberal arts = 1, Science = 2), and school type as the independent variable

for multiple logistic regression analysis. Table 5 presents the logistic regression for the potential category predictions of cultural identity based on various factors. It was found that gender (male = 1, female = 2), self-efficacy, Communist Youth League member, and subject category (liberal arts = 1, science = 2) were helpful in predicting the category group of students' sense of identity with excellent traditional Chinese martial arts culture, while other variables had no significant effect on the latent category group of students' cultural identity. Other variables have no significant impact on the latent category grouping of students' cultural identity. Among them, self-efficacy and Communist Youth League membership have a positive correlation with "high cultural identity type" students. In addition, compared with "low cultural identity type", male students are more likely to exhibit "high cultural identity type"; compared with "low cultural identity type", science students are more likely to exhibit "high cultural identity type", while liberal arts students are more likely to exhibit "low cultural identity type". Note: The "low cultural identity type" is set as the reference category, and the b parameter is redundant, so it is set to zero.

Table 5: Logistic regression of potential categories of factors

Variable	Medium cultural identity				High cultural identity			
	Partial regression	Standard error	OR (95% CI)	P	Partial regression	Standard error	OR (95% CI)	P
Self-efficacy	0.205	0.111	1.225 (0.991~1.552)	0.055	0.622	0.132	1.859 (1.422~2.518)	0.000
Martial arts time	0.001	0.088	1.005 (0.821~1.211)	0.981	0.168	0.118	1.156 (0.925~1.521)	0.121
Male	0.755	0.386	2.156 (1.009~4.539)	0.044	1.131	0.501	3.015 (1.144~8.239)	0.025
Female	0b							
Age	-0.266	0.244	0.777 (0.439~1.259)	0.269	0.055	0.322	1.068 (0.521~1.953)	0.811
Grade	-0.38	0.351	0.999 (0.485~1.882)	0.921	-0.208	0.456	0.858 (0.339~2.182)	0.668
League member	0.388	0.338	1.488 (0.758~2.857)	0.265	0.999	0.438	2.722 (0.758~2.857)	0.021
Liberal arts	-0.395	0.369	0.655 (0.333~1.453)	0.305	-1.305	0.499	0.268 (1.142~6.532)	0.005
Science	0b							
School type	0.045	0.175	1.058 (0.752~1.481)	0.822	0.311	0.222	1.311 (0.855~2.188)	0.181

4 Conclusion

This study introduces the concept of OBE, a preliminary attempt to carry out the construction of Wushu curriculum ideology and politics on campus, and expects more scholars to study and discover the elements of Chinese excellent traditional culture in this field, improve the construction of curriculum ideology and politics, and make suggestions for the implementation of the fundamental task of establishing morality and educating people.

Taking 530 students in six grades from junior to junior high school and senior high school in A and B schools as an example, the total average score of wushu cultural identity is 3.71, and the average scores of each factor are in the order of wushu cultural value judgment (3.88), wushu cultural emotional commitment (3.62), wushu cultural identity confirmation (3.33), and wushu cultural behavioral involvement (3.22), which means that the schools need to take wushu

cultural identity confirmation and behavioral involvement as a breakthrough point. Confirmation and Behavioral Involvement as a breakthrough point to enhance their overall wushu cultural identity. The scores of male students were slightly higher than those of female students in the dimensions of emotional engagement and behavioral involvement in wushu culture and the difference reached the significance level, indicating that male students were more active in the performance of wushu culture.

Wushu cultural identity types were explored through latent profile analysis, and there were three types of tested students: low cultural identity types, medium cultural identity types, and high cultural identity types. There were significant differences in scores and trends across groups on each type, indicating the heterogeneity of this student population. Self-efficacy and membership in the Youth League were positively associated with the “high cultural identity” students. In addition, males and science students were more likely to be “high cultural identity” than “low cultural identity” students.

Improving the quality of the martial arts curriculum and preserving the legacy of traditional martial arts, which carries countless histories and cultures, is something that every young person should consider, and it is also a great opportunity to take on the work of educational curriculum reform and build a traditional martial arts curriculum.

About the Author

Xue Wang was born in Fuyang City, Anhui Province, China in 1992. She graduated from University of Baguio in the Philippines and obtained a doctoral degree. Currently, she works at Zhejiang Yuexiu University. Her research interests include physical education teaching, martial arts and related content of Tai Chi.

Antonio D Mangaliag is a graduate of Doctor of Philosophy major in Developmental Education at the University of Baguio in the Philippines. He is a graduate school professor and Dean of Graduate School principal at the University of Baguio. His research interests include curriculum development, evaluation and assessment, active learning strategies, teacher training program, and professional learning community.

Yuyi Ye, Professional: National-level social sports instructor; Self-Assessment: Be competent for the teaching work of physical education major; Academic Achievements: Thesis Category: 1. Independent author, published the paper "Development Characteristics and Enlightenment Research of Football Town in Hezhou Guangxi" in "Computer Enthusiast (Electronic Journal)", Issue 3, 2020. 2. Independent author, published the paper Research on the Construction Value and Development Strategy of Football Town under the Perspective of Industrial Integration" in "Computer Enthusiast (Popular Edition) (Electronic Journal)" Issue 5, 2020. 3. Independent author, published the paper "Research on the Reform and Innovation Path of University Football under the New Curriculum Standards in "Total Sports", Issue 17, 2020. 4. Independent author, published the paper "Analysis of the Current Situation and Countermeasures of Campus Football Culture Communication under the Background of the Belt and Road" in "Computer Enthusiast (Popular Edition) (Electronic Journal)", Issue 1, 2021. 5. Independent author, published the paper "Research on the Industrialization of Football Economy and the Construction of Campus Football" in "Total Sports, Issue 22, 2021. 6. Independent author, published the paper "Research on the Construction and Operation System of Football Town in Hezhou City in "Computer Enthusiast (Popular Edition) (Electronic Journal)", Issue 4, 2022.

References

- [1] Chen, S., & Lin, N. (2021). Culture, productivity and competitiveness: disentangling the concepts. *Cross Cultural & Strategic Management*, 28(1), 52-75.
- [2] Theeboom, M., Zhu, D., & Vertonghen, J. (2017). ‘Wushu belongs to the world’. But the gold goes to China...: the international development of the Chinese martial arts. *International review for the sociology of sport*, 52(1), 3-23.
- [3] Lin, Z., & Tsai, W. H. (2022). Contemporary Chinese martial arts and the manipulation of cultural positioning. *Journal of Contemporary East Asia Studies*, 11(1), 107-123.
- [4] Chen, Y. (2021). The development trend of martial arts industry in the new era. *Frontiers in Sport Research*, 3(4), 62-65.
- [5] Zhao, Y. (2021). The deconstruction and reinterpretation of martial arts cultural identity from the perspective of intergenerational conflict. *Front. Sport Res*, 3, 56-59.
- [6] Cao, X., & Lyu, H. (2024). Motivational drivers and Sense of Belonging: unpacking the persistence in Chinese Martial Arts practice among international practitioners. *Frontiers in Psychology*, 15, 1403327.
- [7] Xing, C., Aman, M. S., & Zainal Abidin, N. E. (2024). Inheriting Chinese Traditional Sports: An Integrated Model for Promoting Emei Martial Arts Development. *Revista de Psicología del Deporte (Journal of Sport Psychology)*, 33(2), 419-432.
- [8] Xue, S., Ji, H., Yang, J., Zhao, L., & Su, X. (2025). Implementing martial arts education in Chinese schools: teachers' perspectives on the school martial arts program. *Frontiers in Sports and Active Living*, 7, 1699131.
- [9] Miao, F., & Qiang, Z. (2025, June). The living heritage of cangzhou martial arts and its contribution to chinese cultural identity through transmission and exchange. In *Of Papers Presented at 2025 6th Asia Sport Science Conference (ASSC)*.
- [10] Cheng, Y., & Guo, N. (2024). An ethnography of construction and characteristics of curriculum for inheritance of intangible cultural heritage martial arts in universities. *Frontiers in sports and active living*, 6, 1395128.
- [11] Yu, L., & Mantuhac, I. H. P. B. (2024). Martial arts in physical education and student self-regulation. *International Journal of Education and Humanities*, 16(3), 316-321.
- [12] Xiang, J. (2024). The Inheritance and Development of Traditional Martial Arts Culture in Physical Education in the New Era. *Journal of Art, Culture and Philosophical Studies*, 1(2).
- [13] Zhang, Y. (2024). The strategy of integrating traditional martial arts and modern physical education teaching. *Frontiers in Sport Research*, 6(5), 14.
- [14] Zhou, X., Dai, F., & Wang, L. (2025, May). A Study on the Optimisation of Public Physical Education Martial Arts Course Syllabus in Private Universities Based on the Outcome-Based Education——Take Wuchang Institute of Technology as an Example. In

2nd International Conference on Educational Development and Social Sciences (EDSS 2025) (pp. 74-85). Atlantis Press.

- [15] Bai, Z. G. (2017). Wushu teaching strategy and development in urban and rural schools. *Eurasia Journal of Mathematics, Science and Technology Education*, 13(12), 7791-7797.
- [16] Jia, Y., Theeboom, M., & Dong, Z. (2020). Teaching traditional Chinese martial arts to contemporary Chinese youth—a qualitative study with youth wushu coaches in China. *Archives of budo*, 16, 1-10.
- [17] Liu, S., Nirantranon, W., & Hongsaenyatham, P. (2023). The Development of Physical Education Curriculum Martial Arts Sports for the Nine Years Compulsory Education Stage of Guangdong Province. *Online Submission*, 3(5), 31-44.