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Exploring Bilingual Education in the Wenzhou Region Under the CLIL Teaching Philosophy

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Abstract: This study addresses the cultural identity and educational transition challenges faced by the “overseas Chinese children” (Qiao Tong) group in Wenzhou. Utilizing the CLIL (Content and Language Integrated Learning) teaching model, it explores an innovative pathway for patriotic education that uses bilingualism as a bridge and local culture as its foundation. Through the compilation of school-based teaching materials and practical teaching implementation, this research employs case study and questionnaire survey methods to systematically examine the application effectiveness of the CLIL model. Empirical results indicate that CLIL-based bilingual courses can significantly enhance students’ sense of cultural identity. The study confirms that systematic, guided CLIL instruction is an effective approach to constructing cultural identity for overseas Chinese children, offering a replicable “Wenzhou Experience” for educational governance in hometowns of overseas Chinese and for “telling China’s story well”.

Keywords: overseas Chinese children in Wenzhou; CLIL; cultural identity; bilingual patriotic education

1. Introduction

“Where there is sunshine, there are Wenzhou people”. Wenzhou is one of China’s most renowned hometowns of overseas Chinese. According to surveys, there are currently 688,000 overseas Chinese and individuals of Chinese descent from Wenzhou, accounting for over one-third of Zhejiang Province’s total and ranking sixth nationally (Wenzhou Municipal Federation of Social Sciences, 2023). Wenzhou’s overseas Chinese have been an indispensable force in shaping the “Wenzhou Model”. However, this vast emigrant population has also given rise to a critical social issue: their children, whether accompanying them abroad or returning to China, face severe challenges in reconstructing cultural identity and integrating into the domestic education system upon returning to their hometown. These “overseas Chinese children” commonly encounter difficulties such as insufficient Chinese proficiency, cultural barriers with local society, and crises of identity when reintegrating into local education. In addition, Chinese adolescent overseas generally have a low level of awareness of traditional Chinese culture, and existing bilingual readers on Chinese culture often neglect readability and adaptation to the target audience, which provides a realistic background and research direction for this study (Su et al., 2024).

In response, this study, leveraging the disciplinary and talent advantages of the School of Foreign Languages at Wenzhou University, formed a dedicated practice team. It aims to explore an innovative pathway for bilingual patriotic education using “bilingualism” as a bridge and “local culture” as its foundation. The core strengths of our team lie in: first, utilizing professional bilingual capabilities to accurately address the cross-cultural cognitive structures of overseas Chinese children, facilitating the translation and effective delivery of educational content between Chinese and Western contexts; second, relying on a team of pre-service teachers equipped with systematic knowledge in pedagogy, psychology, and practical teaching skills, ensuring the scientific rigor and professionalism of the educational intervention. By developing distinctive local culture teaching materials and conducting in-depth



practices in Wenzhou’s primary and secondary schools and communities, this research is committed to enhancing the language abilities of overseas Chinese children while solidifying their national identity and cultural confidence, providing valuable practical experience and theoretical reference from Wenzhou for educational governance in hometowns of overseas Chinese and grassroots practices of “telling China’s story well”.

The Content and Language Integrated Learning (CLIL) model, which uses a foreign language as the medium for learning subject content, integrates content and language learning as complementary components. Its core 4Cs framework (Content, Communication, Cognition, Culture) and theme-oriented 6T Approach have demonstrated broad applicability in language and culture integration teaching, and offer a promising theoretical framework for addressing the educational dilemmas of overseas Chinese children (Coyle et al., 2010; Li, 2018). Based on this, this study focuses on two core research questions:

- (1) How can effective bilingual patriotic education content be systematically designed and implemented for overseas Chinese children based on the CLIL model?
- (2) What practical effects do CLIL teaching practices have on enhancing the cultural confidence and national identity of overseas Chinese children?

2. Methods

This study adopted a mixed-methods research design combining qualitative case study and quantitative questionnaire survey to explore the application and effectiveness of the CLIL teaching philosophy in bilingual education for Wenzhou’s overseas Chinese children. All research procedures were designed to ensure replicability, with detailed descriptions of research participants, instruments, procedures, and data analysis methods provided below. Relevant teaching materials, questionnaire data, and analysis protocols are available for access by readers upon publication, with no restrictions on material availability.

2.1. Research Participants

Convenience sampling was used to select junior high school overseas Chinese children in Wenzhou as research subjects, with inclusion criteria: (1) being children of Wenzhou overseas Chinese or transnational left-behind children; (2) having experiences of cross-cultural living or education transition. A total of 72 valid respondents were included in the final sample (no invalid questionnaires were excluded), with a roughly balanced distribution of Grade 1 and Grade 2 junior high students ($M = 1.49$, $SD = 0.503$). The sample was divided into an experimental group ($n = 37$, students who participated in the CLIL-based bilingual course designed by the research team) and a control group ($n = 35$, students who did not participate in the course), ensuring the equivalence of the two groups for between-group comparison (course participation $M = 1.49$, $SD = 0.503$). Descriptive statistics showed the student group had a relatively low overall familiarity with Wenzhou cuisine ($M = 2.42$, $SD = 0.868$) on a 5-point scale, indicating the necessity of local culture-themed teaching.

2.2. Research Instruments and Materials

2.2.1. CLIL-Based School-Based Bilingual Teaching Materials

Through a continuous “practice-reflection-refinement” cycle, the research team compiled a set of systematic school-based bilingual teaching materials rooted in Chinese traditional culture and Wenzhou local culture, with bilingualism as the carrier. The materials were developed by pre-service teachers during periodic teaching practices, with high-quality courseware and content resources collected, organized, and refined at the end of each semester. The main completed teaching materials include: Performing Chinese Mythological Stories in English, Performing Chinese Idiom Stories in English, Cultural Reader (Reading Exercise Book), Folk Tales, and Wenzhou Intangible Cultural Heritage Reader. The research team further expanded the teaching themes to include Wenzhou cuisine and Wenzhou celebrities, forming a multi-level, systematic teaching content repository.

2.2.2. Cultural Identity Questionnaire

A self-designed 5-point Likert scale questionnaire (1 = strongly disagree, 5 = strongly agree) was used to measure students’ cultural confidence and national identity (collectively referred to as “cultural identity”). The scale consisted of 8 items, with representative items including “I am proud of Wenzhou’s traditional culture” and “I am willing to introduce Wenzhou cuisine to others”. The Cultural Identity Total Score (theoretical range: 8–40 points) was calculated by summing the scores of all items to reflect the overall level of students’ cultural identity, which served as the dependent variable for subsequent statistical analysis.

Psychometric tests verified the reliability and validity of the questionnaire:

Reliability: Cronbach's Alpha coefficient of the 8 items was 0.872, indicating "very good" internal consistency (Nunnally & Bernstein, 1994).

Validity: Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was 0.804 (meritorious for factor analysis; Kaiser, 1974), and Bartlett's Test of Sphericity was extremely significant ($\chi^2 = 285.229$, $df = 28$, $p < 0.001$), confirming good construct validity and suitability for factor analysis.

2.2.3. Representative Teaching Case

The lesson Wenzhou Glutinous Rice (Junior High Edition) was selected as the core qualitative case study sample for its high representativeness. The instructional design fully embodies the CLIL 4Cs framework: Content rooted in Wenzhou's local food culture, Communication integrating Chinese-English bilingual classroom tasks, Cognition designing a thinking ladder from understanding to evaluation, and Culture stimulating students' identification with local culture and Chinese civilization.

2.3. Research Procedures

2.3.1. CLIL-Based Bilingual Teaching Practice Implementation

The teaching practice was conducted by the research team (pre-service teachers from the School of Foreign Languages, Wenzhou University) in local junior high schools, strictly following the CLIL 4Cs framework and theme-oriented 6T Approach. The implementation of the representative case Wenzhou Glutinous Rice (Junior High Edition) included four progressive steps:

(1) Authentic Context Introduction: The teacher displayed global breakfast pictures and conducted bilingual Q&A to activate students' prior cultural background knowledge and introduce the core theme.

(2) Knowledge and Vocabulary Acquisition: Students watched an English-subtitled video on making glutinous rice, matched ingredient pictures with English words, and collaboratively completed an "ingredient list" poster using the sentence pattern "It has...".

(3) Cultural Cognition Deepening: Students read an authentic English narrative text Taste of home and analyzed the protagonist's emotional changes, linking text content to personal experiences of hometown and food.

(4) Creative Language Output: Students worked in groups to complete either an English menu design for a "Wenzhou Breakfast Shop" or a short English recommendation video for glutinous rice, integrating learned language and content knowledge.

2.3.2. Questionnaire Survey Administration

After the completion of the CLIL-based bilingual teaching practice, the cultural identity questionnaire was distributed to participants in a paper-based format. The survey was administered under the guidance of professional researchers to ensure students accurately understood all items. Questionnaires were collected on the spot, and no invalid questionnaires (incomplete answers, random selection) were found, resulting in an effective recovery rate of 100%.

2.3.3. Data Collection

Two types of data were collected for this study:

(1) Qualitative data: Instructional design schemes, teaching activity records, courseware resources, and reflective notes of the CLIL-based bilingual teaching case (Wenzhou Glutinous Rice).

(2) Quantitative data: Score data of the 72 valid questionnaires on the 8-item cultural identity scale, including individual item scores and the Cultural Identity Total Score.

All quantitative data were coded and entered into SPSS 26.0 for statistical analysis, with double data entry to ensure accuracy and integrity.

2.4. Data Analysis Methods

2.4.1. Qualitative Case Analysis

The representative teaching case Wenzhou Glutinous Rice (Junior High Edition) was analyzed using a deductive approach, focusing on how the instructional design integrates the core principles of the CLIL model (Content-Communication-Cognition-Culture integration, authentic context construction, interactive cultural exploration). The analysis further explored the implementation path and practical effect of CLIL-based bilingual teaching with local culture as the carrier for overseas Chinese children.

2.4.2. Quantitative Statistical Analysis

All quantitative data were analyzed using SPSS 26.0, with the following statistical methods applied in accordance with well-established academic standards (Cohen, 1988; Spector, 1992):

(1) Descriptive statistics: To analyze the basic distribution characteristics of the sample (grade, course participation, exposure to Wenzhou cuisine) and the overall level of students' cultural identity.

(2) Independent Samples T-test: To compare the significant difference in Cultural Identity Total Scores between the experimental group (participated in the CLIL course) and the control group (did not participate), with Levene's Test for Equality of Variances to verify the homogeneity of variances assumption.

(3) Analysis of Variance (ANOVA): Two-way ANOVA to examine the interaction effect of course participation and prior cultural exposure (exposure to Wenzhou cuisine) on cultural identity; one-way ANOVA to analyze the influence of grade level and prior cultural exposure on cultural identity.

(4) Correlation analysis: Pearson correlation analysis to explore the linear correlation between prior exposure to Wenzhou cuisine and students' Cultural Identity Total Score.

(5) Effect size calculation: Cohen's *d* value was calculated to assess the practical significance of group differences, with reference to Cohen's (1988) classification criteria (0.2 = small, 0.5 = medium, 0.8 = large).

3. Results

This section presents the qualitative analysis results of the CLIL-based teaching case and the quantitative statistical results of the questionnaire survey, answering the two core research questions of the study. All tables are cited in numerical order and placed in the text near their first reference, with no duplicate information between tables and text.

3.1. Qualitative Results of the CLIL Teaching Case Analysis

The instructional design of Wenzhou Glutinous Rice (Junior High Edition) successfully integrated the CLIL 4Cs framework and 6T Approach, achieving deep integration of language learning, content acquisition, cognitive development, and cultural identity construction. Each teaching step was closely aligned with CLIL core principles, forming a progressive and coherent learning process:

(1) Step 1 (Context Introduction): Bilingual Q&A on breakfast culture created an authentic learning context, activating students' prior knowledge and reducing language anxiety, while naturally introducing the core local culture content. This step embodied the CLIL principle of constructing cognition in authentic contexts (Bai, 2025).

(2) Step 2 (Knowledge Acquisition): Vocabulary such as glutinous rice and crispy fried dough became essential tools for completing the ingredient list task, rather than objects of rote memorization. This reflected the CLIL core idea that subject content provides specific context and intrinsic motivation for language learning (Zhang, 2020).

(3) Step 3 (Cultural Cognition): The English narrative text Taste of home integrated language learning (reading comprehension, emotional expression) with cultural immersion, guiding students to analyze how food transcends daily sustenance to become a cultural symbol of nostalgia. This step realized a cognitive leap from understanding to internalization of cultural identity.

(4) Step 4 (Creative Output): Group tasks (English menu design, recommendation video recording) created an authentic problem-solving scenario, requiring students to integrate learned language and content knowledge. English here served as a communicative tool for telling hometown stories, forging students' sense of accomplishment in cultural inheritance and dissemination (Wang et al., 2021).

In summary, the teaching case constructed a replicable CLIL-based bilingual teaching paradigm for overseas Chinese children, with local culture as the core content and bilingualism as the medium, providing a concrete operable answer to the first research question of the study.

3.2. Quantitative Results of the Questionnaire Survey

3.2.1. Descriptive Statistical Results

Descriptive analysis of the 72 valid samples (Table 1) showed a balanced distribution of grade level ($M = 1.49$, $SD = 0.503$) and course participation ($M = 1.49$, $SD = 0.503$), satisfying the principle of equivalent group design for experimental and control groups and avoiding potential bias from uneven sample distribution. The mean score of students' exposure to Wenzhou cuisine was 2.42 ($SD = 0.868$, 5-point scale), at the lower-middle level, indicating a relatively low overall familiarity with local food culture among the sample, which further confirmed the necessity of the local culture-themed CLIL teaching practice.

Table 1. Descriptive Analysis of the Sample (N = 72).

| | N | Min | Max | Mean | Standard Deviation |
|---|----|-----|-----|------|--------------------|
| Grade (1 = Grade 1, 2 = Grade 2) | 72 | 1 | 2 | 1.49 | 0.503 |
| Course Participation (1 = Yes, 2 = No) | 72 | 1 | 2 | 1.49 | 0.503 |
| Exposure to Wenzhou Cuisine (5-point scale) | 72 | 1 | 5 | 2.42 | 0.868 |

3.2.2. Group Difference in Cultural Identity

Group statistical analysis (Table 2) showed that students who participated in the CLIL-based bilingual course had a significantly higher Cultural Identity Total Score ($M = 23.84$, $SD = 5.08$) than those who did not ($M = 17.63$, $SD = 5.72$). Independent Samples T-test results (Table 3) indicated that the data met the homogeneity of variances assumption ($F = 0.490$, $p = 0.486$), and the group difference was extremely significant ($t(70) = 4.877$, $p < 0.001$). Effect size calculation (Table 4) showed a Cohen's d value of 1.14, which represents a very large effect size (Cohen, 1988), indicating that participation in the CLIL course had a substantial positive impact on students' cultural identity.

Table 2. Group Statistical Analysis of Cultural Identity Total Score (N = 72).

| | Have You Taken Our Bilingual Course? | N | Mean | Standard Deviation | Standard Error Mean |
|----------------------------------|--------------------------------------|----|-------|--------------------|---------------------|
| Total Score of Cultural Identity | 1 | 37 | 23.84 | 5.075 | 0.834 |
| | 2 | 35 | 17.63 | 5.724 | 0.968 |

Table 3. Independent Samples Test of Cultural Identity Total Score (N = 72).

| | | Levene's Test for Equality of Variances | | t-Test for Equality of Means | | | | | | |
|----------------------------------|-----------------------------|---|-------|------------------------------|--------|-------------------|-----------------|-----------------------|-------------------------|-------|
| | | F | Sig. | t | df | Sig. (Two-Tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval | |
| | | | | | | | | Lower | Upper | |
| Total score of cultural identity | Equal variances assumed | 0.490 | 0.486 | 4.877 | 70 | 0.000 | 6.209 | 1.273 | 3.670 | 8.749 |
| | Equal variances not assumed | | | 4.860 | 67.900 | 0.000 | 6.209 | 1.278 | 3.660 | 8.759 |

Table 4. Independent Samples Effect Sizes of Cultural Identity Total Score (N = 72).

| | | Standardized Measure ^a | Point Estimate | 95% Confidence Interval | |
|----------------------------------|--------------------|-----------------------------------|----------------|-------------------------|-------|
| | | | | Lower | Upper |
| Total score of Cultural Identity | Cohen d | 5.400 | 1.150 | 0.647 | 1.646 |
| | Hedges' Correction | 5.459 | 1.137 | 0.640 | 1.628 |
| | Glass's Delta | 5.724 | 1.085 | 0.550 | 1.607 |

Note: ^a Standardized effect size measures for the independent samples test.

3.2.3. Interaction Effect of Course Participation and Cultural Exposure

Two-way ANOVA results (Table 5) showed a significant interaction effect between course participation and prior exposure to Wenzhou cuisine on cultural identity ($F(2,64) = 3.27$, $p = 0.044$). This indicates that the enhancing effect of the CLIL-based bilingual course on cultural identity is not uniform across all students, but is moderated by students' existing cultural background knowledge, requiring further simple effect analysis to reveal the specific impact pattern.

Table 5. Tests of Between-Subjects Effects (Dependent Variable: Cultural Identity Total Score).

| Source | | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|--------------|-------------------------|--------|---------------------|---------|-------|
| Intercept | Hypothesized | 10078.776 | 1 | 10078.776 | 317.177 | 0.000 |
| | Error | 582.424 | 18.329 | 31.776 ^a | | |
| 2. Have you taken our bilingual course? | Hypothesized | 589.261 | 1 | 589.261 | 7.327 | 0.103 |
| | Error | 175.997 | 2.189 | 80.419 ^b | | |
| 3. Have you tried Wenzhou cuisine before? | Hypothesized | 122.254 | 4 | 30.563 | 0.479 | 0.755 |
| | Error | 185.184 | 2.905 | 63.741 ^c | | |
| 2. Have you taken our bilingual course? | Hypothesized | 176.929 | 2 | 88.464 | 3.270 | 0.044 |
| * 3. Have you tried Wenzhou cuisine before? | Error | 1731.265 | 64 | 27.051 ^d | | |

Notes: Superscript letters a, b, c, d refer to the degrees of freedom (*df*) of the respective error terms. The asterisk (*) indicates the interaction effect between “Have you taken our bilingual course?” and “Have you tried Wenzhou cuisine before?”.

3.2.4. Influence of Grade and Cultural Exposure on Cultural Identity

One-way ANOVA results (Table 6) showed no significant difference in Cultural Identity Total Score between Grade 1 and Grade 2 junior high students ($F(1,70) = 0.675, p = 0.414$), with a weak effect size ($\eta^2 = 0.01$), indicating that grade level is not a primary factor influencing students’ cultural identity. Additionally, differences in Cultural Identity Total Score among student groups with different levels of prior exposure to Wenzhou cuisine did not reach statistical significance ($F(4,67) = 1.595, p = 0.186$), despite the “very familiar” group having the highest mean score ($M = 27.00$), which should be viewed cautiously due to its small sample size ($n = 2$).

Table 6. One-Way ANOVA of Cultural Identity Total Score by Grade and Cultural Exposure ($N = 72$).

| | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---------------------------|----------------|----|-------------|-------|-------|
| Total Score of Cultural Identity * | Between Groups (Combined) | 26.134 | 1 | 26.134 | 0.675 | 0.414 |
| | Within Groups | 2708.519 | 70 | 38.693 | | |
| | Total | 2734.653 | 71 | | | |
| Total Score of Cultural Identity * 3. Have you tried Wenzhou cuisine before? | Between Groups (Combined) | 237.802 | 4 | 59.450 | 1.595 | 0.186 |
| | Within Groups | 2496.851 | 67 | 37.266 | | |
| | Total | 2734.653 | 71 | | | |

Note: * Indicates one-way ANOVA tests of cultural identity total score by grade and by exposure to Wenzhou cuisine, separately.

3.2.5. Correlation Between Cultural Exposure and Cultural Identity

Pearson correlation analysis results (Table 7) showed a non-significant weak positive correlation between students’ prior exposure to Wenzhou cuisine and their Cultural Identity Total Score ($r = 0.153, p = 0.200$), further confirming that passive exposure to local culture does not directly lead to the construction of deep cultural identity.

Table 7. Pearson Correlation Between Cultural Exposure and Cultural Identity Total Score ($N = 72$).

| | | Total Score of Cultural Identity | 3. Have You Tried Wenzhou Cuisine before? |
|---|---------------------|----------------------------------|---|
| Total Score of Cultural Identity | Pearson Correlation | 1 | 0.153 |
| | Sig. (Two-tailed) | | 0.200 |
| | N | 72 | 72 |
| 3. Have you tried Wenzhou cuisine before? | Pearson Correlation | 0.153 | 1 |
| | Sig. (Two-tailed) | 0.200 | |
| | N | 72 | 72 |

4. Discussion

This study systematically explored the application and effectiveness of the CLIL teaching philosophy in bilingual patriotic education for Wenzhou’s overseas Chinese children through a mixed-methods design, with both qualitative and quantitative results providing robust evidence for the research questions. The core findings confirm that CLIL-based bilingual education with local culture as the core is an effective approach to addressing the cultural identity predicament of overseas Chinese children, and further reveal the key factors influencing the construction of their cultural identity, with important theoretical and practical implications.

First, the qualitative analysis of the Wenzhou Glutinous Rice teaching case demonstrates that the CLIL 4Cs framework and 6T Approach provide a highly operable theoretical guide for the design of bilingual education for overseas Chinese children. By taking local culture (e.g., Wenzhou food culture, intangible cultural heritage) as the core content, the teaching design transforms abstract cultural identity into concrete and perceptible learning content, making it easier for overseas Chinese children to connect with their own experiences and accept cultural connotations. The progressive teaching steps (context introduction → knowledge acquisition → cognition deepening → creative output) conform to the cognitive development law of junior high school students, and the integration of bilingual communication into the entire process realizes the dual goals of language ability improvement and cultural identity construction. This finding is consistent with previous research (Coyle et al., 2010; Marsh, 2002), which confirmed that CLIL can effectively promote cultural understanding through interactive learning and construct cognition in authentic contexts.

Second, the quantitative results show that participation in the CLIL-based bilingual course has a significant and substantial positive impact on the cultural identity of overseas Chinese children (Cohen's $d = 1.14$, $p < 0.001$), which is the strongest predictor variable for enhancing cultural identity in this study. This finding answers the second core research question and verifies the effectiveness of the CLIL model in the specific context of overseas Chinese children's education. Unlike traditional foreign language teaching that focuses on linguistic form, CLIL-based bilingual education takes culture as the core and language as a tool for cultural communication, making language learning more meaningful and motivating. For overseas Chinese children facing cross-cultural adaptation challenges, this teaching model helps them build a connection between their bilingual ability and national cultural identity, and realize the shift from passive cultural acceptance to active cultural dissemination through creative output tasks (e.g., English menu design, hometown culture recommendation), which in turn solidifies their cultural confidence (Marsh, 2002).

Third, the study found a significant interaction effect between course participation and prior cultural exposure on cultural identity ($F(2,64) = 3.27$, $p = 0.044$), indicating that the effect of the CLIL course is moderated by students' existing cultural background knowledge. This suggests that educators should pay attention to individual differences in students' cultural exposure when promoting CLIL-based bilingual education, and provide differentiated teaching design and guidance for students with different levels of local culture knowledge. For example, for students with low cultural exposure, more basic local culture content can be added to the teaching to lay a foundation for subsequent cultural identity construction; for students with high cultural exposure, more in-depth cultural exploration and creative tasks can be designed to further enhance their cultural identity. This finding enriches the application research of the CLIL model and provides a more refined teaching suggestion for overseas Chinese children's education.

Fourth, the study found that grade level ($F(1,70) = 0.675$, $p = 0.414$) and passive exposure to local culture ($r = 0.153$, $p = 0.200$) have no significant correlation with cultural identity, which has important theoretical implications. This result indicates that profound cultural identity is not automatically formed with the growth of age or passive, fragmented cultural exposure, but needs to be actively constructed through guided, structured, systematic learning that triggers deep cognitive engagement. The CLIL model is an ideal pathway for achieving such systematic construction, as it integrates language learning, content acquisition, and cognitive development, and guides students to conduct in-depth exploration and reflection on culture through interactive and task-based learning activities. This finding also provides a response to the practical problem of low local culture familiarity among overseas Chinese children, suggesting that passive contact is not enough, and intentional and systematic cultural education is needed to enhance their cultural identity.

A notable limitation of this study is the insufficient exploration of the specific pattern of the interaction effect between course participation and cultural exposure, which requires further simple effect analysis in future research to clarify how the CLIL course affects students with different levels of cultural exposure. In addition, the study adopted a convenience sampling method with a relatively small sample size ($N = 72$), and the research results are mainly applicable to Wenzhou's overseas Chinese children; future research can expand the sample size and extend the research scope to other overseas Chinese hometowns in China to verify the generalizability of the "Wenzhou Experience". Furthermore, this study only conducted a cross-sectional survey, and future research can adopt a longitudinal design to track the long-term effect of CLIL-based bilingual education on the cultural identity of overseas Chinese children.

Despite these limitations, this study still has important theoretical and practical contributions. Theoretically, it enriches the application boundaries of the CLIL model by verifying its effectiveness in the specific context of overseas Chinese children's bilingual education, and reveals the key factors influencing the cultural identity construction of this special group. Practically, it constructs a replicable CLIL-based bilingual teaching paradigm with local culture as the core, and provides a concrete "Wenzhou Experience" for educational governance in

overseas Chinese hometowns and the grassroots practice of “telling China’s story well”. The developed local culture-themed school-based teaching materials and teaching design schemes can be used as a reference for other overseas Chinese hometowns to carry out bilingual education and cultural identity education.

5. Conclusions

This study explored the innovative pathway of CLIL-based bilingual patriotic education for Wenzhou’s overseas Chinese children using a mixed-methods design combining case study and questionnaire survey. The results confirm that the CLIL 4Cs framework and 6T Approach can effectively guide the design of bilingual education content with local culture as the core and bilingualism as the medium, achieving deep integration of language learning, content acquisition, cognitive development, and cultural identity construction. Participation in the CLIL-based bilingual course has a significant and substantial positive impact on the cultural identity of overseas Chinese children (very large effect size), which is the key factor for enhancing their cultural identity. The course effect is moderated by students’ prior cultural exposure, while grade level and passive cultural exposure show no significant correlation with cultural identity, indicating that cultural identity needs to be actively constructed through guided, systematic learning. Bilingual patriotic education guided by the CLIL philosophy and deeply integrated with local culture is an effective strategy for addressing the cultural identity predicament of overseas Chinese children and solidifying their national confidence. This study provides a replicable and scalable “Wenzhou Experience” for the educational governance of overseas Chinese hometowns in China and the grassroots practice of “telling China’s story well”, and enriches the theoretical and practical research on the CLIL model and overseas Chinese children’s education.

Author Contributions

Y.Z. contributed to conceptualization, methodology, supervision, and writing—review & editing; Y.S. was responsible for data curation, formal analysis, and investigation; P.S. provided resources, validation, and data interpretation; Y.Y. conducted literature review, data collection, and draft preparation; J.S. contributed to writing—original draft, visualization, and teaching practice implementation. All authors have read and approved the final version of the manuscript.

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Informed Consent Statement

Written informed consent was obtained from all minor participant’ legal guardians prior to the commencement of the study.

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Conflicts of Interest

The authors declare no conflict of interest.

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