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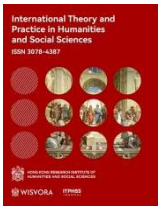

A Review of the Influence of Music on Foreign Language Teaching (1998-2024)

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Abstract

With the continuous progress of contemporary science and technology and cognitive neuroscience, a series of studies have revealed the significant overlap between music and language in the brain processing area, which provides important theoretical support for the transfer of music as an interdisciplinary tool to the field of foreign language teaching and research. Therefore, in-depth study of the interaction between music and language has a positive role in promoting the optimization of foreign language teaching strategies. Based on the review of 65 relevant studies (1998-2024) , this article aims to explore the potential role of music in foreign language learning and make an in-depth analysis of the limitations of the current research, providing beneficial suggestions for future foreign language teaching and theoretical research.

1.Introduction

Music and language are important media for the inheritance of human culture, each conveying ideas and emotions in unique ways. Language conveys information through written symbols, while music touches people's hearts through melody, rhythm, and emotional resonance. In terms of emotional communication, music demonstrates its unique advantages, as it can cross the boundaries of language, touch people's hearts, evoke resonance, and provide inspiration for language expression. It can be seen that music plays an important role in enhancing individuals' aesthetic appreciation and emotional expression abilities, while also promoting the development of language skills.

Due to the continuous development of contemporary technology and cognitive neuroscience, researchers have utilized advanced technological means to reveal the similarities between music and language in brain cognitive processing, providing a solid theoretical foundation for language teaching. In addition, numerous experimental studies have also confirmed that music has a significant promoting effect on foreign language teaching. In view of this, the article reviews the research on the influence of music on foreign language teaching from 1998 to 2024, deeply explores the interaction between music and language, analyzes the application effect of music in foreign language teaching, and proposes improvement suggestions based on the limitations of

existing research, in order to provide directions for future research.

2.Research Design

2.1 Research Questions

(1) What are the interactions between music and language?

(2) What influence does music have on foreign language teaching?

2.2 Research Sample

This study draws upon academic resource platforms including the China National Knowledge Infrastructure (CNKI) , Google Scholar, and Bing International to conduct a comprehensive analysis of the current research landscape and existing problems. The literature search was performed across three dimensions—titles, keywords, and abstracts—covering relevant publications from 2000 to 2024. The researcher utilized keywords such as “music,” “EEG,” “emotion,” “speech,” “vocabulary,” “grammar,” “listening,” “speaking,” “reading,” “writing,” “language” and “literature” for the retrieval process.

Considering the actual distribution of literature in the research field, this study not only focuses on high-quality journal articles from SCI, SSCI, CSSCI, and Peking Core journals but also incorporates research findings that possess academic value in this specific research area despite not being published in these core journals. Through these keyword searches, the study collected relevant academic literature from 1998 to 2024.

To ensure the academic rigor and scholarly integrity of the review, the researcher first conducted preliminary screening based on literature relevance, scientific methodology, reliability of conclusions, and academic contribution, eliminating publications unrelated to music and foreign language learning while identifying research articles pertinent to music and language acquisition. Subsequently, the initially selected articles underwent thorough reading, with careful analysis of research methods, findings, and conclusions to further filter high-quality literature meeting the review requirements. Through this retrieval and screening process, a total of 65 research articles related to music and foreign language studies were ultimately obtained, comprising 21 domestic publications and 44 international publications, spanning the period from 1998 to 2024.

3.Research on the Basis of Foreign Language Teaching from the Perspective of Music

The above has identified two key issues that need to be further explored and carefully selected 65 representative literature as the research basis. Next, detailed analyses and discussion will be conducted on these two issues, in order to further enrich and improve the theoretical system in related fields based on existing research.

3.1 Comprehensive Study on the Interaction between Music and Language

Regarding the interaction between music and language, according to existing literature records, it can be divided into three parts from macro to micro: research on the influence of music on language cognitive mechanisms, research on the influence of music on language processing mechanisms, and research on the influence of music on language emotional mechanisms.

3.1.1 Research on the Influence of Music on Language Cognitive Mechanisms

Cognitive mechanisms, serving as the foundation for language processing, reveal the role of music in brain cognitive processes, thereby providing insights into the analysis of complex language processing and emotional expression. From a theoretical perspective, researchers posit that the human brain possesses mechanisms for acquiring both music and language. In the domain

of language, Chomsky (1965) proposed the "Language Acquisition Device (LAD)," suggesting that children are innately endowed with the capacity for language learning. Building upon this foundation, some researchers, from an evolutionary standpoint, have further proposed the "Music Acquisition Device (MAD)," positing that the origin and development of human language may depend on MAD, with MAD evolutionarily preceding LAD (Vaneechoutte & Skoyles, 1998; Du, 2009). This theory implies that musical ability may be a crucial factor in the origin of language, gradually evolving into linguistic capacity through the course of human evolution. As evolution progressed, music and language underwent functional differentiation: music primarily focusing on emotional expression, while language emphasizing information transmission (Hoshino & Miyazawa, 2016). Nevertheless, both maintain close connections in terms of acquisition mechanisms and origins (Sun et al., 2014). Therefore, investigating the interaction between music and language not only facilitates understanding of their respective cognitive mechanisms but also elucidates their synergistic roles in human evolution and social communication.

As Henry Wadsworth Longfellow said, "Music is the universal language of mankind", which highlights the close cognitive connection between music and language. It can be seen that music and language, as two symbol systems, possess symbolic and evidential qualities, and transmit information through encoding methods, reflecting different dimensions of human thinking (Zhang & Wang, 2016). Simultaneously, semiotic theory elucidates the symbolic role of language and music in human culture and their interaction with humans, highlighting their unique functions and importance in culture (Xiao, 2023). This perspective constructs a multidimensional analytical framework that delves into the roles of music and language in human life, inspiring new trends in studying how these two symbolic systems interact and promote human communication and understanding.

With the development of neuroscience technology, researchers have begun to use electroencephalography to explore the cognitive relationship between music and language. Patel's (2003) Shared Syntax Integration Resource Hypothesis (SSIRH) suggests that syntactic integration of language and music relies on shared neural regions and operations. In recent years, with the advancement of neuroscience technology, many subsequent studies have used EEG, fMRI, ERP and other related methods to verify and interpret SSIRH. Research has demonstrated that musical training exerts a regulatory influence on the integration and processing of shared resources between language and musical syntax, with an observed overlap in brain activity and cognitive systems (Koelsch & Siebel, 2005; Riia & Mari, 2011; Lutz, 2012; Rieb & Cohen, 2020; Li & Cao, 2020). Furthermore, studies have revealed certain similarities in their processing mechanisms (Sun, 2017; Rie et al., 2022; Liu et al., 2022; Wang et al., 2023). These neuroscience research results indicate that music can serve as an auxiliary tool, bringing positive transfer effects to language learning and promoting language acquisition to some extent (Nan, 2017; Sun, 2017; Deng et al., 2023; Zhang et al., 2024).

3.1.2 Research on the Influence of Music on Language Processing Mechanisms

Based on the research findings of cognitive mechanisms, this study will further explore the impact of music on language processing mechanisms. In this regard, Patel (2011) proposed the OPERA hypothesis, which encompasses five aspects: Overlap, Precision, Emotion, Repetition, and Attention. Within this framework, musical training enhances the discrimination of acoustic details (Precision) through shared neural substrates (Overlap), strengthens learning motivation (Emotion), reinforces memory and skill consolidation (Repetition), and improves focused information processing (Attention). These five conditions collectively facilitate the transfer from music to language (Choi, 2022) and enhance language processing skills (Liao et al., 2024). In other words, the abilities in pitch accuracy, melody, rhythm, and emotional expression cultivated

during musical training implicitly enhance an individual's perception of linguistic elements such as pitch, duration, and prosody, thereby naturally promoting the development of language processing abilities (Hutchins, 2018). Musical training drives adaptive plasticity in speech processing networks by satisfying these five conditions, consequently improving the brain's capacity for speech encoding. However, Choi (2022) has questioned the applicability of the OPERA hypothesis to tonal language listeners and has suggested adding two new conditions, "unsaturation" and "utilization," to refine the hypothesis.

Furthermore, research utilizing brain imaging techniques has revealed the phenomenon of cerebral functional lateralization (Sun, 2017), in which the left hemisphere demonstrates advantages in language processing, reasoning, and judgment, while the right hemisphere exhibits greater proficiency in music comprehension, creative development, and memory functions. Studies have shown that foreign language instruction through songs can enhance students' recall probability (Rieb & Cohen, 2020), working memory, long-term memory, and attention (Riia & Mari, 2011; Nan, 2017; Kumar et al., 2022; Deng et al., 2023). Consequently, musical training may serve as a mediator (Cores-Bilbao et al., 2019), effectively stimulating the creativity and working memory of the right hemisphere while enhancing the language processing and reasoning abilities of the left hemisphere, thereby promoting the synergistic interaction between cerebral hemispheres and improving the efficiency of foreign language acquisition.

In terms of underlying mechanisms, from the perspective of Behaviorist Theory, the expressive qualities of music (such as rhythm and melody) can provide learners with intuitive and repetitive stimuli. Through continuous repetition and reinforcement, musical training assists learners in establishing stable connections between linguistic elements (such as pronunciation and vocabulary) and musical features, gradually forming conditioned reflexes that lead to associative memory. This associative memory mechanism plays a crucial role in promoting the consolidation and retrieval of long-term memory, thus serving a significant function in the learning and memory processes (Chen et al., 2024).

3.1.3 Research on the Influence of Music on Language Emotional Mechanisms

After understanding the technical aspects of how music facilitates language learning through cognitive and processing mechanisms, it is essential to address its impact on the emotional dimension of learners, as language acquisition represents not merely a cognitive process but a comprehensive emotional experience. Music possesses a form of "emotional semantics," where its rhythmic patterns can convey emotional significance (Rie et al., 2022) and subtly influence listeners' moods, creating a positive learning atmosphere. According to Krashen's (1983) Affective Filter Hypothesis, pleasant background music can weaken the affective filter, reducing students' anxiety, enhancing their attention, decreasing cognitive load, and helping them overcome foreign language learning obstacles (Cao, 2019). Such a relaxed learning environment not only facilitates more effective absorption of linguistic knowledge but also contributes to language acquisition (Rieb & Cohen, 2020). Additionally, the "Music-mediated Language Learning Experience (MeLLE)" demonstrates that music can help learners improve social and emotional competencies, including strengthening cooperation, enhancing self-efficacy, and increasing mediation abilities, which further improves learning outcomes and fosters a positive educational environment (Cores-Bilbao et al., 2019).

Multiple empirical studies have further validated the role of music in promoting positive emotions and enhancing learning motivation in language acquisition. For instance, Chen et al. (2024) employed the "Technology-Enhanced Language Learning Through Music (TELLTM)" approach for English instruction, integrating multiple elements such as music, games, musical instrument performance, movement, and dance to create a positive, enjoyable, and interactive

learning environment. This methodology demonstrated significant positive effects on EFL learners' academic achievement (AA), creative thinking (CT), and self-esteem (SE). Other researchers have similarly found that students in experimental groups (including singing or music groups) exhibited more positive emotional attitudes and greater enthusiasm for learning during classroom activities or after class (Kara & Aksel, 2013; Liva & Bunau, 2015; Busse et al., 2021; Izadyar, 2023; Kaswari et al., 2023; Shakhnoza et al., 2024; Nadiyya & Suryadi, 2024), as well as superior academic performance (Valero-Esteban et al., 2024). These studies collectively indicate that the positive emotions induced by music can generate beneficial impacts on foreign language learning.

Having understood the interplay between music and language in terms of cognitive mechanisms, processing mechanisms, and emotional mechanisms, we can further explore how music can be specifically applied to various aspects of foreign language instruction, as well as how to optimize foreign language teaching strategies to enhance learners' learning outcomes. In the process of translating theory into practice, these mechanisms provide scientific evidence and directional guidance for the application of music in foreign language teaching.

3.2 Research on the Influence of Music on Foreign Language Teaching

Existing research has comprehensively analyzed the interplay between music and language, providing a theoretical foundation for investigating how music influences foreign language learning. Based on these direct and indirect research findings, the impact of music on foreign language teaching can be examined from the following seven aspects: pronunciation instruction, vocabulary instruction, grammar instruction, listening instruction, speaking instruction, reading instruction, and writing instruction.

3.2.1 Research on the Influence of Music on Pronunciation Instruction

Research evidence indicates that song training, as a structured instructional intervention, can effectively enhance learners' pronunciation accuracy and ability to imitate different accents (Pei & Ding, 2013; Deng et al., 2023; Xu et al., 2023), while simultaneously strengthening their judgment and recognition of intonation patterns (Zhang et al., 2024). These findings provide a solid empirical foundation for the application of music training in pronunciation instruction.

To further investigate the specific mechanisms through which music training affects phonological development, researchers have conducted multiple targeted empirical studies. In the field of bilingual development in children, Choi (2022) employed an experimental design, randomly assigning 43 Cantonese-English bilingual children to either a music training group or a control group. The results revealed that children who received systematic music training demonstrated significant advantages in phonological awareness tests in both languages, with particularly pronounced improvements in English phonological awareness. Furthermore, this enhancement effect was significantly correlated with the development of rhythmic sensitivity and non-verbal intelligence, providing direct evidence for the facilitative role of music training in phonological awareness.

Moreover, Johanna & Sari (2024), through organizing choir activities to assist students in learning Finnish (The Learn-Finnish-by-Singing choirs, LFBS choirs), employed a mixed-methods approach (semi-structured interviews and phonetic tests) to confirm that participants achieved substantial progress in second language phonological processing and oral expression fluency. This instructional model effectively helped learners overcome phonological barriers, enhance sound perception and pronunciation skills, and increase the automaticity of oral expression, further expanding the application boundaries of music training in L2 phonology.

Additionally, regarding the specific instructional mechanisms of music training, Muhammed (2024) adopted a mixed-methods approach to systematically investigate 48 English major learners

and 2 teachers. The study found that the repetitive characteristics and rhythmic structures of song materials can effectively promote learners' mastery of phonological elements such as pronunciation, connected speech, intonation, and rhythm, while significantly improving their precision in imitating native speaker pronunciation patterns. This research not only validates the "Precision" and "Repetition" components of the OPERA theory but also reveals the underlying mechanisms through which music training facilitates phonological development, providing more refined theoretical guidance for music-assisted pronunciation instruction.

3.2.2 Research on the Influence of Music on Vocabulary Instruction

Music training has been shown to facilitate individuals' understanding of second language vocabulary and enhance vocabulary learning outcomes (Deng et al., 2023), significantly improving vocabulary acquisition for children, adolescents, and adults. Regarding children and adolescents, song activities contribute to English vocabulary acquisition among preschool children (Coyle & Remei, 2014) while enhancing vocabulary recall abilities (Good et al., 2015). For instance, Busse et al. (2018) investigated the effectiveness of songs combined with the presentation-practice-production instructional approach on immigrant children learning German, finding that students achieved significant progress in vocabulary tests and demonstrated sustained effects in subsequent assessments. Meiliana et al. (2024) discovered that memory strategies incorporating classical music significantly improved vocabulary test scores for eighth-grade students.

Concerning adults, a study conducted by Ludke et al. (2014) indicated that singing better enabled 60 native English-speaking adult participants to remember Hungarian phrases, exhibiting higher accuracy in posttests. Somaye (2018) conducted an experiment with 105 university students, in which subjects in the full music group demonstrated significantly superior performance compared to the partial music and non-music groups in posttests (F=5.25, p=0.006). Research by Zhang et al. (2023) revealed that song learning was more effective than poetry recitation(p=0.021) for vocabulary acquisition among Chinese middle school students. The previous studies collectively demonstrate that incorporating music can more effectively enhance students' vocabulary acquisition, help increase learning motivation, reduce learning anxiety, strengthen cultural understanding, and promote long-term memory retention.

3.2.3 Research on the Influence of Music on Grammar Instruction

Research on music and grammar has employed various methodologies including electroencephalography (EEG), cognitive processing analysis, and pedagogical experiments. From an EEG perspective, researchers have found that both musical syntax violations and linguistic syntax violations elicit N5 and N400 effects. Notably, the Early Right Anterior Negativity (ERAN) generated by musical syntax violations and the Early Left Anterior Negativity (ELAN) produced by linguistic syntax violations demonstrate significant similarities in temporal progression, waveform characteristics, and scalp distribution. This finding suggests potential similarities in the brain's processing mechanisms for music and grammar (Wang & Zhang, 2013; Zhang et al., 2020; Liu et al., 2022), indicating that music training can enhance subjects' musical syntax awareness, thereby influencing their processing abilities for both language and music (Wang et al., 2023). In terms of cognitive processing, research by Li & Cao (2020) demonstrated that dissonant music increases learners' cognitive load and interferes with syntactic processing, whereas harmonious music improves mood and enhances alertness, thereby facilitating syntactic processing. These findings provide valuable insights for understanding the interaction between music and grammar.

In the realm of pedagogical experiments, Kara & Aksel (2013) conducted a study where students in the experimental group learned through singing songs containing lyrics with the

grammatical structures they needed to master. By comparing pretest and posttest scores, it was found that the average score improvement in the experimental group exceeded that of the control group (6.74 > 3.89), and in the posttest, the experimental group's average score was significantly higher than that of the control group (70.37 > 63.47). Monson (2019) conducted a two-week music teaching experiment with 22 second-grade students, teaching three songs containing six past tense verbs, with results showing improved ability in using past tense verbs in Spanish. Busse et al. (2021) found that in elementary school grammar learning, students in the singing group outperformed those in the reading group and control group in grammar acquisition, and exhibited more positive emotional states after class, indicating that singing is an effective method for improving learning efficiency, particularly beneficial for elementary school students with attention difficulties.

In summary, music training can activate and strengthen the Shared Syntactic Integration Resource Hypothesis (SSIRH) in the brain, thereby promoting the learning and mastery of linguistic syntax. The SSIRH theory posits that music and language share partial cognitive resources and neural mechanisms during syntactic processing, a perspective that has been substantiated by the aforementioned research.

3.2.4 Research on the Influence of Music on Listening Instruction

Research on music in foreign language listening instruction has primarily employed both qualitative and quantitative analyses. In terms of qualitative analysis, Listiyaningsih (2017) conducted interviews with 5 students who unanimously agreed that listening to English songs contributed to improving their pronunciation, vocabulary, and listening comprehension skills. Specifically, effective listening enhancement strategies identified included selecting appropriate songs, studying lyrics, imitating pronunciation, and repeating lyrics. Through questionnaire surveys, Afriyuninda & Oktaviani (2021) discovered that the majority of English education majors enjoyed listening to English songs and believed this practice facilitated the development of listening skills, increased vocabulary, and improved pronunciation. Additionally, it enhanced their interest in English learning while aiding in the comprehension and retention of English knowledge.

Regarding quantitative analysis, Izadyar's (2023) research confirmed the positive impact of popular music on ESL learners' listening comprehension abilities. The experimental group demonstrated significant improvement in posttest scores compared to pretest results (81.8 > 60.5), whereas the control group's improvement was not significant (60.5 > 58.5). Similarly, Shakhnoza et al. (2024) reported that after one month of musical intervention, the experimental group's average scores in listening tests increased from 33% to 50%, while the control group showed minimal improvement, rising only from 35% to 36%. Furthermore, Nadiyya & Suryadi's (2024) study revealed that English songs were more effective than traditional teaching methods in enhancing students' listening skills. These research findings collectively indicate that music, particularly foreign language songs, serves as an effective listening training tool that can significantly improve learners' listening abilities and language comprehension.

3.2.5 Research on the Influence of Music on Speaking Instruction

Research methodologies in speaking instruction bear similarities to those in foreign language listening instruction. Regarding qualitative analysis, Kaswari et al. (2023) selected 50 university students majoring in English as research subjects, collecting data through observation and interviews to thoroughly investigate the difficulties students encounter in English speaking. The study analyzed how music helps students overcome these challenges, such as improving pronunciation and intonation, enhancing vocabulary retention, increasing oral confidence, and creating a relaxed and enjoyable learning environment.

In terms of quantitative analysis, existing literature primarily quantifies and analyzes data through pedagogical experiments. Liva & Bunau (2015) conducted English speaking instruction using English songs with 38 eighth-grade students in Indonesia, implementing the study in three phases. As the research progressed, the percentage of students achieving good to excellent speaking performance increased from 5.3% to 44.7%, while the percentage of failing students decreased from 47.4% to 0%. Iroegbu & Bosede (2020) investigated the effectiveness of using nursery rhymes and songs as a strategy to enhance English speaking skills among primary school students in Nigeria. The findings revealed that, compared to traditional teaching methods involving repetition or copying teacher-provided content, the instructional strategy utilizing nursery rhymes and songs was significantly more effective in improving students' English speaking abilities ($p < 0.05$). Agustina (2024) employed Classroom Action Research (CAR) methodology using English songs as a teaching medium, aiming to enhance eighth-grade students' speaking proficiency and learning motivation. Through comparison of pretest and posttest mean scores, students demonstrated significant improvement in their average performance ($79 > 64$).

3.2.6 Research on the Influence of Music on Reading Instruction

Research on the impact of music training on reading primarily employs instructional experiments, eye-tracking technology, and electroencephalography (EEG) techniques. However, findings in the field of reading have revealed two divergent perspectives: one suggesting that music training facilitates reading development, while the other posits that it may impede reading performance.

In the realm of instructional experiments, researchers have identified that music training can enhance reading abilities (Tierney & Kraus, 2013). For instance, Mora et al. (2015) investigated the effects of music and phonological training on foreign language reading proficiency. The children in the music-phonological training group, despite having lower musical abilities prior to the intervention, demonstrated superior progress in reading skills compared to the control group, indicating that music may serve as a facilitative factor in reading development.

Regarding eye-tracking technology, Liao et al. (2022) utilized eye-tracking methodology to examine how musicians process English sentences containing grammatical errors. Their findings revealed that musicians exhibited more dispersed eye movement patterns when reading such sentences, suggesting that their reading path planning was more susceptible to grammatical errors, necessitating frequent visual adjustments. This phenomenon may be attributed to the transfer of music reading experience to the visual processing of English words, while also indicating that music training enhances the flexibility of eye movement planning, enabling more efficient detection of grammatical errors during reading.

In the domain of neuroscientific research concerning the effects of background music on reading comprehension, two opposing viewpoints exist within the academic community. On the one hand, empirical evidence suggests that background music may exert an interfering effect on reading comprehension. Sun et al. (2024) proposed that individuals with music training tend to recruit overlapping cognitive resources when simultaneously processing musical and linguistic information. This resource competition may lead to attentional dispersion, consequently diminishing reading comprehension efficiency. Du et al. (2020) further substantiated this claim using event-related potential (ERP) technology, demonstrating that both high-arousal and low-arousal background music elicited significantly increased N400 component amplitudes. This neurophysiological index reflects heightened difficulty in semantic integration processes, indicating that participants required greater cognitive resources to integrate new information into existing knowledge frameworks. These findings confirm a competitive resource relationship between background music and reading comprehension tasks, increasing cognitive load and

interfering with semantic processing mechanisms, ultimately resulting in diminished reading comprehension efficiency.

Conversely, substantial research evidence supports the facilitative role of music in reading comprehension. Pantaleo et al. (2024), through comparative analysis of experimental data from 34 professional musicians and 26 non-musician participants, identified distinct advantages in reading abilities among musicians. Specifically, musicians demonstrated significantly higher syllables-per-second rates in lexical, non-lexical, and text reading tasks compared to non-musicians. Furthermore, they exhibited shorter reaction times and enhanced accuracy in note and word recognition tasks. Concurrently, musicians displayed superior attentional concentration abilities during reading tasks, demonstrating more effective inhibition of distracting information. Electroencephalography analysis revealed that musicians exhibited greater N170 component amplitudes during visual word recognition processes, indicating stronger activation in the right occipitotemporal cortex. Additionally, significantly increased P300 component amplitudes reflected enhanced perceptual processing capabilities and selective attention mechanisms among musicians.

3.2.7 Research on the Influence of Music on Writing Instruction

Current research mainly focuses on the influence of background music on writing motivation and fluency. Researchers have found that allowing students to choose their favorite music can enhance their writing motivation and help them create a positive learning environment (Donohoe & McNeely, 1999), indicating that background music has a promoting effect on second language writing (Cho, 2015). Some researchers have also found a marginal significant relationship between music engagement and writing quality, but there is no significant relationship with writing fluency (Aryanto, 2016). However, some researchers have found that listening to background music while writing may have a certain hindering effect on writing fluency (Ransdell & Gilroy, 2001).

In the field of writing, there are some indirect research results that can be transformed into practical writing teaching. The cross-media narrative technique of “novel-music” mentioned in literary research can be introduced into foreign language writing teaching to achieve musical aesthetics in both content and form of the text (Long, 2018; Werner et al., 2020; Wang, 2021). For example, the application of counterpoint in the field of music has been borrowed into novel creation, and this writing technique has also been applied to the construction and modification of foreign language literary works (Long, 2018). In addition, the “ambiguity of meaning” in music may surpass words in terms of expressive power (Hoshino & Miyazawa, 2016; Zhang, 2018), providing richer emotional expression methods for foreign language writing. These studies suggest that foreign language writing can draw on music creation techniques to broaden its creative horizons. In addition, music has its unique advantages in stimulating emotions and enriching imagination, which can enhance students’ creative expression ability in foreign language writing to some extent.

4. Current Research Limitations and Future Research Directions

4.1 Limitations of Current Research

Existing literature suggests that there is a significant interaction between music and language, which has a positive influence on foreign language teaching. However, research in this field is still in its infancy, and as an interdisciplinary field, there are still certain limitations in research perspectives, content, and methods (Cao, 2019), which urgently need to be further improved in future research. Based on the existing literature review, three limitations of current research in this field are summarized as below.

(1) Limited diversity in music and language types. As early as 2014, Sun et al. (2014) pointed out that existing research on music and foreign language teaching primarily focuses on Western languages and music, raising questions about the universality of its conclusions. However, the current research landscape shows that the field has yet to achieve breakthrough progress, with most studies still concentrating on Western languages and music, while research on other languages remains relatively scarce. Furthermore, existing studies predominantly focus on the application of lyrical music in foreign language teaching, whereas exploration of instrumental music in this context appears limited. Particularly scarce is research examining the specific effects of different musical instruments and musical styles on students' foreign language proficiency (Cao, 2019).

This research bias toward Western languages and music significantly impacts the cross-cultural applicability of conclusions. From a linguistic perspective, current studies primarily examine non-tonal languages such as English, neglecting the potential unique connections between music and tonal languages like Chinese and Thai. In tonal languages, pitch variations carry semantic functions, which shares an essential connection with melodic elements in music. Consequently, the effects of musical training on tonal perception and production may exhibit completely different mechanisms compared to non-tonal languages. From the standpoint of musical types, research excessively concentrates on Western popular and classical music, overlooking the potential value of various ethnic traditional music in foreign language teaching. For instance, the pentatonic scale of traditional Chinese music may share intrinsic connections with the Chinese tonal system, yet these cultural specificities remain underexplored in current research.

(2)Limitations in foreign language teaching research. Current research, both domestically and internationally, remains confined to the level of foreign language input, whereas foreign language learning should encompass both input and output processes. Although previous studies have extensively investigated the impact of music on foreign language teaching—exploring its effects on pronunciation, vocabulary, syntax, and reading—these studies have predominantly focused on the input stage of learning, merely assessing learners' reception and comprehension of second language knowledge. For instance, in vocabulary and grammar acquisition, research typically evaluates learners' recognition and memorization of lexical items and grammatical structures without further examining whether learners can appropriately and accurately apply this knowledge in communicative contexts, such as writing. Furthermore, systematic research integrating music with writing or translation remains in its nascent stages or is virtually nonexistent in both domestic and international scholarship.

(3) Enhancement of methodological richness and depth in research. The literature review indicates that while research in the field of music and language teaching has begun to integrate multidisciplinary perspectives from neuroscience, psychology, and linguistics, current research paradigms remain largely confined to traditional methodological frameworks such as questionnaire surveys, in-depth interviews, pretest-posttest comparisons, and teaching experiments. Specifically, existing studies exhibit significant methodological deficiencies: first, an overreliance on cross-sectional pretest-posttest research designs, which fail to capture the long-term developmental trajectories and dynamic mechanisms of music and language abilities; second, a lack of systematic longitudinal studies, rendering it impossible to effectively reveal the cumulative effects of music training on language development and its critical period influences; third, monotonous approaches to data collection, predominantly employing single data sources such as self-report scales or standardized tests without multi-data triangulation; fourth, the absence of a systematic assessment framework to comprehensively measure students' integrated

musical and linguistic competencies. This methodological monogeneity not only constrains the internal reliability and external validity of research but also impedes in-depth elucidation of the complex mechanisms underlying music and language teaching.

4.2 Future Research Recommendations

Three research suggestions are proposed to address the limitations of music in foreign language teaching.

(1)Expanding the scope of music and language research. Future studies should transcend the limitations of Western traditions and systematically explore the interactive relationships between Eastern languages and music. Specifically, a comparative study could be conducted to examine the differential effects of Japanese traditional music and Western popular music on the acquisition of intonation among Japanese language learners. Through an experimental group design, the disparity in the mastery of high-low pitch patterns in Japanese between the two learner groups can be measured, and the correlation between music genres and intonation acquisition analyzed. Additionally, the practical efficacy of Chinese classical music in teaching Chinese tones warrants further investigation. A pretest-posttest design could be employed to assess the differences in accuracy rates for the discrimination and production of the four tones of Mandarin between an experimental group receiving instruction assisted by Chinese classical music and a control group following traditional teaching methods. Furthermore, the application of pure music in foreign language pedagogy merits in-depth exploration. For instance, experiments could be designed to verify the impact of music with different emotional qualities (such as Mozart's cheerful sonatas versus Chopin's melancholic nocturnes) on the acquisition of emotional vocabulary in English. Through vocabulary retention tests and assessments of emotional expression accuracy, the relationship between musical emotion and vocabulary learning outcomes could be quantified.

(2) Expanding the scope of foreign language teaching research. Current studies predominantly focus on the influence of music on language input, while relatively little attention has been paid to its impact on language output, particularly in the context of writing and translation instruction. Greater emphasis should therefore be placed on the application of music in these areas. Given its capacity to convey emotions and nuanced meanings in a subtle yet powerful manner, future research should extend beyond existing lexical and syntactic investigations to explore the role of music in writing and translation. Potential research dimensions may include the effects of music on lexical richness and syntactic complexity in written or translated outputs, its role in shaping writing or translation style, as well as its application in rhetorical strategies.

(3) Enriching methodologies in foreign language teaching research. While integrating existing findings from brain imaging technologies, SLA theories, musicology, and psychology, researchers should also seek to explore other interdisciplinary and comprehensive research approaches.

For instance, researchers may employ corpus analysis tools (e.g., AntConc, Wmatrix) to systematically collect learners' oral, written, or translated samples before and after musical training, thereby constructing a specially annotated learner corpus. By conducting comparative analyses of linguistic features—such as lexical richness, syntactic complexity, and the frequency of pragmatic markers—before and after the training, and complementing these with qualitative methods, it becomes possible to gain deeper insights into the cognitive neural mechanisms and pathways through which musical training influences foreign language development.

Furthermore, by leveraging generative artificial intelligence (GAI), researchers could develop customized music integrated with foreign language learning—for example, composing songs tailored to specific vocabulary and grammatical structures—while using GAI to monitor learners' progress in both music and language acquisition. The establishment of individual electronic

learning portfolios would enable the integration of learning analytics and adaptive learning, thus providing technological support for personalized foreign language instruction.

Additionally, the synchronized use of eye-tracking and electroencephalography (EEG) can capture both learners' visual attention patterns and electrophysiological brain activity simultaneously. Through multimodal data fusion and analysis, this approach can yield multi-layered evidence regarding the cognitive neural mechanisms by which musical training influences language processing.

5. Conclusion

This article reviews 65 research literature on the influence of music on foreign language teaching, analyzing the interactions between music and language, the effects of music on foreign language instruction, and various application methods. It also identifies research limitations and offers suggestions for future research. Studying foreign language teaching from a music perspective not only provides new theoretical perspectives and practical methods for the development of this field, but also has important significance for enhancing learners' foreign language skills, strengthening learning motivation, and enriching teaching methods. Therefore, in-depth exploration of the potential application of music in foreign language teaching has a profound influence on promoting innovation in foreign language education and improving teaching quality.

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References

1. Afriyuninda, E., & Oktaviani, L. (2021). THE USE OF ENGLISH SONGS TO IMPROVE ENGLISH STUDENTS'LISTENING SKILLS. *Journal of English Language Teaching and Learning*, 2(2), 80-85. https://www.mendeley.com/catalogue/d3749ae2-5abb-30f7-a6ee-22f9dbc3d292/
2. Agustina, R. (2024). The Use Of English Songs To Improve Students' Speaking Skill At The Eight Graders Of Junior High School 9 Metro (Doctoral dissertation, IAIN Metro). https://repository.metrouniv.ac.id/id/eprint/9232/
3. Aryanto, C. B. (2016). The effects of music with lyrics on writing fluency and quality. *Indonesia: Atma Jaya Catholic University of Indonesia.* https://www.researchgate.net/publication/324964025
4. Busse, V., Jungclaus, J., Roden, I., Russo, F. A., & Kreutz, G. (2018). Combining song—and speech-based language teaching: An intervention with recently migrated children. *Frontiers in Psychology*, 9, 2386. https://doi.org/10.3389/fpsyg.2018.02386
5. Busse, V., Hennies, C., Kreutz, G., & Roden, I. (2021). Learning grammar through singing? An intervention with EFL primary school learners. *Learning and instruction*, 71, 101372. https://doi.org/10.1016/j.learninstruc.2020.101372

6.Cao, R. (2019). A review of international research on the correlation between foreign language competence and music strategy. *Foreign Language World*, (02), 90-96. https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CO-mA4iRHiS7d_F74cfYdvMYofdfZuOrNsAZxzknYbB9XkoQgpYCpGIxPvUbqu7Rw6aysnzVxJ1X4N2gcpvQGozey-FriuujsfgDDojWIBvtGubOfJvB0TPkudHW5F_bmFQij4VUdLpdD4gn-MYmiSOhRmcm7rqrBTmLUAM23Ld3w==&uniplatform=NZKPT&language=CHS

7.Chen, M., Mohammadi, M., & Izadpanah, S. (2024). Language learning through music on the academic achievement, creative thinking, and self-esteem of the English as a foreign language (EFL) learners. *Acta Psychologica*, 247, 104318. https://doi.org/10.1016/j.actpsy.2024.104318

8.Cho, H. (2015). Is background music a distraction or facilitator?: An investigation on the influence of background music in L2 writing. *Multimedia-Assisted Language Learning*, 18(2). https://www.kci.go.kr/kciportal/ci/sereArticleSearch/ciSereArtiView.kci?sereArticleSearchBean.artiId=ART002000155

9.Choi, W. (2022). What Is ‘‘Music’’ in Music-to-Language Transfer? Musical Ability But Not Musicianship Supports Cantonese Listeners' English Stress Perception. *Journal of Speech, Language, and Hearing Research*, 65(11), 4047-4059. https://doi.org/10.1044/2022_JSLHR-22-00175

10.Cores-Bilbao, E., Fernández-Corbacho, A., Machancoses, F. H., & Fonseca-Mora, M. C. (2019). A music-mediated language learning experience: Students’ awareness of their socio-emotional skills. *Frontiers in Psychology*, 10, 2238. https://doi.org/10.3389/fpsyg.2019.02238

11.Coyle, Y., & Gómez, G., R. (2014). Using songs to enhance L2 vocabulary acquisition in preschool children. *Elt Journal*, 68(3), 276-285. https://doi.org/10.1093/elt/ccu015

12.Deng, S., Yang, H., Zuo, K., & Zhang, J. (2023). The effect of musical experience on second language processing. *Advances in Psychological Science*, (11), 2040-2049. https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CP6o5BdR-3YVbeYXwct85VvijHWxJbY53WeNMsjOq3kiXbX9rrbasX0ACreazXWdhy4_NtGkKKkv6ZQMDTPkyCnmDAyW-AYQBAriU3y1ql_YVjYdXTRRpKvGgw3LvPj6412kCi_VWwrwbwuBYpj1AJKeOyx_E1fza3XWyhjVePErQ==&uniplatform=NZKPT&language=CHS

13.Donohoe, R., & McNeely, T. (1999). The Effect of Student Music Choice on Writing Productivity. https://files.eric.ed.gov/fulltext/ED448472.pdf

14.Du, M., Jiang, J., Li, Z., Man, D., & Jiang, C. (2020). The effects of background music on neural responses during reading comprehension. *Scientific Reports*, 10(1), 18651. https://www.nature.com/articles/s41598-020-75623-3

15.Du, S. (2009). Reflection upon the Music Acquiring Device in Relation to the Origin of Language. *Foreign Language Research*, (01), 16-21. https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CMsW03SCwwoUnkmpf0mJvoJapg0K4ne6aSymugqC5iGnDq3c43jgx4Rv4Z3UkH6TQayghGO24Af6ndvLSvbR7Ln-sx_KeStl2FPRKO2kpdBCxP3EGeGHlINMDcANNAZeL33Ph0s16U8dObpiWRVf__zvA8-eNLDEv12Bj6Q6_f3CA==&uniplatform=NZKPT&language=CHS

16.Hoshino, E., & Miyazawa, S. (2016). Comparative studies of music and languag. *Journal of Music Perception and Cognition*, (1), 11-31. https://doi.org/10.32199/jsmpc.22.1_11

17.Hutchins, S. (2018). Early childhood music training and associated improvements in music and language abilities. Music Perception: An Interdisciplinary Journal, 35(5), 579-593. https://online.ucpress.edu/mp/article-abstract/35/5/579/109945/Early-Childhood-Music-Training-and-Associated

18. Iroegbu, V. I., & Bosede, I, F. (2020). Exploring rhymes and songs strategies in improving spoken English language skills among lower primary school pupils. *IOSR Journal of Research & Method in Education*, 10(2), 5-10. https://www.iosrjournals.org/iosr-jrme/papers/Vol-10%20Issue-2/Series-3/B1002030510.pdf
19. Izadyar, M. (2023). The effects of pop music on improvement of listening comprehension skill in English language as a second language acquisition. *Research Journal of Management Reviews. Vol*, 8(2), 28-35. http://www.rjmrjournal.com/fulltext/paper-09062023174714.pdf
20. Johanna, L., & Sari, L. (2024). Singing Language–Integrating Second Language Learning into Choir Practice. *Music & Science*, 7, 20592043241244542. https://sage.cnpereading.com/paragraph/article/?doi=10.1177/20592043241244542
21. Kara, Z. E., & Aksel, A. S. 2013. The effectiveness of music in grammar teaching on the motivation and success of the students at preparatory school at Uludağ University. *Procedia-Social and Behavioral Sciences*, 106, 2739-2745. https://www.sciencedirect.com/science/article/pii/S1877042813049379
22. Kaswari, Y., Fairus, R. N., Abdullah, M. A., & Jaelani, S. R. (2023). The Impact of Music in Improving English Speaking Fluency. *Pendekar: Jurnal Pendidikan Berkarakter*, 1(4), 290-300. https://doi.org/10.51903/pendekar.v1i4.340
23. Kumar, T., Akhter,S. ,Yunus,M. , M. & Shamsy, A. (2022). Use of Music and Songs as Pedagogical Tools in Teaching English as Foreign Language Contexts. *Education Research International*. https://doi.org/10.1155/2022/3384067
24. Li, H. & Cao, Y. (2020). Language and music share the same cognitive processing system: evidence from Chinese relative clauses. *Foreign Language Education*, 06, 32-36+53. https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CPAIPDDLUKVoMVxSTLvP6LccmTjoGM8kiKiKgAJQGZP9c95JJz-alZ1zJgKe1KDkrcJhstJUfdvvDGIc9JE2Zj72AKpOT7ewlJRIFvDVR6yxSuQiUTwFAb1B_KfJ77Uj8jlvd32XxiDhPATNFtunD8SCCPcwfDgugZwnMaNtCJ_hg==&uniplatform=NZKPT&language=CHS
25. Liao, W., Li, S. T. K., & Hsiao, J. H. W. (2022). Music reading experience modulates eye movement pattern in English reading but not in Chinese reading. *Scientific Reports*, 12(1), 9144. https://www.nature.com/articles/s41598-022-12978-9
26. Liao, Y., Lu, X., & Zhang, W. (2024). Meta ─ analysis of the effects of music training on language attainment. *Psychological Research*, (02), 140-152. https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5COY_kvcraSFjIcf497hoL1uKNfpmecqLKw9HVxTBFLYvbthRcXPxlcOBN1MOgXkERwerOw9F3mH_lP2PDD3QRxZRJtMIguzsvc76W9QY7lRFaGKEn_llPLW0BWvLycyVnqYxVQ10yaUWEnBBj14WoR1CuVFJS5QmgNcA9rpVMEz-A==&uniplatform=NZKPT&language=CHS
27. Listiyaningsih, T. (2017). The influence of listening English song to improve listening skill in listening class. *Academica: Journal of Multidisciplinary Studies*, 1(1), 35-49. https://doi.org/10.22515/academica.v1i1.601
28. Liu, J., Wang, S., & Yu, G. (2022). A Review of Cognitive Neuroscience Research on the Relationship between Language and Music. *Journal of PLA University of Foreign Languages*, (06), 58-65. https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CN_wM8cveRzaXPuqUcFUyK0RbHAjt2ow91Wnq6wy1k6GB8QTwxt-wsDTlmR2ns5UJXq8o7fMCaDU6y5IMA_GmYOl9oa6WdmnNlU3MPO_OMtukLitzoLntKU0kQdE9NvFDF_CVjPwuE-h4xdSYbVn1GTIOVDF2hTv1vYeB6TY7UfMQ==&uniplatform=NZKPT&language=CHS
29. Liva, C., & Bunau, E. (2015). IMPROVING THE STUDENTS'SPEAKING ABILITY THROUGH ENGLISH SONG. *Jurnal Pendidikan dan Pembelajaran Khatulistiwa*

(JPPK), 4(2). https://jurnal.untan.ac.id/index.php/jpdpb/article/view/9029
30.Long, D. (2018). "Andersstreben": On Music Narratives of Western Novels. *Foreign Literature Studies*, (06), 115-313. https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CPgOgCNdLRWhUWhBC6BPo8oo99Lp5aKGK-io2l1mrUKeyGKCe_shu5bds7nRX_waob7-oh285AsmuFOYFCEKBl71pPf1sLNzoU8OtkZO2NaqaBza6uaJb1EamxWmuZeSWpXqMoy0yIVHo5doXx3sv7yI3LnEhLRQZPZasLT0LsG_A==&uniplatform=NZKPT&language=CHS
31.Ludke, K. M., Ferreira, F., & Overy, K. (2014). Singing can facilitate foreign language learning. *Memory & cognition*, 42, 41-52. https://link.springer.com/article/10.3758/s13421-013-0342-5
32.Lutz, J. (2012). The relationship between music and language. *Frontiers in psychology*, 3, 123. https://doi.org/10.3389/fpsyg.2012.00123
33.Meiliana, D., Satria, I., & Martina, F. (2024). The Influence of Memory Strategy used with Classical Music on Students' Capability in Memorizing Vocabulary. *Jurnal Kajian Ilmu Pendidikan (JKIP)*, 5(2), 229-234. https://doi.org/10.55583/jkip.v5i2.996
34.Monson, K. 2019. Teaching grammar through music[J]. *School of Education and Leadership Student Capstone Theses and Dissertations,* 4475. https://digitalcommons.hamline.edu/hse_all/4475/
35.Mora, F., Jara Jiménez, P., & Gómez Domínguez, M. (2015). Musical plus phonological input for young foreign language readers. https://doi.org/10.3389/fpsyg.2015.00286
36.Muhammed, A. A. (2024). Exploring the Efficacy of English Songs in Enhancing English Pronunciation Skills among Charmo University's English Department Students. *The Scientific Journal of Cihan University–Sulaimaniya*, 8(1), 246-273. https://doi.org/10.25098/8.1.34
37.Nadiyya, R., & Suryadi, S. (2024). The Power of English Music to Improve Students' Listening Skills. *Ideguru: Jurnal Karya Ilmiah Guru*, 9(2), 683-688. https://jurnal-dikpora.jogjaprov.go.id/index.php/jurnalideguru/article/view/772
38.Nan, Y. (2017). The facilitation effect of music learning on speech processing. *Advances in Psychological Science*, 25(11), 1844-1853. https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CP6YodV9Sxmv1vVxMFeATCqF-40RByLev7ZdbnWWBNsMx5htyuHCHOZ35L1ywNZfgf2_AT0rh_4Ky5ra1-fMLyjypshYavNnBOWi712bdMyEMQlkFNMiTRhokQ8YjFlCnfp_mfLJB3RhfDLlK8PVzx0pbUCtqa2F22gLqnKwfCerg==&uniplatform=NZKPT&language=CHS
39.Pantaleo, M. M., Arcuri, G., Manfredi, M., & Proverbio, A. M. (2024). Music literacy improves reading skills via bilateral orthographic development. *Scientific Reports*, 14(1), 3506. https://www.nature.com/articles/s41598-024-54204-8
40.Patel, A. D. (2003). Language, music, syntax and the brain. *Nature neuroscience*, 6(7), 674-681. https://www.nature.com/articles/nn1082
41.Patel, A. D. (2011). Why would musical training benefit the neural encoding of speech? The OPERA hypothesis. *Frontiers in psychology*, 2, 142. https://doi.org/10.3389/fpsyg.2011.00142
42.Pei, Z., & Ding, Y. (2013). An Empirical Study on the Influence of Musical Aptitude on English Phonological Skills of Chinese University Students. *Foreign Language World*, (01), 36-44. https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CNPhbp23E1q3VteK2V8Cs2SAy6Ok2OtgT164ELmc-ZqNcATMGzzu2dhlz6114ih4fAJ7g5i2Zto_4FEpKGmFMxhWtrVcoFymExxPzDC18gWsNiODGhKj8rdQy4NeA198v3950RArdZ9OoUASi8BrDBFOSQv0Wi19cLxac9nREGpXw==&uniplatform=NZKPT&language=CHS

43.Ransdell, S. E., & Gilroy, L. (2001). The effects of background music on word processed writing. *Computers in human behavior*, 17(2), 141-148. https://www.sciencedirect.com/science/article/abs/pii/S0747563200000431
44.Rie, A., Vivian, L., & Steven, B. (2022). The Neural Basis of Tonal Processing in Music: An ALE Meta-Analysis. *Music & Science*, 5. https://www.neuroarts.org/pdf/tonality-ALE.pdf
45.Rieb, C., & Cohen, J. (2020). The impact of music on language acquisition. *Mid-Western Educational Researcher*, 32(4), 350-368. https://doi.org/10.69760/zma1bn56
46.Riia, M., & Mari, T. (2011). The interplay between musical and linguistic aptitudes: a review. *Frontiers in psychology*, 2, 321. https://doi.org/10.3389/fpsyg.2011.00321
47.Shakhnoza, I., Zamira, S., & Asqar, O. (2024). IMPROVING LISTENING SKILLS OF ELEMENTARY SCHOOL STUDENTS THROUGH MUSIC AND SONGS. *Western European Journal of Linguistics and Education*, 2(4), 61-65.
https://westerneuropeanstudies.com/index.php/2/article/view/582
48.Somaye, P. (2018). The Role of Music in Second Language Learning. *Studies in Literature and Language*, 17(1), 75-78.
https://www.researchgate.net/publication/336680938_The_Role_of_Music_in_Second_Language_Learning
49.Sun, X. (2017). A Review of Music Ability and Second Language Acquisition Research in the Context of Neuroscience Development. *Foreign Language Education*, (06), 64-69.
https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5COvxh82Ey7D7v_BTyKVYT9Bv-SyUcwQqTJHYWOZV13ES16EhmLhXEyaMKm1L0IWOQk8loWB0rcrS-BSH0nJQeloOwWofwFnEpOYzLQHTcs9K3g2ITmFDKUNvuGVthRiPg6gwkBCBI-IaWZ3iXiitw_GRVVigtG6w9xsQo5lBdTcJQ==&uniplatform=NZKPT&language=CHS
50.Sun, X., Xin, B., & Uwe, S. (2014). Language and Music: A New Perspective on Language Cognition Research. *Contemporary Linguistics*, (02), 175-185+252.
https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CP8tJKlTSTMi44H0LA0IazUsCFzopHwsG2FWimZDT2tfXJMSxhu_wXB0IJaqlMEx6uTEcGYxFJanYPzKMdLhCEBGosoj3hfZ7MioNA5EoLd4vrUGgPP089napNsJfOn_xwrBsI6uBctpqhIfa_wbrEZ0DoUHj6bLiqtAB_BSiLaPQ==&uniplatform=NZKPT&language=CHS
51.Sun, Y., Sun, C., Li, C., Shao, X., Liu, Q., & Liu, H. (2024). Impact of background music on reading comprehension: influence of lyrics language and study habits. *Frontiers in Psychology*, 15, 1363562. https://doi.org/10.3389/fpsyg.2024.1363562
52.Tierney, A., Kraus, N. (2013). Music Training for the Development of Reading Skills. *Progress in Brain Research*, 207209-241. https://doi.org/10.1016/B978-0-444-63327-9.00008-4
53.Valero-Esteban, J. M., Alcover, C. M., Pastor, Y., Moreno-Díaz, A., & Verde, A. (2024). Emotions and music through an innovative project during compulsory secondary education. *Heliyon*, 10(4). https://www.sciencedirect.com/science/article/pii/S2405844024017961
54.Vaneechoutte, M., & Skoyles, J. R. (1998). The memetic origin of language: modern humans as musical primates. *Journal of memetics-evolutionary models of information transmission*, 2(2), 129-168. http://cfpm.org/jom-emit/1998/vol2/vaneechoutte_m&skoyles_jr.html
55.Wang, P. & Zhang, L. (2013). The Research on the Relationship of Music and Language on Three Levels: Syntax, Semantics and Perception of Pitch and Rhythm. *Journal of Psychological Science*, 36(5), 1078-1084.

https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CMfXVz-xuS_QLlRXzqHlxP7Gj1DXrj7butvi5tur-urmACng389NvT3lEp0wfrGP8h0KSi0VRUfpb13vDILD8RpuIp9N-yYDolQUXfpSOi0vZuKuy6CbvO-iBssshyo8PqykGmISHqzZuTxwUcxa0PNR_5wuHGHp1gTuU-0VcO9Fw==&uniplatform=NZKPT&language=CHS
56.Wang, X. (2021). “The Musical Web”: The Imitation of Wagner’s Symphony in Thomas Hardy’ s Novels. *Foreign Literature Studies*, (04), 99-109.
https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CPx1NOGJCnc5HJVWvfEwsEzqgXTRCz6M0aH5iMKg7VCv1tH5nbEZceWGERga7CAUZuKI343ipk9AThomCNs52ge6iSFsbqLT6UgHe5mNfFQj9vLNWYzkYcCk4FgC9G73568dUmdEy-68anqxtSrrHdcDZ12RFR0IjANmFbmxrj0Kg==&uniplatform=NZKPT&language=CHS
57.Wang, X., Li, D., Li, Y., & Song, D. (2023). ERP Evidence for the Effect of Music on Language Processing. *Chinese Journal of Applied Psychology*, 29(03), 280-288.
https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CNBqVy8Aum3-ZfgMNWTW4sC8E9z_-6QCwyXI9RG8q--m9vFrZN-CwrH_wx1uiZsQ5cdhcBtiePrniiP2xeMrUoPC8FT6tA97ABGiM8gv5TzdjaIuqO54S7gMRFJzKqcv8Z_Qtnd5DFUo5reZxQmRABffcKokCwmlI6OTXTqVkEwSw==&uniplatform=NZKPT&language=CHS
58.Werner, W., Pei, Y., & Shan, J. (2020). Literature and Music: Mapping an Intermedial Filed. *Comparative Literature in China*, (03), 13-37.
https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5COB5MIN1taP4MUlF8Ds5ohAd80wsRsHI8lNE0-qEQ0o91ZUiqBv7jPDLSGcSPnyG77RVFt_MVfRjEuIK2-1Lafr43R5MmDVgxiFCyYN_4GZEfakQ2uq5JAfsCsIDmTbNSv6PbDhnwxkBaTWh0thouxFDTvGE7XkOtvPYy6D7seh0w==&uniplatform=NZKPT&language=CHS
59.Xiao, Z. (2023). Review and Reflection on Linguistic-musicology Research. *Chinese Music*, (05), 189-199.
https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CNg3R8pHrMj3v2t8FRRVelnfcfCMyp70R6nbYQ8zMbcP6wQnw8ut8KwNuW-qWRThvj0dN9ihDEtlFhsBpSoXCl9XwC7-5CDlaMf9e8L5jYMlztqRtdK7ctrom3OSfBu7TNg-DRHS6Yo8h4QFxbN_R1HUvrVqurdKu0Fi1pRiFbXWA==&uniplatform=NZKPT&language=CHS
60.Xu, Y., Cheng, M., Shao, H. & Li, W. (2023). The Relationship Between Music Learning and Phonological Awareness: The Evidence from Meta-analysis, *Psychology:Techniques and Applications*, (12), 705-721.
https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CPJ8hIN-__Zn2dCzoBho5b_cGcOH-iX7srAoPoRY9kpaswFqmR-1djUSIGHspqHcnTw-ZpX8k_XqPYSli8fDJXmAeD7SM534Vvz8OSTad2NhlMyWcNURcdMj3jcv4rStEeufPr2QNSLZFFG6mxBqFzc1JPkmn0V4EUMwR762iRH6Q==&uniplatform=NZKPT&language=CHS
61.Zhang, J., Liang, X., Chen, Y., & Chen, Q. (2020). The cognitive mechanism of music syntactic processing and the influence of music structure on its processing. *Advances in Psychological Science*, 06, 883-892.
https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CNf4IeOm_vGLbYtdzAJgfphXjl5pv8AALVN7Z0H7plTAG1ky4lMRL6TlgInZI01BAhhVXwtOL4w8j9Qxdp12U9obwedEMtB65xFcqU4tXtlv4F9BnIAXR588Nb9VQpzSUtBo5wFGDi6uxysUirZxsdkBJU_irKt2YzwZlNcF7tP6g==&uniplatform=NZKPT&language=CHS
62.Zhang, J., Xue, Y., Feng, Y., Gao, P., & Chen, Q. (2024). The Impact of Music Learning on Language Prosodic Processing and Its Underlying Mechanisms. *Journal of Psychological Science*, (01), 21-27.
https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CMjnC9SR3vTDXLvonOFdgwCJqj7Y91BSa8OVr6Ac2dpM6N_YvZdcwNa3KREy6AOD8zC6uWzQIoCFpcdHEKpfv3sxQJ7SxTmr23

Kzm-DthZM-FsKbOXH5FnKNyZ_tC8h7mcEDVYLs29mX0L5wEM0vpbjvW6C1rDgwsjQ3pfD4t--Ag==&uniplatform=NZKPT&language=CHS

63.Zhang, L. (2018). The 'Voice' War of Ideology - Music Writing in Novels. *Foreign Literature*, (04), 134-141. https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CNM1ZEgJK0H9Ckqp6R6J9BLRMbHI-voo2ou_4f1AuCfwaE7XPVQuBCuFU9MPL0pj2SRLLwSqqQDjCGqQ7vnyvjDO8e6SsNXko6MvCQkIe0YVKFE87Ev6LUyemLfJAOZsdZTzqjQhQxa3ISgjQYvlyjpFQbRXNcQr26s4m-Ch6eqYA==&uniplatform=NZKPT&language=CHS

64.Zhang, S., & Wang, S. (2016). Cognitive Linguistics Research on Music Symbols: A Basic Level Categorization Perspective. *Journal of Xi'an International Studies University*, 24(03), 60-64. https://kns.cnki.net/kcms2/article/abstract?v=Y2E-z2Sa5CMPBR3JsJKMHCc9eb9RAO89Iyge-WrXqoNJu-UJG_hqgRXsaz-4KmOEJ5l_nJj8wuzv8Rn-HgVxrGZRgR8ON9BrbqoE9e7w1IoeM10OECTs3U3PzrsrCxH_BUOvysJbcmqmNgTVJ4UnshPNgLRLUUXrD_E7oIwX2bCBgn7-WEIrOQ==&uniplatform=NZKPT&language=CHS

65.Zhang, Y., Florence, B., & Pilar, P. (2023). Singing songs facilitates L2 pronunciation and vocabulary learning: A study with Chinese adolescent ESL learners. *Languages*, 8(3), 219. https://www.mdpi.com/journal/languages