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Influences of Digital Native Storytelling on Foreign Language Learners' Native Cultural Awareness

Xiaoxi Liang [1] , *Seriaznita Haji Mat Said [2*]* , *Liangshuai Wei [2]*

[1] *Faculty of Language Academy, Universiti Teknologi Malaysia, Kuala Lumpur 50000, Malaysia*
[2] *Huihua College, Hebei Normal University, Shijiazhuang 050091, China*

ABSTRACT

English language teaching and learning calls for fostering a profound comprehension of both the target language culture and the native culture in Foreign Language (FL) learning. However, in Intercultural Communicative Competence (ICC) learning and teaching, the focus tends to be on integrating the target culture, often neglecting the role of native culture. In response to the gap, the study aims to explore the effectiveness of employing digital native storytelling in English to foster their awareness of their native culture within the context of ICC. A mixed quantitative (questionnaires) and qualitative (semi-structured interview) method design with a quasi-experiment was employed. The research found out that digital native storytelling improved Chinese FL learners' attitudes dimension of native cultural awareness, such as the appreciation and respect for cultural heritage by improving language proficiency and artificial intelligence competence for cultural expression. This study provides theoretical and practical implications for future FL research and pedagogy.
Keywords: Digital Native Storytelling in English; Native Cultural Awareness; Higher Education; Foreign Language Learners; Intercultural Communicative Competence

1. Introduction

Intercultural Communicative Competence (ICC) refers to the ability to communicate and interact effectively with individuals from diverse cultural backgrounds. It encompasses language proficiency, cultural awareness, empathy, and the adaptability to change one's communication style according to different cultural contexts. ICC is deemed a vital component of Foreign Language (FL) learning and teaching[1]. In line with this, the new English Teaching Syllabus for English Majors in Higher Education Institutions in China[2] mandates the development of ICC alongside sensitivity, tolerance, and flexibility to cultural differences. Intercultural awareness is a cognitive comprehension of the culturally influenced norms, behaviors, and perspectives involved in intercultural communication[3]. Intercultural awareness has been identified as vital in ICC for FL learning[4–6].

FL educators and researchers have emphasized cultural awareness in ICC research but have overlooked native cultural awareness (NCA)[7–9]. NCA refers to the awareness of expressing one's mother tongue culture[10]. NCA is crucial to effective intercultural communication[11]. Neglecting NCA in FL learning could cause deficiencies in home culture sharing during intercultural communication[12]. A lack of connection to one's native culture may undermine L2 learners' motivation to study FL with dedication[13]. Thus, achieving cultural exchange and mutual learning among civilizations remains a challenge. One-way cultural assimilation is prevalent, with the target language culture experiencing a solitary influx. Correctly understanding local cultures predicts an active attitude towards other cultures and languages[14]. Chinese cultural aphasia in the present study refers to the fact that English instruction primarily focuses on target cultural elements but fails indigenous English to integrate indigenous culture through the medium of English adequately[15]. Consequently, English representation of native culture within the realm of intercultural communication has been largely overlooked. In contrast, neglecting native culture can lead to cultural aphasia in foreign language education contexts[16, 17].

Telling native cultural stories in the target language can effectively enhance L2 learners' NCA and motivation[1]. College students can develop the ability to express their native culture in English while enhancing their English proficiency[18]. Scholars in China have investigated integrating Chinese culture into FL teaching to improve students' NCA and cultural confidence[1, 19, 20].

Digital storytelling, a novel FL teaching approach, fuses traditional storytelling techniques with multimedia technology, thereby integrating diverse modalities such as images, text, video, and audio[21]. Distinct from regular videos, digital stories, typically brief videos lasting 2–5 minutes, necessitate superior storytelling and emphasize the expression of the producer's inner thoughts[22]. Engaging students in digital learning activities can minimize anxiety and motivate them to learn FL[23]. Studies on digital native storytelling in FL are primarily theoretical discussions, while empirical research remains in its early stages[24]. As a result, there is not much reference for pedagogical design.

Therefore, the present study aims to explore the effectiveness of native storytelling in English with digital tools in enhancing students' NCA, ultimately improving their overall ICC. A sequential explanatory mixed-methods design with a quasi-experimental design was employed, with quantitative data derived from pre-and post-test questionnaires and qualitative data from semi-structured interviews and journal writing input.

2. Literature Review

2.1. Native Cultural Awareness in Foreign Language Learning and Teaching

Investigations on the dimensions of NCA in FL learning and teaching have been conducted by scholars[19, 24, 25]. Wu and Miller examined NCA based on Byram's[26] ICC model, comprising four dimensions: attitudes, knowledge, skills, and critical awareness. They highlighted that learners' attitudes towards NCA encompass open-mindedness and confidence. Knowledge aspects included English news and vocabulary, while skills encompassed course learning and the ability to operate new knowledge. Critical awareness involved EF learners' justification of whether their dissatisfaction or satisfaction was due to insufficient knowledge of Chinese culture, logical thought processes, and expression abilities in negotiating differing opinions[27]. Wu and Miller made clear that there are four dimensions of NCA: attitudes, knowledge, skills, and critical awareness. Klimanova[24] examined NCA dimensions based on the MAPS (Making digital artefacts of local cultural products/practices) model to investigate native cultures. This model, rooted in Byram's

ICC model, comprises five dimensions: attitudes of openness and curiosity, knowledge about the native and target cultural countries, interpretative and relating skills across cultures, seeking new knowledge, and critical cultural awareness [26].

Native and target cultural countries are now defined as the country where the learner's first language and cultural background originate, while target cultural countries refer to the country where the FL originates, i.e., the cultural background that the learner focuses on when studying the FL. Klimanova also made clear the same four dimensions of NCA: attitudes, knowledge, skills, and critical awareness.

Numerous researchers have examined NCA from various perspectives such as curriculum, textbook content, non-native FL teachers, departments responsible, tests, classroom activities, and teaching philosophies and methods [19, 28–30]. In the field of FL education, scholars have conducted a content analysis on textbooks for FL learners. The culture in target cultural countries is predominantly featured in these textbooks, with minimal or no local cultures of countries learning English as the second or FL. This phenomenon has garnered significant attention from the academic community [7, 8, 31–33]. Numerous researchers indicate that NCA can be studied from various FL learning experiences.

Native culture content cultivators can play a significant role in enhancing the cultivation of NCA in English classroom learning [32, 34]. Estuarso conducted a study in Indonesia to explore the development of non-native English teachers in incorporating native cultural materials into their English learning classes. With the integration of native culture, students enjoyed learning both the language and their native culture simultaneously, which motivated students to engage with and focus on the material being presented [35].

2.2. Attitudes of NCA

The primary objective of Byram's [36] theory on ICC was to foster a curious and open mindset, enabling individuals to set aside any confusion or preconceptions they may have about other cultures. Fu further delved into this dimension and identified several key elements. For example, individuals should be willing to actively seek out or embrace opportunities to engage in communication with others on an equal footing, rather than being driven solely by an interest in their own native or target cultures. Scholars have discovered that FL learners possess distinct attitudes towards their

native culture. Previous studies have indicated that learners' attitudes towards their native culture are relatively weak and require enhancement [9, 37]. Some scholars have demonstrated that following training, learners' attitudes towards their native culture have significantly improved [34, 35, 38].

2.3. Knowledge of NCA

Knowledge of NCA encompasses native cultural elements unique to countries, such as Chinese history, festivals, architecture, customs, and poetry in China [39]. Researchers have explored methods to enhance students' NCA by integrating indigenous cultural knowledge [40–42].

The knowledge of NCA in China encompassed Chinese history, festivals, architecture, customs, and poetry. Wu and Zhang [42] implemented virtual reality (VR) learning in one Chinese university, specifically with game-based FL learning and VR-enhanced FL learning. The integration of NCA in China encapsulated both traditional Chinese culture with distinctive characteristics and the accomplishments of contemporary Chinese cultural development [40, 43, 44].

Despite the extensive research on incorporating native knowledge to enhance students' NCA, there remains a scarcity of empirical practices in this area. This is due to the vastness, complexity, and uniqueness of native cultures, making it challenging to cover all aspects through limited teaching sessions. Therefore, teachers were required to design NCA-related lessons based on student's abilities and adapt to local circumstances, and continuously explored to address this issue [40]. As Li pointed out, it was urgent to conduct empirical practices on incorporating native knowledge to enhance students' NCA.

2.4. NCA-Related Teaching Strategies and Skills

Intercultural communicators should possess two primary abilities. The first is the capacity to interpret and connect documents or events from the perspective of other cultures, as well as to interpret and connect them based on cultural documents or events [45]. The second is the skill of exploration and communication, which involves acquiring knowledge of a culture and cultural practices and applying one's knowledge, attitude, and skills within the constraints of real-time communication. It is important to integrate native

and target cultures in language learning, as long as adequate scaffolding support is provided and language tasks are created [46, 47].

However, students exhibited relatively weak skills in interpreting and relating to native culture, as well as in discovering and interacting with it [48]. Firstly, the ability of students to express themselves in English regarding Chinese culture was inadequate. According to Hu [49], ninety per cent of students were unable to clearly and fluently introduce Chinese culture to foreigners in English. Only 5% of students claimed to be proficient in doing so, while another 5% occasionally managed to express Chinese culture clearly in English.

College students demonstrated weak skills in finding and using teaching resources that reflect the native culture in English. Hu [49] noted that only 10% of students had convenient access to read Chinese cultural teaching content aimed at English learners when asked about their access, the responses they provided were predominantly online searches, with 45% of students occasionally having access to read Chinese cultural teaching content aimed at English learner, and 45% having never encountered similar materials.

2.5. Critical Cultural Awareness

Critical cultural awareness is the conscious capability to perform critical assessments [45]. Scholars have examined the role of FL learning and teaching practices in enhancing students' critical cultural awareness [44, 50]. Notably, Li [44] integrated the dimension of critical cultural awareness and employed diverse cultural teaching methods to deepen students' understanding of cultural differences between nations and ethnic groups.

As previous studies pointed out, Chinese researchers have recognized the importance of enhancing students' NCA from various perspectives and suggested that further examination of NCA improvement should be conducted within the field of English language education [51]. Overall, scholars have conducted theoretical and empirical researches on various dimensions of NCA, with the proportion of research on NCA dimensions varying across departments. Despite the decade-long attention given to improving learners' NCA through FL teaching and learning, there have been few attempts to systematically study the issue or provide practical recommendations for solving it [52].

2.6. Digital Native Storytelling in Foreign Language Learning and Teaching

With the rapid advancement of digital information technology, such as the integration of online and offline teaching, and the growing diversity and localization of ICC [53], the need for innovative teaching methods in fostering ICC in FL classrooms has become imminent. Digital storytelling, utilizing native culture, might be a timely and adaptive approach that enhances students' intercultural awareness [54] and learning motivation [55]. Scholars have conducted the MAPS model that could engage local cultures in the classroom by digital storytelling methods. The MAPS model emphasises critical observation and deep (as opposed to superficial) analysis of local culture, and targeted and developed students' semiotic awareness [24].

The production of short videos incorporating Chinese storytelling in English has garnered significant attention [56]. To ensure effective communication and engagement with the target audience. As Sun pointed out, by incorporating the preparation of Chinese storytelling short videos in English, content creators can effectively engage and resonate with their target audience, ultimately leading to a more successful and impactful narrative.

The digital storytelling approach has been demonstrated to foster learners' positive motivation towards learning [57–59]. In storytelling activities, organizing post-class activities such as speech contests, short drama performances, knowledge competitions, writing contests, and handwritten newspaper competitions, provides students with opportunities to showcase Chinese culture in English [18]. These activities comprehensively stimulate and maintain students' enthusiasm for learning and curiosity for knowledge, ultimately leading them into a virtuous cycle of learning [60].

Digital native storytelling became an effective tool to express the students' cultural identities and their responses to local culture [61, 62]. Scholars investigated the storytelling method in FL education in a qualitative study by data collecting and analyzing of interviews and journal writings for Indonesian junior-school students. The results revealed that storytelling integrating native stories in modern technology became an effective tool to express the students' cultural identities and their responses to local culture [61, 63]. What's more, limited research also exists on the relationship between digital native storytelling and NCA.

Research Objectives

1. To investigate whether integrating digital native storytelling can help improve Chinese foreign language learners' native cultural awareness in foreign language learning and teaching;

2. To investigate what factors may influence Chinese foreign language learners' native cultural awareness by the digital native storytelling method in foreign language learning and teaching?

Research Questions

RQ 1. Does digital native storytelling help improve Chinese foreign language learners' native cultural awareness?

QR 2. How effectively can digital native storytelling help improve Chinese foreign language learners' native cultural awareness?

Hypotheses:

1. *Integrating digital native storytelling method can effectively help improve Chinese foreign language learners' attitude toward native cultural awareness in foreign language learning and teaching.*

2. *Integrating the digital native storytelling method can effectively help improve Chinese foreign language learners' awareness of native cultural awareness in foreign language learning and teaching.*

3. *Integrating the digital native storytelling method can effectively help improve Chinese foreign language learners' skills of native cultural awareness in foreign language learning and teaching.*

4. *Integrating the digital native storytelling method can effectively help improve Chinese foreign language learners' knowledge of native cultural awareness in foreign language learning and teaching.*

3. Research Method

The present study employed a mixed method of quantitative and qualitative method design with a quasi-experiment, including 123 English majors from a Chinese university in one experimental group and one control group. The experimental group emphasized teaching practices that involved narrating Chinese stories in English for the development of FL learners' NCA. To assess the effectiveness of narrating

Chinese stories in English practices in enhancing the NCA of English majors, a comparative analysis of pre- and post-test results was conducted for both groups using the Chinese version of the native culture awareness scale.

3.1. Instructional Settings

This research aimed at incorporating the production of short videos about native stories in English into the "Integrated English" course for English major students (See **Table A1**). The study was based on the textbook "Modern College English", edited by Yang Limin and published by Foreign Language Teaching and Research Press. The teaching intervention in the experimental group with digital native storytelling in English method was conducted over 8 weeks in three rounds, involving second-year English major students. Following Klimanova's [24] process for teaching native stories, each round of teaching practice comprised three stages: Stage 1 involved collecting materials for local native stories and producing English short videos. Stage 2 included sharing and discussing the English short videos in the classroom. Stage 3 focused on reflecting on the videos and exchanging thoughts after class.

Referring to previous teaching practice research [24], the experimental group teachers guided participants to create short videos centering around a native culture theme for practical teaching activities of Chinese storytelling in English. The students engaged in the production, sharing, and discussion of short English videos based on Chinese stories as the main activity. This approach was rooted in native cultural values and real-life stories and included activities such as thematic discussions, teacher-student evaluations, peer evaluations, and self-reflection (see **Table 1**).

Questionnaires

In prequestionnaire, quantitative data was collected using a web-based questionnaire survey with three main sections. The first section collected respondents' demographic information in both experimental groups and control groups; the second section consisted of 17 measurement items on the same 5-point Likert scale and measured native cultural awareness in both experimental groups and control groups. The questionnaire data was collected by Wenjuanxing, a popular online survey platform in China.

In the questionnaire, quantitative data was collected

Table 1. Teaching Design of the Experimental Group.

Themes	Weeks	Activities	Participants	Instruments	Analysis Methods
Unit 2+Chinese Wisdom	Week 1	1. Preparation of theme activity	Students & teachers	Pre-test questionnaires	Quantitative research (SPSS)
		2. Data Collecting	Teachers		
	Week 2	1. Sharing of digital storytelling productions	Students	Videos	
Week 3 & 4: Unit Chinese landscapes Week 5 & 6: Unit Chinese traditional culture	Week 3 & week 5	1. Preparation of theme activity	Students & teachers		
	Week 4 & week 6	1. Sharing of digital storytelling productions	Students	Videos	
Unit 9+Chinese moral stories	Week 7	1. Preparation of theme activity	Students & teachers		
	Week 8	1. Sharing of digital storytelling production	Students	Videos	
		2. Data Collecting	Teachers	Post-test questionnaires Interviews	Quantitative research (SPSS) Qualitative research

using a web-based questionnaire survey with two sections. The first consisted of 15 measurement items on the same 5-point Likert scale and measured native cultural awareness in experimental groups, and 12 measurement items on the same 5-point Likert scale and measured native cultural awareness in control groups; the second section collects respondents' demographic information in both experimental groups and control groups.

3.2. Reliability and Validity of the Questionnaire

The analysis of the Cronbach alpha value for the pre-test questionnaire on native cultural awareness revealed a value of 0.867 for the 16 items, indicating a reliable level of internal consistency. Similarly, the analysis of the Cronbach alpha value for the same questionnaire, but with 11 items, resulted in a value of 0.930, which was considered highly reliable. These results suggested that the questionnaire was suitable for use in the current research due to its demonstrated reliability.

The KMO test is a measure of sampling adequacy used to assess the suitability of data for factor analysis. A KMO value greater than 0.7 indicates that the sample is adequate for factor analysis. In the context of the pre-test questionnaire on native cultural awareness, the KMO value of 0.867 for the 16 items suggests that the data was suitable for factor analysis and is considered reliable. Therefore, based on these

KMO values, the questionnaire on native cultural awareness was deemed reliable for use in the current research.

3.3. Semi-Structured Interview

Then semi-structured questions related to the interviewees' answers to the questionnaire items were conducted to gain in-depth data. In our study, there were two groups of participants, eight to twelve participants took part in the semi-structured interview. The interview data helped triangulate the questionnaire data with a thick description of Chinese foreign language learners, and the interrelatedness among these items.

3.4. Purposive Participants

The study used purposive sampling[64] to recruit 123 sophomores (12 males, 111 females) from four classes at a university in Hebei Province, China. Sixty-two students were assigned to the experimental group and 61 to the control group. Both groups had similar age distributions, gender ratios, and academic performance, and were English majors studying the same courses (e.g., Basic English, English Reading and Writing). They used identical textbooks and instructional content. The university, representative of northern Chinese higher education in English majors, focuses on fostering intercultural communicative competence (ICC). All participants, who had studied English for over ten years,

consented to participate. Their proficiency was measured using entry scores from the Nationwide Unified Examination for Admissions to General Universities and Colleges, a recognized academic indicator[1].

3.5. Procedure

The present study was a quasi-experimental study with mixed methods, which aimed to understand how the method of native storytelling could influence learners' NCA. The research spanned over 8 weeks, consisting of 4 rounds of student presentations conducted in the form of short videos. Each round followed a three-stage structure, including pre-class preparation, classroom presentation, and reflection summary. The research was divided into four main stages: preliminary research, pre-treatment and post-treatment. The two English teachers first explained the content and filling method of the questionnaires for approximately 5 minutes and then asked the students to fill in the questionnaires on-site. Subsequently, the online survey platform automatically converted the collected responses into SPSS files and transmitted them back to the research team. After collecting post-questionnaires, the researcher conducted semi-structured interviews in week 8.

3.6. Data Collection

Descriptive analysis, confirmatory factor analysis, multiple linear regression, and thematic analysis of the data were provided (See **Table 2**). Quantitative data was analyzed by SPSS Online Analysis Software (software for analyzing qualitative data online).

Table 3 illustrates the mean and SD for the attitude dimensions of native cultural awareness. In the EG, the pre-test mean was 3.706 (SD = 0.707), which increased to 3.994 (SD = 0.721) at the post-test. For the CG, the pre-test mean was 3.928 (SD = 0.712), which slightly decreased to 3.927 (SD = 0.671) at the post-test.

Table 3 shows the mean and SD for awareness dimensions of native cultural awareness. In the EG, the pre-test mean was 4.198 (SD = 0.653), which increased to 4.226 (SD = 0.602) at post-test. For the CG, the pre-test mean was 4.238 (SD = 0.673), which slightly decreased to 4.168 (SD = 0.650).

Table 3 shows the mean and SD for the skills dimension of the native cultural awareness. In the EG, the pre-test mean was 3.258 (SD = 0.733), which increased to 4.030 (SD = 0.829) at post-test. For the CG, the pre-test mean was 3.426 (SD = 0.603), which increased to 3.850 (SD = 0.833).

Table 3 illustrates the mean and SD for the knowledge dimension of native cultural awareness. In the EG, the pre-test mean was 3.190 (SD = 0.682), which increased to 3.850 (SD = 0.884). For the CG, the pre-test mean was 3.374 (SD = 0.609), increased to 3.900 (SD = 0.724).

4. Data Analysis and Findings

Table 3 displays the multiple regression analysis results examining native cultural awareness through different dimensions: Attitude, Awareness, Skills, and Knowledge. The multiple linear regression model for Attitude was statistically significant, $p < 0.001$, explaining 49.0% of the variance. This suggested a significant improvement in attitude after students utilized the intervention, compared to those who did not (see Attitude in **Table 4**). Specifically, on average, the attitude of the experimental group was 0.490 points higher than that of the control group ($p < 0.05$).

For Awareness, Skills, and Knowledge, the models were not statistically significant, with R-squared values of 26.7%, 12.4%, and 12.4%, respectively. The coefficients for treatment were positive but not statistically significant, indicating that the intervention did not have a significant effect on these outcomes.

In the Attitude model, control variables such as Gender, Age, and English Proficiency did not have significant effects. The R-squared value indicated that the model explained a substantial portion of the variance in Attitude. However, for Awareness, Skills, and Knowledge, the control variables also did not show significant effects, and the models explained only a small portion of the variance.

In summary, the treatment had a significant positive effect on Attitude, but not on Awareness, Skills, or Knowledge. The Attitude model demonstrated a strong explanatory power, while the other models did not. This highlights the intervention's effectiveness in improving students' Attitudes but not necessarily their Awareness, Skills, or Knowledge.

Table 2. Demographic Features of Participants.

Variables		Number (%)
Gender	Male	12 (9.76%)
	Female	111 (90.24%)
Age	18	1 (0.82%)
	19	51 (41.46%)
	20	57 (46.34%)
	21	14 (11.38%)
Scores for Nationwide Unified Examination for Admissions to General Universities and Colleges in China	130–150	3 (2.44%)
	110–129	79 (64.23%)
	90–109	38 (30.89%)
	Below 90	3 (2.44%)

Table 3. DescriptiveStatisticsofPre-testQuestionnairesandPost-test Questionnaires of Native Cultural Awareness.

Variable/Treatment	Pre-Test				Post-Test			
	EG(N = 61)		CG(N = 62)		EG(N = 61)		CG(N = 62)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Attitude	3.706	0.707	3.928	0.712	3.994	0.721	3.927	0.671
Awareness	4.198	0.653	4.238	0.673	4.226	0.602	4.168	0.650
Skills	3.258	0.733	3.426	0.603	4.030	0.829	3.850	0.833
Knowledge	3.190	0.682	3.374	0.609	3.850	0.884	3.900	0.724

5. Discussion

Through a combination of quantitative and qualitative research methods, this study seeks to provide insights into the impact of digital storytelling on students' language learning experiences. Research question one: digital native storytelling method can effectively improve Chinese FL Learners' native cultural awareness to learn the FL. Research question two: "How effectively can digital native storytelling help improve Chinese FL learners' native cultural awareness to learn the language?" the answer can be found from the themes of the semi-structured interviews.

Reason 1: Adopting the digital native storytelling method improved Chinese FL learners' positive attitude through self-aspirations for personal growth.

The creation of short videos centered on native stories has been shown to promote students' motivation, enthusiasm, and self-confidence[65]. The positive impact of digital storytelling assignments on students' motivation and confidence in learning English was well-documented. This aligned with the findings of Jitpaisarnwattana, which emphasized the importance of meeting individual student needs and interests. In this study, students expressed a strong affinity for the Internet, which sparked their curiosity and interest in sto-

rytelling activities. The engagement with digital tools and video editing software not only made the learning process enjoyable but also encouraged students to articulate their cultural narratives in English.

Digital storytelling created an immersive language environment that enabled students to experience language in authentic contexts by integrating various multimedia elements. Exposure to real-world communication patterns and colloquialisms enhanced their language acquisition process. As students observed and engaged with short story videos shared online, they were inspired to contribute their narratives, further reinforcing their connection to the material.

The collaborative nature of group work in these storytelling activities enhanced students' communication and teamwork skills. Many students reported that the project encouraged them to interact more with their peers, fostering a sense of community and shared purpose. This collaborative effort aligned with findings from Hamouda and Kevser[65], which highlighted the role of digital storytelling in increasing engagement, motivation, and critical thinking skills.

Reason 2: Adopting the digital native storytelling method effectively improved Chinese FL learners' positive attitude through appreciation and respect for Chinese cultural heritage.

Table 4. Multiple regression analyses data of the questionnaires of native cultural awareness.

Variable	Attitude	Awareness	Skills	Knowledge
Treatment	**0.490***	0.983	0.566	0.996
	(0.047)	(0.353)	(0.118)	(0.261)
Gender	0.998	0.560	0.998	0.998
	(0.092)	(0.623)	(0.807)	(0.278)
Age	0.537	0.566	0.779	0.599
	(0.143)	(0.173)	(0.223)	(0.304)
English proficiency	0.995	0.772	0.997	0.997
	(0.122)	(0.506)	(0.600)	(0.545)
R-squared	0.490	0.267	0.124	0.124
Constant	0.992	0.967	0.969	0.996
Observations	123	123	123	123

Note: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.

Previous research has found that activities involving native cultural materials improved students' open-mindedness and curiosity toward native cultural attitudes (NCA). The recent research adopted short video-making activities before reading, meeting the individual needs and interests of students[66]. The significant inspiration in these stories provided them with deep reflection. As one student mentioned: "I like the Chinese famous character Confucius Kong Zi. I was really moved by his contribution to our Chinese spirit in history. Most of the famous ideologists offered insights into their character traits and significant life events."

The present research also had some different findings from previous studies. According to the interviews, students experienced creative inspiration when creating digital native storytelling in English through short videos. Digital stories encourage independent exploration and critical thinking[67]. While preparing the native stories, students showed a deep interest in various story materials. For instance, one student shared, "I love taking photos of famous Chinese spots, recording our performances, and editing videos using technology. The technology helped me notice more valuable aspects of Chinese culture that I had never known before." Digital storytelling enhances students' creativity and critical thinking skills[68]. Therefore, the short videos with native story materials inspired students' creative ideas. One student expressed a desire to submit his videos to the internet to share interesting cultural aspects with others. Digital storytelling methods in foreign language learning have been shown to improve critical thinking skills and self-confidence[65, 69].

Reason 3: Digital native storytelling effectively improves Chinese FL learners' positive attitude by improving their language proficiency and artificial intelligence competence for cultural expression.

Digital native storytelling effectively improved Chinese FL learners' language proficiency, such as vocabulary, pronunciation and intonation, translation, reading and writing, and so on. The present research aligned with previous research findings that the use of storytelling as a pedagogical tool significantly enhanced students' English language proficiency, particularly in listening, speaking, and reading skills.

Firstly, vocabulary was significantly enlarged in the present research. Students mentioned, "I could translate the specialized terminologies in my prepared Chinese stories. After checking online and consulting my teachers, I resolved the difficulties." This research addressed the previous gap related to written expression, where vocabulary retention was inaccurate, unstable, and lacked translation skills[51, 70].

Secondly, digital native storytelling effectively improved Chinese foreign language learners' English reading and writing competence. The digital storytelling task exercised students' ways of making meaning from what they read[71]. Digital storytelling, a dynamic blend of narrative and technology, was effectively utilized in writing classes to enhance students' academic performance and writing skills[72]. Participants prepared their videos with music, and sound clarity, and received general feedback on linguistic inaccuracies such as grammar, structure, and lexical choice in group activities after class. Digital media provided us with new and exciting ways to capture and share our stories with others[73]. In the present study, students said, "I searched online and compared different translations of Chinese stories, and finally adapted one translation. If I need to share Chinese

stories, I need to prepare in advance."

Digital native storytelling also effectively improved Chinese FL learners' artificial intelligence competence for cultural expression. Gakhar and Thompson[71] argued that digital storytelling significantly enhances students' media literacy[71]. Digital storytelling has evolved in various ways, driven by advancements in personal computing and recording technologies. From the quantitative data, the present research calculated the main video editing software used (Capcut, PS, Tencent Meeting, and TikTok). The study also investigated the platforms and sources for searching materials (China Daily, Little Red Book, Douban, Zhihu, Quark, Coco English, Baidu, Google, Bilibili, and WeChat). From interviews, one student expressed interest in short video activities of native storytelling in English due to an interest in the video editing process. Additionally, some students said they could learn the technology from classmates and through platforms that teach tool usage. Previous research pointed out the utilization of a wide range of display platforms in conjunction with advancements in technology. The present research showed that online platforms and technologies for video editing were convenient and easy to master. After digital native storytelling activities, students were able to master various software through group activities. According to Lambert and Hessler, using various tools to create digital stories with advanced technology not only enhanced student engagement but also helped students develop technical and communication skills.

6. Conclusion

The study utilized mixed research methods to gather quantitative and qualitative data. These methods provided insights into students' L2 learning experiences of digital native storytelling and its impact on their native cultural awareness. This study has demonstrated how digital native storytelling in the foreign language learning curriculum significantly enhanced FL learners" native cultural awareness. The findings indicated that the process of creating short videos based on native stories not only fostered language proficiency but also empowered students' positive attitudes toward native culture. By engaging with their cultural narratives, learners developed a deeper appreciation for their heritage while simultaneously improving their English language skills.

6.1. Findings

Results from the questionnaires of NCA indicated that digital native storytelling effectively improved the attitude component of NCA on EF learners. The qualitative findings deeply analyzed how the digital native storytelling method improved FL learners' NCA. Firstly, Digital native storytelling not only effectively improved Chinese FL learners' appreciation and respect for native cultural value but also enhanced their creative ideas for sharing this native culture heritage, ultimately enhancing their ICC.

Secondly, digital native storytelling not only effectively improved Chinese FL learners' appreciation and respect for native cultural value but also enhanced their creative ideas for sharing this native culture heritage, ultimately enhancing their ICC. Thirdly, employing digital native storytelling techniques deepened native cultural awareness by effectively conveying the nuances of Chinese traditional stories.

6.2. Limitations

This study has some limitations. Firstly, the present research was a non-randomized design and relied on convenience sampling, hindering causal inference and limiting generalizability to a wider population. Secondly, the present study focused on undergraduate students, restricting the applicability to younger or advanced FL learners with diverse cultural backgrounds and L2 learning experiences. Lastly, the exclusion of themes related to Chinese characters and development narrowed the cultural context to enhance the understanding of cultural narratives' impact in educational settings.

6.3. Future Research Directions

Future research should concentrate on longitudinal studies to examine more elements of NCA, such as awareness dimension, skills dimension, and knowledge dimension. Although in this study there are fewer contributions from these dimensions, the long-term effects of digital native storytelling on other dimensions of NCA will be improved.

Future research should focus on longitudinal studies to assess the long-term effects of digital native storytelling on language proficiency and cultural identity. Such studies can provide deeper insights into the sustainability of the benefits observed in this research and inform best practices in

language education.

7. Pedagogical Implications

Based on the findings of this study, several recommendations can be made to improve the implementation of digital native storytelling in English in FL learning and teaching education. Future research should focus on higher-quality of native storytelling materials and short videos. To effectively integrate digital native storytelling, teachers must guide FL learners on choosing clear and specific native stories. The platforms for searching native story materials are useful, and it's better to search several platforms. According to the native story materials, FL learners should choose, compare, and translate appropriate topics and language, including vocabulary, grammar, sentence structure, ideas, and so on. As for short video editing, it is troublesome to produce long-time videos, therefore, a 2–5-minute video is acceptable. English doubling is another important element that influences the quality of short video. Group members should choose someone whose English pronunciation and intonation are standard, and practice more before doubling. The background music of the short video contributes to higher-quality short videos.

Author Contributions

Conceptualization, S.H.M.S.; methodology, X.L.; software, X.L.; validation, W.L.S.; formal analysis, S.H.M.S.; investigation, L.W.; resources, L.W.; data curation, X.L.; writing—original draft preparation, S.H.M.S.; writing—review and editing, S.H.M.S.; visualization, S.H.M.S.; supervision, S.H.M.S. All authors have read and agreed to the published version of the manuscript.

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Data Availability Statement

The authors confirm that all data generated and analyzed in this study are included in this paper.

Conflicts of Interest

The authors declare no conflict of interest.

Appendix A

Table A1. Design of Chinese Storytelling in English Based on Short Video Forms.

Design of Chinese Storytelling in English Based on Short Video Forms	
Textbook	**Contemporary College English Third Edition, Yang Limin, Foreign Language Teaching and Research Press**
Participants	Sophomores
Preparation in advance	Students create short videos of Chinese stories.
Conducting in classes	Students share their short videos of Chinese stories with peers.
Post class consolidation	Students engage in discussions about their previous activities and compare their own and others' work.
Aims	1) emphasize the role of students as learning subjects and teachers as guides and facilitators; 2) emphasize cooperation between teachers and students, providing mutual help and support, and continuously building new knowledge; 3) integrate educational technology into subject learning, which has become an undeniable trend; 4) boosts students' enthusiasm and motivation for English learning, strengthen their native cultural identity, and establish native cultural confidence
Requirements of short video production	Robin (2008) asserted that digital storytelling integrates diverse technology modalities such as images, text, video, and audio (Hafner & Miller, 2011) to condense storytelling into a concise format, lasting 2–5 minutes, enhancing students' confidence, enthusiasm, and reduce learning anxiety (Rodríguez, 2020).

Table A1. *Cont.*

Design of Chinese Storytelling in English Based on Short Video Forms

Activity evaluation	1) During class, students evaluate their assignments under the guidance of the teacher at each session; 2) Outside of class, self-evaluation and peer evaluation are integrated throughout the entire course. Classroom evaluation employs a teacher-student collaborative approach, where students conduct assessments under the guidance of the teacher (Sun, 2020).

Contents of the Textbooks	Chinese Thematic Stories (Xie, 2022)	Definitions of Chinese Thematic Stories	Times	Activities
Unit 2 Groundless Beliefs	Chinese Wisdom	This encompasses the philosophical contemplations of the Chinese nation and its accomplishments in knowledge and technological innovation. Examples include traditional Chinese medicine, ceramics, papermaking, the compass, and chopsticks. These reflect the wisdom, ingenuity, and philosophical principles underlying ancient Chinese society.	1–2 weeks	Chinese storytelling production based on video forms for the Four Great Inventions of China Sharing a short video of Classroom group Reflective journals after activities of short videos
Unit 4 Lions and Tigers and Bears	Chinese landscapes	Notable examples include the Yellow River, the Great Wall, and the Dunhuang murals. These landscapes represent the beauty and grandeur of China's natural wonders.	3–4 weeks	Chinese storytelling production based on video forms for China's Yellow River, Great Wall, Chinese Spring Festival, Mid-Autumn Festival, Chinese cheongsam, Zhongshan suit, Chinese cuisine, and Peking Opera
	Chinese Traditional culture	Traditional cultural themes primarily encompass traditional festivals, folk art, Chinese food culture, Chinese clothing, etc.);	5–6 weeks	Sharing a short video of Classroom group; Reflective journals after activities of short videos
Unit 9 The Damned Human Race	Chinese Moral stories	Moral stories refer to narratives related to traditional virtues that have been passed down orally from generation to generation and remain relevant today.	7–8 weeks	Chinese storytelling production based on video forms for Kong Rong giving up pears, Meng Mu's three relocations, Zengzi giving up his seat, Li Shiqian being generous and charitable Sharing a short video of Classroom group; Reflective journals after activities of short videos

References

[1] Thayyib, M., Haerazi, H., 2023. Intercultural communicative competence code using English literature: A case study at some Islamic universities in Indonesia. Register Journal. 16(1), 112–138. DOI: https://doi.org/10.18326/register.v16i1.112-138

[2] EGotTGCfFLMiHE Institutions, 2000. English Teaching Syllabus for English Majors in Higher Education Institutions Foreign language teaching and research press China. pp. 1–22.

[3] Baker, W., 2012. From cultural awareness to intercultural awareness: Culture in ELT. ELT Journal. 66(1), 62–70. DOI: https://doi.org/10.1093/elt/ccr017

[4] Chen, X., 2023. Exploration on the teaching path of integrating "telling Chinese stories" into college English. Frontiers in Educational Research. 6(4), 142–147. DOI: https://doi.org/10.25236/FER.2023.060424

[5] Liu, W., Yang, M., 2023. Construction of input-comparison-output (ICO) intercultural mode for sustainable development in EFL education. Sustainability. 15(12), 9209. DOI: https://doi.org/10.3390/su15129209

[6] Niitsu, K., Kondo, A., Hua, J., et al., 2023. A case report of collaborative online international learning in nursing and health studies between the United States and Japan. Nursing education perspectives. 44(3), 196–197. DOI: https://doi.org/10.1097/01.NEP.0000000000000974

[7] Banaruee, H., Farsani, D., Khatin-Zadeh, O., 2023. Culture in English language teaching: A curricular evaluation of English textbooks for foreign language learners. Frontiers in Education. 8, 1012786. DOI:

https://doi.org/10.3389/feduc.2023.1012786

[8] Lu, J., Liu, Y., An, L., et al., 2022. The cultural sustainability in English as foreign language textbooks: Investigating the cultural representations in English language textbooks in China for senior middle school students. Frontiers in Psychology. 13, 944381. DOI: https://doi.org/10.3389/fpsyg.2022.944381

[9] Yang, A., 2018. English Teaching and the Cultivation of Young People's Cultural Confidence. Advances in Educational Technology and Psychology. 2(2), 125–155. DOI: https://doi.org/10.23977/aetp.2018.21012

[10] Huo, C., 2015. A brief analysis of culture aphasia in higher English teaching in China. Sociology Study. 5(1), 255–261. DOI: https://doi.org/10.17265/2159-5526/2015.04.001

[11] Larry Crumbley, D., Murphy Smith, L., 2000. Using short stories to teach critical thinking and communication skills to tax students. Accounting Education. 9(3), 291–296. DOI: https://doi.org/10.1080/09639280010017248

[12] Song, J., 2018. A study of Chinese culture aphasia in college English teaching in China. Journal of Language Teaching and Research. 9(2), 309–315. DOI: https://doi.org/10.17507/jltr.0902.12

[13] Chen, J.F., Warden, C.A., Chang, H.T., 2005. Motivators that do not motivate: The case of Chinese EFL learners and the influence of culture on motivation. TESOL quarterly. 39(4), 609–633. DOI: https://doi.org/10.2307/3588524

[14] Mikolič, V., 2010. Culture and language awareness in the multicultural environment of Slovene Istria. Journal of Pragmatics. 42(3), 637–649. DOI: https://doi.org/10.1016/j.pragma.2009.07.012

[15] Cong, C., 2000. "Aphasia of Chinese Culture": The Flaws of English Teaching in China, in Guang Ming Daily: Beijing, China.

[16] Legg, C., Penn, C., 2013. A stroke of misfortune: Cultural interpretations of aphasia in South Africa. Aphasiology. 27(2), 126–144. DOI: https://doi.org/10.1080/02687038.2012.684338

[17] Penn, C., Armstrong, E., 2017. Intercultural aphasia: New models of understanding for Indigenous populations. Aphasiology. 31(5), 563–594. DOI: https://doi.org/10.1080/02687038.2016.1213788

[18] Sharleen, C., 2024. From traditional to digital: Children's learning of traditional Chinese culture through festival-related storytelling. Event Management. 28(4), 549–565. DOI: https://doi.org/10.3727/152599523X16957834460240

[19] Wu, J.G., Miller, L., 2021. Raising native cultural awareness through WeChat: a case study with Chinese EFL students. Computer Assisted Language Learning. 34(4), 552–582. DOI: https://doi.org/10.1080/09588221.2019.1629962

[20] Zhang, D., Wu, J.G., 2023. Enhancing EFL learn-

ers' native cultural awareness via project-based learning. TESL-EJ. 27(1). DOI: https://doi.org/10.55593/ej.27105int

[21] Miller, L., Hafner, C.A., 2015. Taking control: A digital video project for English for science students, in Language Learning Beyond the Classroom. Routledge: London, UK. pp. 213–222.

[22] Li, S., 2011. Digital storytelling: A new approach to learning and expression - A case study of the 'Shanghai female teachers' storytelling competition. Shanghai Education Research. (3), 44–46.

[23] Mohammadi Khomjani, M., 2020. Effect of digital storytelling on learning motivation and reducing anxiety of learners to talk to others in a foreign language. Concordia University: Irvine, CA, USA. pp. 5–35.

[24] Klimanova, L., 2021. Putting local on the MAP: A model for engaging foreign language students with local cultures. Foreign Language Annals. 54(1), 158–184. DOI: https://doi.org/10.1111/flan.12493

[25] Liang, X., Wei, L., Said, S.H.M., 2024. Developing Chinese prospective EFL teachers' NCA: A qualitative approach. Educational Administration: Theory and Practice. 30(4), 7054–7063. DOI: https://doi.org/10.53555/kuey.v30i4.1194

[26] Byram, M., 1997. Teaching and assessing intercultural communicative competence. Multilingual Matters: Bristol, UK. p. 124.

[27] Wu, J.G., Miller, L., 2019. Raising native cultural awareness through WeChat: a case study with Chinese EFL students. Computer Assisted Language Learning. 34(4), 552–582. DOI: https://doi.org/10.1080/09588221.2019.1629962

[28] Cakir, I., 2006. Developing cultural awareness in foreign language teaching. Turkish Online Journal of Distance Education. 7(3), 154–161.

[29] Nishanthi, R., 2020. Understanding of the importance of mother tongue learning. International Journal of Trend in Scientific Research and Development. 5(1), 77–80. DOI: https://doi.org/2456-6470

[30] Wu, J., 2016. Prospective digital stories: An effective way to improve the phenomenon of "Chinese cultural aphasia" among college students. Journal of Jiangsu Second Normal University: Social Sciences. (1), 3.

[31] Almujaiwel, S., 2018. Culture and interculture in Saudi EFL textbooks: A corpus-based analysis. Journal of Asia TEFL. 15(2), 414. DOI: https://doi.org/10.18823/asiatefl.2018.15.2.10.414

[32] Estuarso, D., 2017. When local goes global: English teachers as cultivators of local culture in a globalized region. KnE Social Sciences. 1(3), 60–69.

[33] Nurlina, L., 2018. 2018 3rd International Conference on Education, Sports, Arts and Management Engineering (ICESAME 2018). Atlantis Press: Amsterdam, The Netherlands.

[34] Alujević, D., 2021. The effect of psychotypology and

linguistic attitudes towards target language on the oc-currence of transfer on the receptive level upon the first contact of Croatian speakers with Italian as L2. Folia Linguistica et Litteraria. 36(45), 249–264. DOI: https://doi.org/10.31902/fll.36.2021.15

[35] Ratri, D.P., Widiati, U., Astutik, I., et al., 2024. A Systematic review on the integration of local culture into English language teaching in southeast Asia: Current practices and impacts on learners' attitude and engagement. Pegem Journal of Education and Instruction. 14(2), 37–44. DOI: https://doi.org/10.47750/pegegog.14.02.05

[36] Byram, M., 2014. Chapter nine competence, interracction and action: Developing intercultural citizenship education in the language classroom and beyong. In Intercultural communication competence: Conceptualization and its development in cultural contexts and interactions. Cambridge Scholars Publishing: Cambridge, MA, USA. p. 190.

[37] Zhou, Y., 2016. How to integrate the traditional cultures into the college English teaching. In Proceedings of the ISSGBM International Conference on Information, Communication and Social Sciences (ISSGBM-ICS 2016); Hong Kong, China, 3–4 September 2016.

[38] Harjono, H., Wiryotinoyo, M., 2021. 3rd Green Development International Conference (GDIC 2020). Curran Associates, Inc.: Red Hook, NY, USA.

[39] Yang, Y.-T.C., Chen, Y.-C., Hung, H.-T., 2022. Digital storytelling as an interdisciplinary project to improve students' English speaking and creative thinking. Computer Assisted Language Learning. 35(4), 840–862. DOI: https://doi.org/10.1080/09588221.2020.1750431

[40] Li, J., 2020. Analysis on improving Ideological and political education level in colleges and universities by telling Chinese stories. Advances in Social Sciences. 09(3), 368–372. DOI: https://doi.org/10.12677/ASS.2020.93056

[41] Praheto, B.E., Andayani, M.R., Wardani, N.E., 2020. The effectiveness of interactive multimedia in learning Indonesian language skills in higher education. Rupkatha Journal on Interdisciplinary Studies in Humanities. 12(1), 1–11. DOI: https://doi.org/10.21659/rupkatha.v12n1.34

[42] Wu, J.G., Zhang, D., Wang, M., 2022. In 2022 8th International Conference of the Immersive Learning Research Network (iLRN); Vienna, Austria, 30 May–4 June 2022.

[43] Zhou, X., 2024. Analysis of integrating Chinese traditional culture into ideological and political education in colleges. Adult and Higher Education. 6(3), 54–59. DOI: https://doi.org/10.23977/aduhe.2024.060309

[44] Li, M., Zhang, L., 2021. Tibetan CSL learners' L2 motivational self system and L2 achievement. System. 97, 102436. DOI: https://doi.org/10.1016/j.system.2020.102436

[45] Byram, M., Byram, M., Lázár, I., et al., 2014. Developing intercultural competence through education. Council of Europe Publishing: Strasbourg, France. pp. 35–56.

[46] Godwin-Jones, R., 2013. Integrating intercultural competence into language learning through technology. Language, Learning and Technology. 17(1), 1–11. Available from: https://www.researchgate.net/publication/286881557_Integrating_intercultural_competence_into_language_learning_through_technology

[47] Xia, Y., Shin, S.Y., Kim, J.C., 2024. Cross-cultural intelligent language learning system (cils): Leveraging AI to facilitate language learning strategies in cross-cultural communication. Applied Sciences. 14(13), 5651. DOI: https://doi.org/10.3390/app14135651

[48] Hong-Li, P., 2019. Study on non-English majors' English proficiency in Chinese culture from the perspective of intercultural communication. American Chinese Foreign Language. 17(009), 417–424. DOI: https://doi.org/10.17265/1539-8080/2019.09.003

[49] Hu, L.T., Bentler, P.M., 2022. Exploring the current situation and countermeasures of 'Chinese culture silence' in college English learning. Journal of Shanxi Datong University (Social Science Edition). 36(3). DOI: https://doi.org/CNKI:SUN:DTZJ.0.2022-03-025

[50] Gao, G., 2023. Cultivating local cultural awareness in foreign language education from the perspective of intercultural communication. Journal of Hebei Open University. 28(1), 61–65. DOI: https://doi.org/10.13559/j.cnki.hbgd.2023.01.024

[51] Hu, X., McGeown, S., 2020. Exploring the relationship between foreign language motivation and achievement among primary school students learning English in China. System. 89, 102199. DOI: https://doi.org/10.1016/j.system.2020.102199

[52] Hu, X., 2023. Analysis of the causes and countermeasures of the 'cilence of Chinese culture' issue in EFL teaching. English Square. 27, 110–113. DOI: https://doi.org/10.16723/j.cnki.yygc.2023.27.023

[53] Chu, Y., 2013. The Disciplinary Characteristics of Comparative Education and the Localization of Educational Theory. Educational Research.

[54] Humairoh, M.F.N., 2023. Building undergraduate students cultural identity through digital storytelling. Communication Teacher. 37(3), 235–245. DOI: https://doi.org/10.1080/17404622.2022.2127820

[55] Kristiawan, D., Ferdiansyah, S., Picard, M., 2022. Promoting vocabulary building, learning motivation, and cultural identity representation through digital storytelling for young Indonesian learners of English as a foreign language. Iranian Journal of Language Teaching Research. 10(1), 19–36. DOI: https://doi.org/10.30466/ijltr.2022.121120

[56] Sun, S., 2023. A practical path to cultivate the communication ability of Chinese culture among college

students. Frontiers of Foreign Language Education Research. 4, 34–40. DOI: https://doi.org/10.20083/j.cnki.fleic.2023.04.034

[57] Al Ghaithi, A., Behforouz, B., Al Balushi, A.K., 2024. Exploring the effects of digital storytelling in Omani EFL students' self-directed learning, motivation, and vocabulary improvements. Studies in Self-assess Learning journal. 14(4), 415–437. DOI: https://doi.org/10.37237/140402

[58] Wu, H., Wang, Y., Wang, Y., 2024. "To Use or Not to Use?" A Mixed-Methods Study on the Determinants of EFL College Learners' Behavioral Intention to Use AI in the Distributed Learning Context. International Review of Research in Open and Distributed Learning. 25(3), 158–178. DOI: https://doi.org/10.19173/irrodl.v25i3.7708

[59] Wang, Y., Xue, L., 2024. Using AI-driven chatbots to foster Chinese EFL students' academic engagement: An intervention study. Computers in Human Behavior. 108353. DOI: https://doi.org/10.1016/j.chb.2024.108353

[60] Xiao, W., 2022. Analysis of "Chinese cultural aphasia" in integrated English teaching. Chinese American English Teaching: English Version. 19(7), 240–245.

[61] Kristiawan, D., Ferdiansyah, S., Picard, M., 2022. Promoting vocabulary building, learning motivation, and cultural identity representation through digital storytelling for young Indonesian learners of English as a foreign language. Iranian Journal of Language Teaching Research. 10(1), 19–36. DOI: https://doi.org/10.30466/IJLTR.2022.121120

[62] Printer, L., 2023. Positive emotions and intrinsic motivation: A self-determination theory perspective on using co-created stories in the language acquisition classroom. Language Teaching Research. DOI: https://doi.org/10.1177/13621688231204443

[63] Tanaka, S., Hatano, K., Ikeda, M., et al., 2024. Motivation to lead in Japan: validation of a Japanese version of the motivation to lead scale. Frontiers in Psychology. 14, 1328593. DOI: https://doi.org/10.3389/fpsyg.2023.1328593

[64] Klassen, A.C., Creswell, J., Plano Clark, V.L., et al., 2012. Best practices in mixed methods for quality of life research. Quality of life Research. 21, 377–380. DOI: https://doi.org/10.1007/s11136-012-0122-x

[65] Kevser, H., 2021. The effects of the flipped classroom on deep learning strategies and engagement at the undergraduate level. Participatory Educational Research. 8(1), 379–394. DOI: https://doi.org/10.17275/per.21.22.8.1

[66] Jitpaisarnwattana, N., 2018. Fostering Learner Autonomy in Foreign Language Classroom: A Digital Storytelling Project. Journal of Foreign Language Education and Technology. 3(2), 136–160.

[67] Harjono, H., Wiryotinoyo, M., 2021. Exploring the benefits of digital storytelling for enhancing teaching and learning. In Proceedings of the 3rd Green Development International Conference (GDIC 2020); Jambi, Indonesia, 2–3 October 2020. pp. 262–265. DOI: https://doi.org/10.2991/aer.k.210825.047

[68] Tang, S., 2016. Digital storytelling approach in a multimedia feature writing course. Journal of Language Teaching and Research. 7(3), 572. DOI: https://doi.org/10.17507/jltr.0703.19

[69] Hamouda, H., 2023. Digital stories for enhancing Palestinian refugee school children's English reading microskills: Action research study. International Journal of Linguistics, Literature and Translation. 6(8), 93–115. DOI: https://doi.org/10.32996/ijllt.2023.6.8.9

[70] Wu, 2021. The teaching reform of college English with ideological and political education based on telling satisfactory Chinese stories. Journal of Fujian Education Institute. (7), 69–71.

[71] Gakhar, S., Thompson, A., 2007. Society for Information Technology & Teacher Education International Conference. Association for the Advancement of Computing in Education (AACE): Waynesville, NC, USA.

[72] Azadipour, S., 2019. Personality types and intercultural competence of foreign language learners in education context. Journal of education and health promotion. 8(1), 236–244. DOI: https://doi.org/10.4103/jehp.jehp_447_18

[73] Roland, C., 2007. The art of digital storytelling. School Arts. 7–20.