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Exploring “Informal Learning” in Popular Music Education: Comparative Designs, Attitudes, Theoretical Frameworks, and Pedagogical Implications

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Abstract

"Informal Learning" is a major innovation to introduce the informal music learning method of popular musicians into school music classroom practice, to let students experience and feel the music. Since it was introduced into school classrooms in 2006, it has attracted great attention in the field of music education. Nevertheless, the application is not wide. Therefore, this study was conducted to explore the main characteristics and themes on the application of informal learning in popular music education, understands the application of "informal learning" in music education from published scientific literatures. A systematic literature review was conducted using Web of Science and Scopus databases since 2006. The results from this analysis revealed that themes included: (i) impact, (ii) teachers' and students' attitudes, (iii) suggestion of informal learning in popular music education. The results of the study showed that "Informal Learning" has a significant impact on students' autonomy and creativity in the music classroom. It empowers students to have the autonomy to choose music and construct musical meanings. This study also found that "Informal Learning" has an impact on the paradigm shift of teachers' teaching strategies.

Keywords: Popular Music Education, Informal Learning, Lucy Green, Systematic Literature Review.

Introduction

Informal music learning is a new perspective in the field of music education, especially popular music education, where learning about music outside the classroom can be achieved through repeated listening and "efficient" imitation (Guo, 2016), and the incorporation of popular music and informal learning practices into school music education has received much attention in recent years. Popular music has long been considered a means to classical or folk music education, and the value of popular music itself is overlooked. Several studies have shown that informal learning is effective in terms of students' learning processes about popular music and in enhancing the value of popular music, and that informal music learning is an effective pedagogical approach to developing popular music education (Davis & Blair 2011; Hallam & McQueen 2018; Springer 2016; McPhail 2013).

The term "Informal Learning" originated from the "Informal Education" advocated by UNESCO in the late 1940s, although similar concepts of "informal learning" had already been proposed

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by scholars in the early 1900s, and the advocacy of Informal Education has brought further attention to this issue in the education sector (Qiang, 2023). The use of informal learning in music classroom practice was a major innovation for Lucy Green in music education. Informal learning has been introduced to music classrooms in different countries as a new pedagogical tool to redefine the relationship between students and teachers and between popular and classical music (McPhail, 2013). Informal music learning emphasizes the interaction between teachers and students, it provides an opportunity to break down previously rationalized musical knowledge, allows students to create new discourses, emphasizes non-teacher-driven teaching and student-directed learning, and, more importantly, is student-centred in the teaching-learning process, where the student is proactive and deterministic, rather than the teacher dominating the process, which allows for a re-balancing of the teacher-student relationship (Richardson, 2020).

Lucy Green introduced the informal learning method of popular musicians into the middle school music classroom, allowing students to experience music (mainly popular music) deeply in musical practice, give full play to their learning initiative, and enhance their self-management skills (Lebler, 2010). Social media software such as YouTube provides a rich learning resource for informal music learning, and it is a great way to music education resources (Waldron, 2013). Informal popular music learning practices are, in Green's view, not only applicable to popular music, but also to classical and other music, and she argues that informal popular music learning practices are partly intended to prevent the introduction of popular music into school education as a way of pandering to the tastes of the students in order to achieve something (classical music) that the school deems to be more 'valuable'. This approach, in Lucy Green's view, implicitly diminishes the value of popular music itself, and therefore the divide between popular and classical music can be mitigated through ways of recognizing classroom autonomy and authenticity and understanding the role of authenticity in music education (Green, 2006).

With the introduction of Lucy Green's pedagogical practice of 'informal music learning', more and more countries have begun to focus on the practical aspects of popular music, and educational programs exploring popular music practices have emerged, with Australia and New Zealand being the most developed countries for popular music education (Till, 2017). The development of popular music education in Germany is largely due to the development of jazz in the 1970s, and Ahlers (2015) argues that combining formal and informal learning when popular music education a good practice. Singapore adopts the idea of popular music education connecting with the world outside the classroom, engaging learners in music as a means to form and inspire the individual, self-actualization, and self-transcendence (Dairianathan & Francis, 2015). Teachers in Sweden seek as much authenticity as possible in the classroom and are striving to gain an experience of music and playing music that is as close as possible to the music practiced outside of school (Georgii-Hemming & Westvall, 2010).

Therefore, based on the above, this study aims to explore the application characteristics of informal music learning in popular music through a systematic literature review and explore the following questions:

RQ1: Comparative of main characteristics of "Informal Learning" in popular music education?

RQ2: What is the impact of "Informal Learning" in popular music education?

RQ3: What are the attitudes of teachers and students of "Informal Learning" in popular music education?

RQ4: What are the suggestions of "Informal Learning" in popular music for teaching strategies?

Underpinning Theories of “Informal Learning” in Context with Popular Music

Green's “informal learning” model summarized the practices of popular musicians into five characteristics (or principles): (Mariguddi, 2021): (1) The importance of music selection: Learning music that the students like, chooses, and identify with. (2) Copying recordings by ear: Learning music by listening to and copying recordings. (3) Observe and imitate others: Learning with friends. (4) Spontaneous, unstructured approach: Personal learning, often at random and without instruction. (5) Integration of creative processes (listening, performing, improvising and composing), with one or more (though not all) of these principles present in all phases of the project (Green, 2002) .

According to these characteristics or principles, this study summarizes the above five characteristics from the aspects of autonomy, situationality, and authenticity, and believes that the underpinning theories of “informal learning” of popular music should include the following: situational learning theory, constructivist learning theory, and self-determination theory.

Self-Determination Theory

Self-determination theory provides a blueprint that helps understand the relationship between the basic of motivation, basic psychological needs and happiness, psychological prosperity and high-quality life of individual and social behaviour. When people's ordinary psychological needs are satisfied, it has a very important impact on happiness and learning. SDT divides people's motivation into autonomous motivation and controlled motivation. Autonomous motivation mainly refers to the behaviour that is completely voluntary, recognized and chosen by the individual (Ryan & Deci, 2017). Therefore, when learners autonomously influence their learning choices and decisions, psychological needs will be satisfied, and learners will believe that they are capable of completing the learning tasks in the learning environment (Virkkula, 2020). According to SDT, in the learning environment, autonomous choice and the interaction between individuals and the environment have an important impact on meeting learners' psychological needs (Deci & Ryan, 2014).

The main difference between intrinsic and extrinsic motivation in self-determination theory is the degree of autonomy, a higher degree of student autonomy indicates stronger intrinsic motivation (Jiang et al., 2024). Similarly, the important characteristics or principles of “informal learning” are to emphasize the music that students like, choose and approve, to support students to independently choose their own music without guidance, and to emphasize the principle of student autonomy. As Green found in previous research, popular musicians only want to continue practicing when they experience the joy of music, and this unconscious learning can stimulate internal autonomy to a certain extent (Green, 2002).

Situated Learning Theory

Situational learning theory emphasizes social and cultural interactivity and the importance of collaborative learning activities. SLT emphasizes that effective education should place students in real practice situations and impart knowledge in real environments, which requires students to engage in social interaction and collaboration in the "community of practice" (binti & Besar, 2018). Situational learning theory (Lave & Wenger, 1991) believes that the mastery of knowledge and skills is closely related to the learning situation, focusing on the importance of "practice" and "collaboration", as well as the dynamic relationship between the collective and the individual (Su & Zou, 2022).

Compared with traditional oral teaching methods, situational learning can help students implicitly acquire a large amount of implicit knowledge and naturally apply this knowledge to real situations (Chen, 2016). In addition, informal learning emphasizes the importance of situationality. Students interact and cooperate with individuals and groups in learning situations through listening, imitating and interacting. Smith & Freire (1997; 2002) pointed out in the concept of informal education that informal education is a form of "dialogue" rather than "course". It is not only a theoretical method, but also a teaching practice that can be actually applied in the classroom. This "dialogue" can only be achieved through individual and collective interaction and collaboration.

Constructivist Learning Theory

Constructivism advocates the creation of a learning environment and learning conditions that optimize self-directed and self-guided, exploratory and experiential education (Cremata, 2017). In music environment, learners are active promoters of learning and knowledge construction, in this facilitating learning environment, it is increasingly evident that students are developing in the direction of initiative and responsibility in the learning process (Webster, 2011). This is why an important contribution of constructivism is the focus on student-centred learning, because constructivists believe that the teaching context and students' learning beliefs and attitudes are important factors affecting students' learning (Bada & Olusegun, 2015).

In the constructivist learning theory, Piaget believes that knowledge is gradually constructed in the process of interaction between individuals and the environment. Knowledge is neither subjective nor objective, that is, knowledge is real, and learners must participate in the learning process independently (DeLay, 1996). Similarly, the goal of "informal learning" is considered to be "authentic reproduction" of music practice (Cain, 2013). In Green's view, the five principles of informal learning are true for popular musicians, and the principle of authenticity is the key principle that Green emphasizes on the introduction of informal learning into the classroom. Green introduced these learning characteristics of popular musicians into the school environment, allowing students to truly feel the process of musical activities, thereby constructing and forming their own knowledge model.

It is worth mentioning that the five characteristics of the constructivist learning environment listed by Tam (2000) include: teachers and students share knowledge, share right, the role of teachers and the composition of learning groups, which are consistent with the five characteristics or principles of "informal learning" practices in popular music summarized by Green. Their purpose and goal are to emphasize students' learning initiative, authenticity and context, which is the advantage of constructivist learning theory and the focus of "informal learning" implementation in popular music education.

Materials and Method

This study used a systematic literature review with reference to Systematic Review and Meta-Analyses (PRISMA, 2020) checklist to guide the conduct of this research. The sources of information as well as the qualifying criteria of the selected literature were first identified, and the Web of Science (WoS) and Scopus database were used as the source of information for this study.

The inclusion criteria for this study were (a) must meet the indexing requirements of Web of Science (WoS) and Scopus (b) have an impact index in Journal Citation Reports (JCRs) and (c) popular music related to informal learning. The next step was to determine the exclusion criteria,

and after the initial review, a second review was conducted to further clarify the selection and exclusion criteria for this study, which in turn guided and answered the research questions of this study.

Data Collection

The data collection for this study was conducted in July 2024, data collection consisted of a total of three steps (see Figure 1), and the published articles from 2006 to 2024, mainly from Clarivate Analytics' database Web of Science (WoS) and Scopus, were studied and analysed. To ensure the comprehensiveness of the study, this paper adopts a broad search strategy, firstly designing the keyword "popular music education", adding the line set to "informal learning", clicking on the search, and then searching for the keyword "popular music education". After clicking search, we searched according to the order of "relevance" and "highest citation rate", focusing on the titles, abstracts, and keywords that appeared in the title, abstract, and keywords of the WoS and Scopus from 2006 to 2024, and then searching for the keywords "Informal Learning" in WoS and Scopus from 2006. After screening by the authors at different times with different keywords, 131 articles were initially screened to meet the requirements.

To streamline the review process, the second step of data collection was to evaluate the titles and abstracts of the 131 articles from the initial search, and since the criteria for article requirements for this study required that the articles have an index of impact as well as be relevant to the field of music education, articles that were not cited and those that were not related to education were excluded, and the research workload was reduced to 104 articles for this task. The next step was to exclude articles that did not relate to keywords such as 'Popular music education', 'Informal Learning', as well as articles that did not have a clear stage of education, were written in a language other than English, and did not contain a full-text literature, in this task, the research workload was reduced to 24 articles, and by using the exclusion criteria identified in this paper, studying articles that met the adoption and exclusion criteria identified in this paper was able to ensure that this paper was analysed in a targeted manner. Finally, the research texts to be used in this study were identified through close reading and evaluation of all articles, which totalled 24.

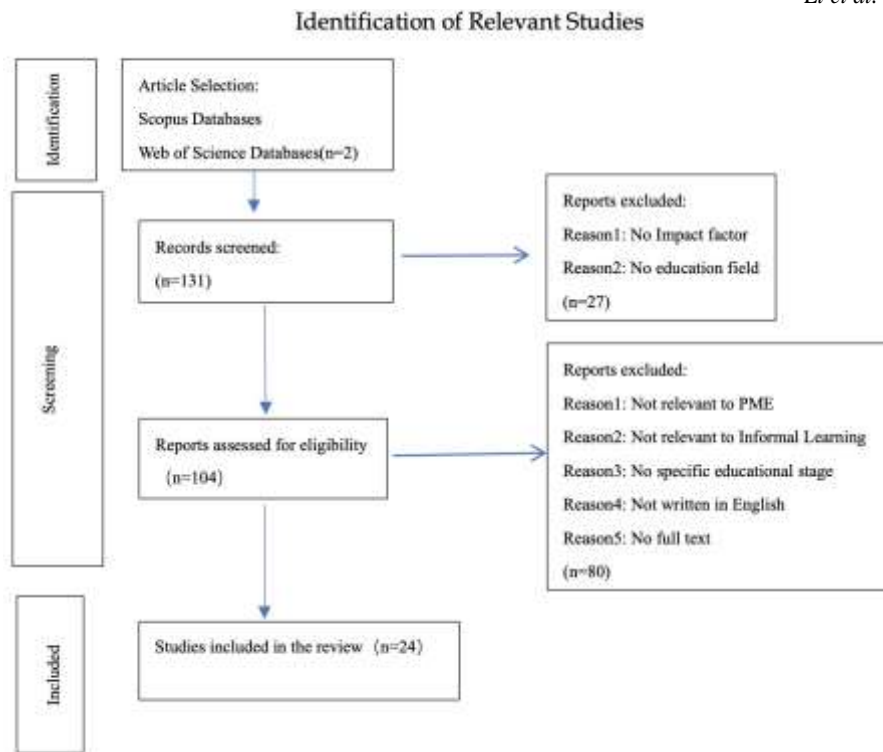


Figure 1: The Procedures of Data Collection

Results and Discussion

Main Characteristics of Informal Learning in Popular Music Education

By analysing the 24 published articles used in this paper, and in order to visualize the specific results of the research question, the researcher listed them in order of the number of citations, from highest to lowest, according to first author, time of publication, country of practice, research design, and stage of education in the order presented in Table 1.

First Author	Year	Country	Study design	Educational Stage
Lucy Green	2006	United Kingdom	Qualitative	Middle School
Heidi Westerlund	2006	Finland	Qualitative	University
Don Lebler	2007	Australia	Qualitative	University
Eva Georgii-Hemming	2010	Sweden	Qualitative	Compulsory
Heloisa Feichas	2010	Brazil	Qualitative	University
Joseph Michael Abramo	2011	United States	Qualitative	Secondary
Sidsel Karlsen	2010	Sweden	Qualitative	University
Sharon G. Davis	2011	United States	Qualitative	University

Susan Hallam	2018	United Kingdom	Mixed	Secondary
Susan Hallam	2017	United Kingdom	Mixed	Secondary
Wing-Wah Law	2015	China	Mixed	Secondary
Tim Robinson	2012	United Kingdom	Qualitative	College
Esa virkkula	2016	Finland	Qualitative	College
Julie Derges Kastner	2020	United States	Qualitative	High school
Martina Vasil	2019	United States	Qualitative	Secondary
Sylvana Augustyniak	2014	Australia	Qualitative	High school
Matthew Clauhs	2022	United States	Quantitative	K-12 school
Hoon Hong Ng	2020	Singapore	Qualitative	Secondary
Jennifer Blackwell	2022	United States	Qualitative	Elementary
Mark Pulman	2014	United Kingdom	Qualitative	University
Adam Patrick Bell	2019	Canada	Qualitative	University
Edmond Gubbins	2023	Irish	Qualitative	Primary
Rhythy Quin	2022	China	Qualitative	Secondary
Pearly Tsz Wai Poon	2023	Hong Kong, China	Qualitative	Secondary

Table 1. Main Characteristics of the Selected Articles

According to Table 1, the 24 articles selected for this study were categorized according to country, year, educational level, and research method, and were analysed from the following graphs:

Country Of Publication of the Selected Articles

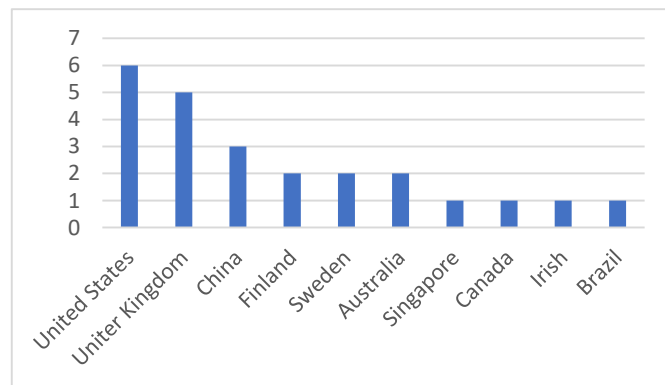


Table 2: Country of Publication of the Selected Articles

Through a thorough analysis and critical evaluation of the selected articles, it can be seen from Table 2 that these published articles on Informal Learning in the field of popular music education has been practiced in the following countries, mostly in the United States (n=6), followed by the

United Kingdom (n=5), then China (n=3), Finland (n=2), Australia (n=2), Sweden (n=2), and finally in Singapore (n=1), Canada (n=1), Irish (n=1), and Brazil (n=1).

Year Of Publication of the Selected Articles

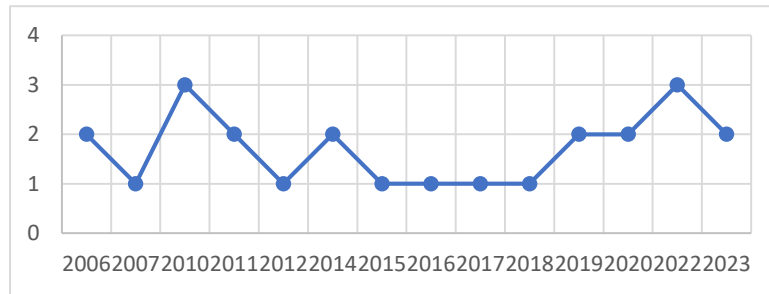


Table 3: Year of Publication of the Selected Articles

As we can see from the Table 3, the publication was most concentrated in 2010 (n=3) and 2022 (n=3), followed by 2006 (n=2), 2011 (n=2), 2014 (n=2), 2019 (n=2), 2020 (n=2), 2023 (n=2), which were six years, and finally in 2007 (n=1), 2012 (n=1), 2015 (n=1), 2016 (n=1), 2017 (n=1), and 2018 (n=1).

Method Of Publication of the Selected Article

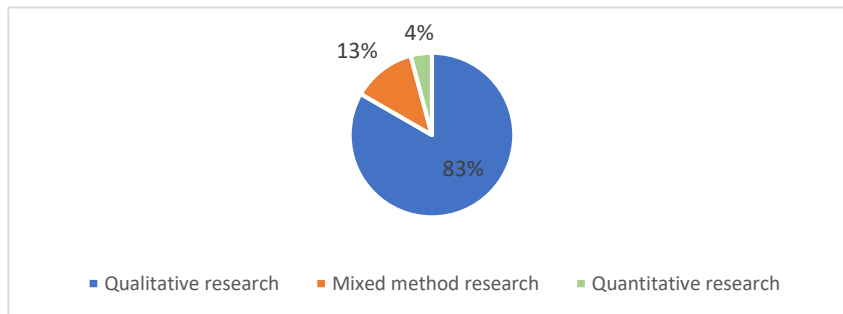


Table 4: Method of Publication of the Selected Article

As we can see from Table 4, the type of research design used in most of the articles was qualitative research (n=20), followed by mixed methods of research (n=3), and quantitative research only (n=1).

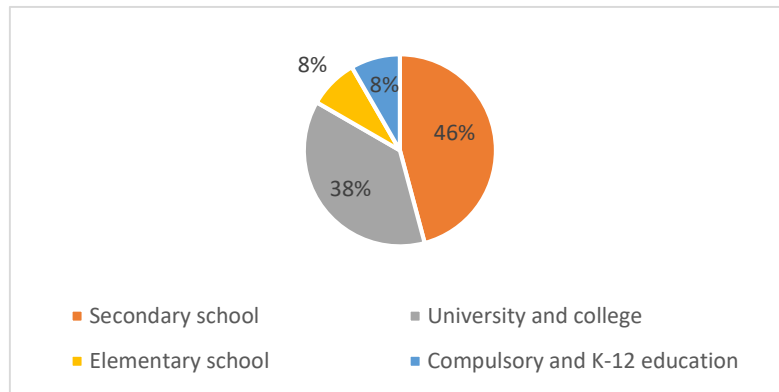


Table 5: Target Group of Publication of the Selected Articles

In terms of the target group (see Table 5), most of the articles examined the stage of education in secondary school (n=11), including middle school and high school. This was followed by universities and colleges (n=9), and the remaining articles focused on elementary school (n=2) and compulsory and K-12 education (n=2).

Based on the main characteristics of the selected articles from above table, further analysis proves that articles on this topic are concentrated in the United States, the United Kingdom, China, Finland, Sweden, Australia, and other countries that are rich in educational resources, economically developed, and have high levels of educational attainment; analysis of the years proves that the trend of this type of research started to increase from 2006 when informal learning was introduced into the classroom to 2011, in 2015, the trend of research started to remain stable, and then showed an upward trend from 2019; in terms of research method, these articles focused on qualitative and mixed research methods; most of the research stage were concentrated in secondary schools and universities, that is, educational stages in which students have more autonomy, and finally in elementary school.

Summary of Themes from the Selected Articles

In this systematic literature review, a total of 24 articles were identified. Table 6 lists the summary of the selected articles selected for this study, including the researchers (first authors), key findings and themes of these articles. The application of informal learning in popular music education in these articles is summarized in the following themes: i) impact; ii) attitude; iii) suggestion.

Researchers	Key findings	Themes
Lucy Green	This study examined how use some informal learning methods into classroom can have a positive impact on students' music meaning and experience.	Impact
Heidi Westerlund	Based on situated learning theory and research on expertise-based learning, this study provided an example of a revision of traditional teaching methods and a response to the challenges of Finnish music education.	Impact

Don Lebler	This study investigated the attitudes of students at a university regarding the use of masterless studios in a popular music course and found that this approach increased students' autonomy and self-efficacy.	Attitude
Eva Georgii-Hemming	This study explored the impact of embedding informal learning into Swedish school music education on music, teaching and democracy.	Impact and suggestion
Heloisa Feichas	This study analysed differences in students' attitudes towards studying music in Brazilian higher education institutions, discussed the gaps in the way music is conceived and taught within and outside universities, and suggests teaching strategies.	Attitude and suggestion
Joseph Michael Abramo	This study analysed how students' gender affects their participation in and performance of popular music and provided suggestions for related research.	Impact and suggestion
Sidsel Karlsen	This study explored the emerging BoomTown music education program in Sweden from the perspectives of informality and authenticity, suggesting that the combination of formal and informal learning features is beneficial in creating meaningful learning environments that meet students' needs for authenticity and are consistent with students' identities.	Suggestion
Sharon G. Davis	This study described students' experiences with general music teaching methods and their participation and attitudes toward informal learning processes from a pedagogical perspective, formulated a lesson plan for the incorporation of popular music in music classroom.	Attitude and Suggestion
Susan Hallam (2018)	The study explored students' attitudes towards the impact of adopting the informal learning of the Musical Futures program on student learning and achievement and indicated that students' attitudes towards the method are positive and confident.	Attitude
Susan Hallam (2017)	The study explored teachers' perceptions of the impact of using the Musical Futures approach on student learning and achievement, noting that most teachers felt that the approach had a positive impact on students.	Attitude
Wing-Wah Law	This study investigated Chinese students' preference for popular music and the extent and manner in which they learn popular music, revealed the mismatch between popular and classical music in formal and informal schooling, and suggested that multi-level music education needs to be reshaped by the intertwining of different elements, and different participants.	Suggestion

Tim Robinson	This study explored the relationship between popular musicians' learning styles and their pedagogical approaches to teaching, examined the extent to which they themselves incorporate their informal learning practices into their work as teachers and their attitudes as a way of tabulating the importance of the learning experience and demonstrated that the history of learning is central to the development of pedagogical strategies.	Attitude
Esa Virkkula	This study explored informal learning in the field of jazz popular music in Finland through the use of workshops with professional musicians, pointed to the importance of creating a musical environment centred on making music rather than teaching it.	Suggestion
Julie Derges Kastner	This study used a first-grade teacher in the United States as a case study to describe the teacher's changing attitude towards teaching methods as her teacher identity continues to develop during the formal and informal learning process and explored the choice of teaching strategies in the informal learning process from a teacher's perspective.	Attitude
Martina Vasil	This study examined teachers' perspectives and curricular changes regarding the incorporation of popular music and informal learning practices in the music classroom in a way that bridges the gap between school music and youth music.	Attitude
Sylvana Augustyniak	By examining how students use formal and informal strategies, styles, and contexts to accomplish improvisation tasks, this study exposed that the strategies students learn in a shared learning environment have a positive impact on students' improvisation and arranging in the classroom, and that the teacher, as a facilitator, has a responsibility to assist students in the learning process.	Impact and suggestion
Matthew Clauhs	The study examined the attitudes, values, and beliefs of New York music classrooms regarding the inclusion of popular music in classroom instruction. Most teachers agreed, suggesting that music teachers and scholars in the United States may no longer be debating whether popular music is appropriate for schools, but rather are committed to best practices for engaging all students in a broader school music model.	Attitude
Hoon Hong Ng	This study reviewed the discussion and application of formal and informal teaching methods in Singapore, their impact on students, addresses teachers' concerns about informal learning methods, and provided suggestions for improving learners' learning experience.	Attitude and Suggestion
Jennifer Blackwell	This study investigated the perceptions and attitudes of teachers who provided out-of-school popular music experiences to primary school students, demonstrated that	Attitude

	the combination of learning experiences and teaching practices for the skills required in informal learning environments provided rich opportunities for teacher identity development.	
Mark Pulman	This study explored the perspectives of teachers and students on the inclusion of pop/rock bands in university music courses, categorized them by topic, and extracted two illustrative teaching models to serve as teaching guides and suggestions for teaching practice.	Attitude and suggestion
Adam Patrick Bell	This study described the experiences and attitudes of two pre-service teachers in learning popular music pedagogy, reporting that the learning experience helped prepare them for their future choice of teaching popular music.	Attitude
Edmond Gubbins	This study described the use of Music Futures, an approach to music education based on principles of informal learning, in six primary schools in Ireland, examined changes in music teaching and learning practices from the perspectives of teachers and students, demonstrated that the use of the approach has had an impact on ownership of learning, music assessment practices, and the development of skills outside of music. It has promoted teachers' teaching choices and students' learning practices.	Impact and suggestion
Rhythy Quin	This study observed the music curriculum of an international middle school in China, demonstrated the difficulties and challenges faced by teachers in teaching Chinese popular music to students from different cultural backgrounds in an international school environment, and suggested that teachers should balance the teaching ratio of Chinese pop music and Western classical music.	Suggestion
Pearly Tsz Wai Poon	This study explored the impact of popular music education on classroom practice from different aspects based on the concept of informal learning, demonstrated that these methods have a positive impact on students' music literacy, peer learning and peer teaching, and proposes a teaching model that helped create a more inclusive and student-centred teaching.	Impact and suggestion

Table 6: Summary of Themes from the Selected Articles

Theme 1: The Impact of Informal Learning in Popular Music Education

As can be seen from Table 6 the impact of informal learning on students in popular music classes reflects the results of teaching practice. It can help students create knowledge-building communities (Westerlund, 2006), improve their understanding of the meaning of music and music experience (Green, 2006), and improve their music performance (Abramo, 2011), peer learning, peer teaching and interaction abilities (Poon & Chen, 2023), meet students' learning needs, and form a student-centred learning environment (Gubbins, 2023).

Theme 2: The Attitudes of Teachers and Students of Informal Learning in Popular Music Education

Green (2002) suggests that informal learning practices can be developed in formal environments, but some researchers have suggested that attempts to integrate with these practices in higher education also present a number of challenges, such as the fact that it gives students a lot of autonomy and therefore demands a paradigm shift in the role of the teacher (Feichas, 2010) . Therefore, there are differences in the attitudes of teachers and students towards informal learning in popular music education.

Attitude	Research content
Positive	The teacher viewed informal learning as viable music in the classroom with the goal of transforming students' perceptions of popular music, and the teacher believed that informal learning was the primary vehicle for the future construction of musical meaning in K-12 music education (Davis& Blair, 2011).
Negative	In Sweden, music teachers felt that personal ideas and social development prevailed over musical communication and experience, and that Swedish music education treats "Informal Learning" as part of formal education, as a complement to and a support for formal learning (Georgii-Hemming& Westvall, 2010) .
Positive	In a special study of teachers in the UK on the Music Futures program, which is based on informal learning, the majority of teachers felt that the approach led to higher levels of student performance, and that through students' enjoyment and active participation in the music program, not only did they improve their musical and performance skills, but also improved their teamwork, concentration, confidence and musical comprehension (Hallam & McQueen, 2017) .
Neutral	There are some teachers who prefer to build a foundation for student learning through a mixture of formal and informal teaching methods before using informal learning methods for instruction, using formal learning teaching methods in the first few weeks of instruction to provide students with a foundation in music, and allowing for group discussion and exploration in informal learning sessions in subsequent weeks of instruction, in which students are given partial ownership of their learning (Ng, 2020) .
Neutral	In the formation of university bands, some instructors also use a mixed teaching method, because at the beginning of the course the students are not familiar with each other at the beginning of the course, in order to achieve a balanced state of affairs in the first year to use the band chosen by the instructor, and in the following years after the students are familiar with each other to develop their own social groups, the students choose their own bands (Pulman, 2014) .

Neutral	Many teachers' reasons for changing the curriculum come primarily from their own desires for that curriculum, and teachers make changes based on instructional practices and thinking about the abilities and needs of their students, choosing content that is developmentally appropriate for their students (Vasil,2019).
Neutral	An American music teacher choose to teach her students in a way that she approves of, using formal instruction for her younger students and informal music learning for her older students (Kastner, 2020) .
Neutral	Whereas college teachers use a traditional, classical model of teaching in their own instrumental instruction, somewhat ignoring all of their own informal learning practices and not teaching the way they learned, all in their own way, other musicians will choose his past informal learning style when teaching, and they not only value their past history of musical learning, but also make it as the centrepiece of their teaching (Robinson, 2012) .
Positive	Niel is categorized as an “informal learning” teacher because most of his music learning comes from self-teaching and peer-teaching. Therefore, to give his students a good experience of popular music, he not only teaches his students an introduction to the instruments in a rock band, but he also invites musicians from the community to provide some perspective on playing the instruments for his students (Bell et al., 2019) .

Table 7. Teachers' Attitude of Informal Learning in Popular Music Education

The teacher's perspective is important because teachers are an important source of students' skills (Mohd et al., 2019). As can be seen from Table 7, many teachers are not sure about choosing informal learning as their teaching method, but most of them choose to choose appropriate teaching strategies according to their own actual situation, such as learning history, students' backgrounds and other factors, the reason for this is that the process of informal learning emphasizes more on randomness, freedom, and unplannedness, which is more demanding and challenging for the teachers.

Research Content	Attitude
Many through practice students will begin to realize that popular music is effective in the curriculum and not just as a tool for learning other music, and they will begin to grow to value the informal musical process as well (Davis, 2011) .	Effectively
Informal music learning practices can be helpful for students with no music education background, as it encourages students to integrate quickly into university music study and enables them to compensate for some of the differences in their educational backgrounds. Most students find learning from each other meaningful, recognizing that they can benefit from living together	Meaningfully

because everyone has strengths and weaknesses, and therefore they find it valuable and desirable to integrate formal and informal learning (Feichas,2010) .	
Musical Futures program increased students' interest in music to some extent, and that the main reason students enjoyed music lessons was that they gained autonomy, were able to study with their friends, and were able to make their own music choices (Hallam, 2018) .	Effectively
Students at Shanghai Middle School in China reported that their friends and classmates influenced their study of popular music during informal learning, and that they preferred Mandarin and English popular music, as well as Japanese and Korean popular music, and also preferred a more open music curriculum (Law & Ho, 2015) .	Helpfully
Many students who reported participating in the school ukulele lesson program expressed their enjoyment of the process of peer performance, parental support, and teacher assistance, and that they found it enjoyable to perform and learn in this environment, and that peers are helpful to students, and that peers can influence and even reinforce young people's preferences and attitudes toward music as these young people learn from each other and emulate each other in different fields (Blackwell & Momohara-Ho, 2022) .	Helpfully
Some students expressed a need for further guidance from teachers in the Tools program, while some looked forward to discovering their autonomy and responsibility in an informal learning environment (Bell et al., 2019) .	Welcoming

Table 8: Students' Attitude of Informal Learning in Popular Music Education

As seen in Table 8, students' attitudes of Informal Learning in popular music education are positive, and they think that learning in informal learning is helpful and meaningful for music learning.

Theme 3: Suggestions of Informal Learning in Music Education for Teachers' Teaching Strategies

Informal learning empowers students to take ownership of the learning process and also requires teachers to change their teaching paradigm, in order to adapt to different instructional needs, teachers should choose teaching strategies that match the abilities ,interests, abilities and aspirations of their students (Othman et al, 2024), and this change of recognizing and adapting new teaching strategies to different developmental needs can be a challenge for teachers (Robinson, 2012). In response to teacher strategies, many researchers have also made the following recommendations for teacher strategy selection :

(1) To provide a unique opportunity to develop the pedagogical relationship: A proper view of popular music: more and more teachers feel a strong connection between popular music and young students, so it must be included in school life, because the use of popular music helps to provide a unique opportunity to develop the pedagogical relationship between students and teachers, and it plays an important role in creating a connection between students' lives and trust between teachers and students (Davis & Blair, 2011) . When teachers have the opportunity to participate in substantive teaching and learning experiences, they may change their views on popular music education (Blackwell & Momohara-Ho, 2022).

(2) To satisfy the needs of students to make their own choices: Respect students' interests: the informal music learning process gives students enough autonomy in the classroom, they can choose their favourite music and favourite styles, which is the main reason why most students like the music course, because their preferences are respected and their needs are met, as teachers should encourage students to express their own views and preferences, and respect their choices for the teaching of the It will be helpful (Hallam & McQueen, 2018) . As a preservice teacher mentioned in the study by Blackwell & Momohara-Ho (2022), understanding students can help them feel more like a teacher and thus be able to understand students effectively.

(3) To keep a critical thinking to choose teaching methods: Reflecting on teaching deficiencies: Whether it is formal and informal learning, or classical and popular music, they will clash and have advantages and disadvantages, and teachers should help and guide students from these advantages and disadvantages, make corrections to the shortcomings of different learning styles, and make up for the deficiencies of another learning style with one learning style (Feichas, 2010) .

In addition to Feichas (2010), more and more people such as Fleet (2017), and Dean (2019) have called for a balance between formal and informal learning, this will help ensure that musical experiences in music education are not limited by the inability to participate in formal or informal learning (Hess, 2020).

(4) To choose an appropriate teaching path to develop students' music learning: Teaching strategy selection: When professional musicians choose to take on the role of a peer musician rather than a teacher in an informal music learning workshop, this behaviour has a significant impact on collaboration with students, as the musician does not control student learning, students begin to ask questions and engage in self-reflection as a result, becoming motivated, and the musician becomes a facilitator of learning (Augustyniak, 2014; Virkkula, 2020).

Informal music learning can be "a leading path" in music education. teachers should correctly view informal music learning as a supplement and support to formal learning in schools, actively understand students and organize them, help them construct meaning, and select learning processes that are appropriate to students' development and needs, processes for teaching and learning (Georgii-Hemming & Westvall, 2010) .

Based on the findings, the authors proposed a conceptual framework of the themes related to Informal Learning in popular music education:

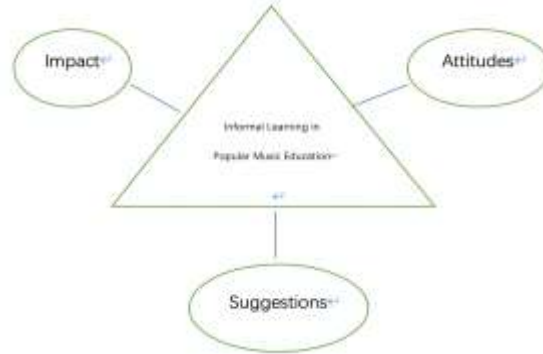


Figure 2: Conceptual Framework of Informal Learning in Popular Music Education

Conclusions

Overall, this study selected 24 representative articles in the field, and the results of this study inform the practice and application of informal learning. In analysing the characteristics of these 24 articles, it was found that informal learning is more applicable to countries with rich educational resources, developed economies, and especially better-developed music education because the introduction of popular music education into the classroom requires educational policies and economic support. Secondly, informal learning is more suitable for students in higher grades, who have a certain foundation in music learning and have the autonomy to learn, interact better with teachers and utilize their creativity.

Through a systematic literature review, this study found that informal learning is more popular among students because it gives them full autonomy in the classroom and fulfils their wants and needs in the music classroom. For teachers, some of them believe that informal learning improves students' ability to present themselves and they are very willing to bring informal learning into their classroom teaching, while the other part of the teachers use a blended instructional strategy in which formal learning is used for the lower grades and informal learning is used for the higher grades, and further analyses show that students' learning backgrounds and teachers' learning histories are the two main factors that influence the practice and effectiveness of informal learning in teaching and learning popular music.

The conclusions of this study must be considered in terms of its limitations, through which it was found that the field is less researched as of now, although it has a good future and needs further research. In addition, informal learning offers a new possibility for the pedagogical relationship between students and teachers, through which students can participate in and experience a learning process that is led by them, develop their creativity and cooperation, and improve their ability to cope with different challenges and solve problems.

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