Article

Research on the Talent Cultivation of Music Education in Colleges and Universities under the Perspective of New Liberal Arts

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Abstract

This study examines the incorporation of New Liberal Arts (NLA) concepts into music education programmes within higher education institutions, with a particular focus on the interdisciplinary approach aimed at fostering talent development. Employing surveys, interviews, and case analyses, the study highlights both the benefits and challenges associated with implementing NLA in music education. The principal advantages of this approach include enhanced innovation, analytical thinking, and students' preparedness for professional careers. Nevertheless, significant challenges, such as resistance to change and insufficient resources, hinder effective implementation. To address these issues, the study proposes solutions including improved teacher training and the promotion of interdisciplinary teaching strategies, thereby aligning music education more closely with contemporary professional demands. The findings indicate that although NLA principles offer clear benefits in terms of student engagement, skill development, and employability, successful integration requires strong institutional commitment, adequate resource allocation, and well-prepared educators. A fundamental shift from traditional music education models to an NLA-oriented framework is essential. Furthermore, the combination of qualitative and quantitative data provides a comprehensive understanding of the current state of talent development in music education under the NLA paradigm, revealing both opportunities and areas necessitating further improvement.

Keywords

Talent Cultivation, Music Education, New Liberal Arts, Colleges.

Introduction

The New Liberal Arts (NLA) has emerged in recent years as an innovative initiative within higher education, intended to bridge the gap between traditional liberal arts disciplines and contemporary interdisciplinary perspectives. This reform seeks to enhance educational experiences by encouraging integration across subject areas, fostering problem-solving and critical thinking, and promoting adaptability. The NLA approach is grounded in the notion that students must be equipped to confront not only employment-related demands but also the broader challenges of a rapidly transforming global landscape. This perspective is particularly relevant to the field of music education, where the integration of classical musical training with modern interdisciplinary methods holds the potential to establish a novel and dynamic educational model.

New Liberal Arts and Music Education

Music education, which was previously focused primarily on the development of technical proficiency and artistic performance skills, is progressively evolving under the framework of the NLA. This transformation entails broadening the scope of music education beyond its conventional boundaries of theoretical and practical musical knowledge to incorporate elements from other academic disciplines, including technology, cultural studies, and the social sciences. By integrating these diverse components, music education programmes aim to cultivate not only musically gifted individuals but also culturally aware and professionally competent graduates. Furthermore, the NLA perspective emphasises the central role of information technology in contemporary music instruction. Given that both the historical evolution of music and the modern music industry are deeply intertwined with technology and multimedia, students significantly benefit from engaging with these tools (Lyu et al., 2024). This includes acquiring competencies in digital music creation, music production, and the use of analytical software. The incorporation of technology into music education ensures that students remain aligned with the ongoing technological advancements shaping the field.

Significance of the Paper

This paper holds considerable significance within the academic sphere, particularly for faculty members, curriculum developers, and policymakers in higher education institutions. By examining the integration of NLA principles into music education, it offers valuable contributions to the discourse on interdisciplinary approaches aimed at enhancing both the quality and substance of music education at the tertiary level. Educators will benefit from practical recommendations and concrete examples that support the implementation of active pedagogical methods fostering critical thinking, creativity, and adaptability among students. These insights are equally advantageous for curriculum developers, enabling them to design curricula that better equip students to navigate the diverse challenges of contemporary careers in music and related fields. Additionally, educational stakeholders and policymakers may utilise the findings to inform the creation of policies that promote the holistic development of students and encourage greater integration across academic disciplines. Ultimately, this paper advances the ongoing dialogue concerning the future of higher education and offers a nuanced perspective on talent development within the Arts, aligned with the demands of the 21st-century economy.

Problem Statement

The ongoing paradigm shift in education necessitates a reconsideration of traditional music education programmes offered by colleges and universities. As evidenced in the New Liberal Arts (NLA) movement, many institutions providing music courses have yet to adopt innovative teaching approaches that would adequately prepare students for the evolving dynamics of today's music industry (Ho, 2023). This persistent gap between conventional music education and the contemporary demands of the labour market underscores a critical concern—namely, the imperative for music education programmes to embrace NLA principles aimed at cultivating polytechnic talent. However, the effective integration of these principles faces significant obstacles, including resistance to change, insufficient resources, and weak interdisciplinary collaboration, making the process of reform challenging to implement.

Research Objectives

- To assess whether the existing models of music education programs match the principles of New Liberal Arts in colleges and universities.

- To determine the issues encountered by educators and institutions where New Liberal Arts is being incorporated in music learning.
- To use the pre and post-survey results to assess the effectiveness of interdisciplinary approaches in student learners when it comes to music education.
- To identify how New Liberal Arts perspectives could be best integrated into curricula of music education.

Literature Review

The Concept of New Liberal Arts in Music Education

Interdisciplinary Learning

The NLA philosophy of music education advocates for a transdisciplinary approach, whereby the study of music is interwoven with elements of technology, sociology, psychology, cultural studies, and other fields. This integration enriches the educational experience by offering students diverse opportunities to apply musical knowledge in real-world social contexts (Jiang, 2023b). Gaining insight into the psychological impact of music, alongside an understanding of the social and cultural significance of various genres and musical styles, deepens students' mastery of the discipline. Such an educational framework enables music students to engage with their art not only as performers but also as critical thinkers who can interpret and respond to the complexities of contemporary society.

Critical Thinking and Creativity

One of the key strategies within the NLA approach to music education is the emphasis on reasoning. Rather than concentrating solely on students' abilities to perform, compose, or create music, NLA encourages them to engage with musical works as critically and creatively as possible. This form of critical engagement enables students to develop a deeper cognitive understanding of both the music itself and its broader context, ultimately shaping them into more reflective and thoughtful musicians (Guan, 2023). Central to NLA is the cultivation of creativity and innovation as core competencies, encouraging students to approach problem-solving in novel ways that extend beyond conventional methods, whether in writing, painting, composing, or other creative pursuits. Such an approach is particularly valuable in responding to the increasing unpredictability of cultural trends, as only individuals with creative and adaptable minds are capable of addressing these shifts effectively Figure 1.

Figure 1: *Critical Thinking and Creativity.*
Source: Thornhill-Miller et al. (2023)

Cultural Awareness and Diversity

Cultural sensitivity represents another fundamental tenet underpinning the NLA approach in music education. NLA programmes aim to demonstrate to students that music is a global phenomenon, exposing them to a wide range of musical traditions and practices. This cultural awareness not only broadens students' auditory

repertoire but also deepens their understanding of cultural diversity and the interconnectedness of various cultural expressions (Jiang, 2023b). The ability to appreciate and engage with different musical styles from around the world is a valuable skill that contributes to an individual's cultural competence and can significantly enhance their opportunities for personal and professional advancement.

Technological Integration

One of the essential components of the NLA paradigm is the integration of technology into music education. In the contemporary world, it is crucial for students aspiring to enter the music industry to be proficient in current technological tools and platforms (He, 2023). NLA programmes incorporate modern software and digital tools into both teaching and learning processes, with particular emphasis on music production, composition, and other technology-driven activities. This focus on technological literacy equips students with the necessary skills to navigate the contemporary music industry, which has increasingly embraced social media and various internet-based platforms as integral parts of its operation (Chunjiao, 2023).

Holistic Development

In alignment with Tomlinson's proposition, the approach to music education advocated by the NLA seeks to cultivate not only proficient musicians but also responsible, proactive, and independent thinkers, as well as discerning consumers and contributors to the cultural landscape (Jiang, 2023b). Through the integration of interdisciplinary training, critical analysis, problem-solving, creativity, cultural sensitivity, and technological proficiency, NLA programmes prepare students to confront both the practical challenges and opportunities they are likely to encounter in their professional careers (Huang & Zhang, 2023). This emphasis on holistic development represents a cornerstone of the NLA philosophy in music education, making it a highly effective framework for nurturing the next generation of artists Figure 2, 3, 4 and Table 1.
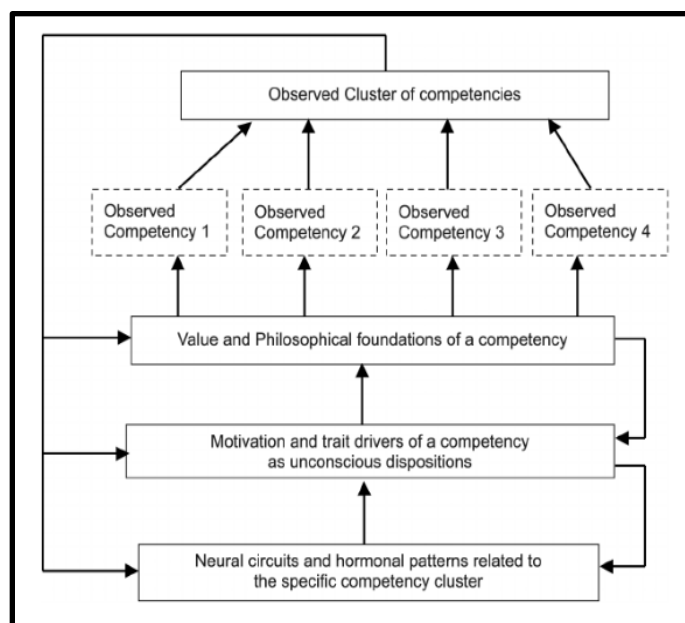

Figure 2: *Observed Culture of Competencies.*
Source: Boyatzis (2008)

Table 1: *Key Components of New Liberal Arts in Music Education.*

| Component	Description
Interdisciplinary Learning	Integration of multiple disciplines to enrich the understanding of music.
Critical Thinking	Encouraging students to question, analyse, and interpret musical works.
Creativity and Innovation	Fostering original thinking and creative expression in music.
Cultural Awareness	Promoting an understanding of diverse musical traditions and practices.
Technological Integration	Incorporating digital tools and technologies in music education.
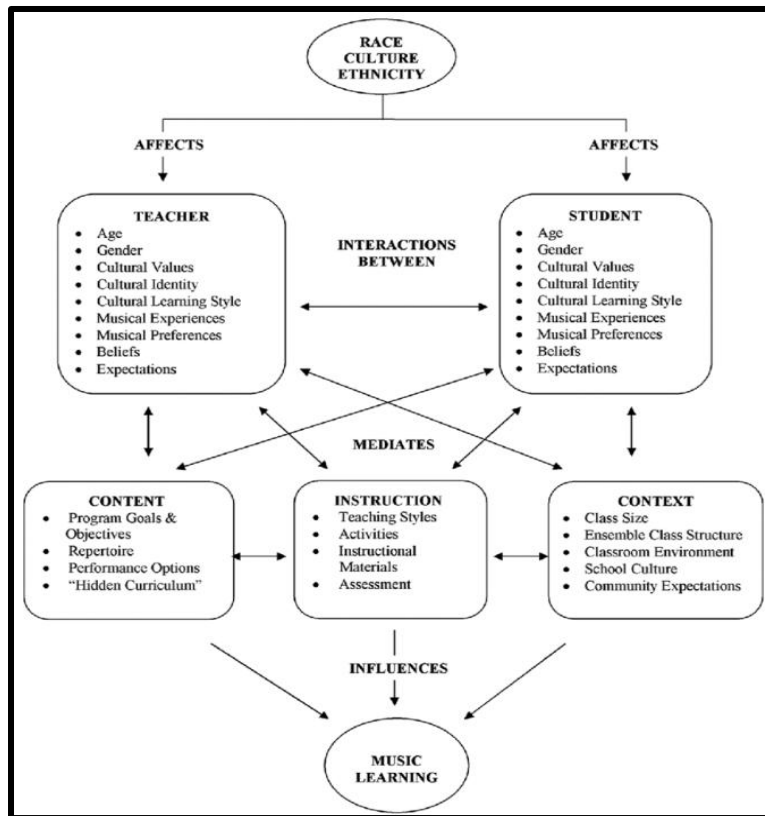
Figure 3: *Dimensions of Musical Learning.*
Source: McKoy (2013)

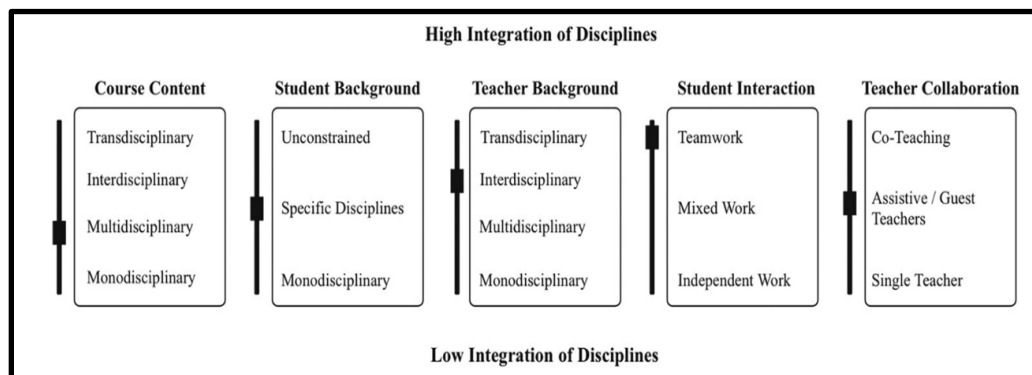### Curriculum Design in Music Education under NLA

Figure 4: *Five Aspects of Course Design in Multi, Inter and Transdisciplinary Education.*
Source: Feng et al. (2023)

Interdisciplinary Courses

Among the most significant innovations within NLA-based teaching and learning is the integration of multidisciplinary courses into the curriculum. These courses merge music with other fields, such as digital media, cultural studies, and various social science disciplines. Through exposure to a wide and diverse range of subjects, students develop a broader understanding of the role of music in society and acquire critical thinking skills necessary for engaging with the subject in a reflective and analytical manner (Zhang et al., 2024). Even a seemingly straightforward course may combine elements of music theory with digital sound production, thereby equipping students with the ability to both analyse and create music in a manner that reflects contemporary artistic and technological developments.

Technological Integration

Technology constitutes another critical area that has received considerable emphasis within the NLA curriculum for music students. As the music industry increasingly integrates digital tools and interfaces, the NLA curriculum ensures that students acquire appropriate familiarity and competence with these technologies. This includes instruction in music production software, digital composition, and sound engineering, thereby equipping students with the technical skills necessary to engage with contemporary industry practices (Jiang, 2023a). Moreover, the incorporation of technology reflects broader shifts in how music content is both delivered and consumed, with online resources, virtual instruments, and interactive platforms becoming essential components of the modern learning environment.

Project-Based Learning

Project-Based Learning (PBL) represents a significant innovation within the New Liberal Arts (NLA) framework, serving as a central approach to learning that emphasises project-driven tasks. In this model, students engage in collaborative assignments that require the application of interdisciplinary knowledge to address complex problems. Many of these projects are grounded in real-life scenarios, offering students opportunities to develop practical solutions and generate original ideas (van der Wende, 2024). For instance, a project may involve composing and recording a soundtrack for a specific short film, thereby enabling students to integrate music theory, digital production tools, and elements of cinematographic art in a cohesive and creative manner.

Flexible and Personalized Learning Paths

The NLA curriculum also offers an effective and individualised approach to learning, thereby enhancing student enrolment by allowing learners to pursue areas aligned with their career aspirations. The curriculum ensures equity through a diverse range of elective courses and independent study options, enabling students to focus on aspects of music that align with their personal interests. This flexibility further allows students to acquire complementary skills that support their long-term goals, whether as performers, composers, producers, or educators (Du, 2023). The structure of the curriculum, as implemented in music education under the NLA framework, represents an innovative conceptualisation of integrated, technology-supported, and student-centred learning Table 2.

Table 2: *Comparison of Traditional vs. NLA-Based Music Education Curriculum.*

Aspect	Traditional Curriculum	NLA-Based Curriculum
Focus	Technical Skills and Musical Performance	Interdisciplinary Knowledge and Creativity
Course Content	Theory, History, and Performance	Integration of Technology, Culture, and Innovation
Learning Approach	Teacher-Centred, Lecture-Based	Student-Centred, Project-Based
Assessment Methods	Exams, Recitals	Projects, Portfolios, Collaborative Work

Teaching Methods and Pedagogical Approaches

Active Learning Strategies

NLA-based music education emphasises active learning, where students engage in activities rather than passively receiving knowledge. This contrasts with traditional teacher-centred methods. The Flipped Classroom Model, widely adopted in NLA programs, provides students with web-based materials, such as videos and readings, for independent study before class (Cheatham, 2023). This approach allows class time to be dedicated to discussions, activities, and practical exercises, enhancing comprehension and retention. Another key active learning method in NLA-based music education is Collaborative Learning (Zhang, 2023).

Experiential and Problem-Based Learning

Teaching and learning activities under NLA include Experiential Learning, which allows students to apply knowledge in practice. This involves internships, workshops, and field trips that offer hands-on experience in music production. Students may work in music production firms, collaborate with artists in workshops, or visit

cultural institutions focused on music's societal role (Zhai, 2023). Such experiences connect theory to practice, preparing students for careers in the music industry and enhancing problem-solving skills essential for meeting current industry demands. Additionally, PBL tasks students with real-world challenges, such as designing marketing campaigns for new musical products or promoting the preservation of traditional music forms (Maidaniyk et al., 2023).

Technology Integration in Pedagogy

Today, with the proper use of technology and knowledge, many instructional methods can be made more effective and engaging. Digital Composition and Production are increasingly integrated into music syllabi, enabling students to use software for composing, editing, and producing music. This enhances their competencies and prepares them for a technologically advanced job market (Tang & Wang, 2024). Online platforms and applications also facilitate remote collaboration, instant feedback, and convenient learning. Moreover, technology supports Gamification of Learning, which incorporates elements such as scores, contests, and incentives to make learning more interactive and motivating (Jiexia & Yodwised, 2024).

Mentorship and Personalized Learning

Tutoring is another technique in NLA-based music education, where students are guided by experienced mentors in their academic and career paths. Mentors provide specific advice, share experiences, and help students overcome learning challenges (Watcharinrat et al., 2024). This one-on-one interaction enhances learning and prepares students for future careers. NLA also emphasises Personal Learning Plans, allowing students to choose what to study based on their career goals, acknowledging individual differences in abilities and ambitions (Jiang, 2024). These approaches create an engaging classroom environment that prepares students for the music industry while fostering lifelong learning and resilience Table 3.

Table 3: *Teaching Methods in NLA-Based Music Education.*

Teaching Method	Description	Benefits
Flipped Classroom	Online resources for pre-class learning, with in-class time for application	Enhances understanding and engagement
Collaborative Learning	Group projects that integrate knowledge from various disciplines	Fosters teamwork and interdisciplinary skills
Experiential Learning	Internships, workshops, field trips	Provides practical experience and industry insights
Problem-Based Learning	Students solve real-world problems as part of their coursework	Develops critical thinking and problem-solving skills

Talent Cultivation Strategies

Personalized Learning Plans

One of the key pillars of NLA-based music education is the development of individual learning plans tailored to students' traditions, preferences, abilities, and career goals. Unlike standardised models, this approach allows learners to pursue their specific interests (Ho, 2023). For instance, a student interested in music technology may focus on digital composition, sound engineering, and production, while one aiming to become a music teacher may choose pedagogy, psychology, and curriculum courses. This personalised approach makes learning more engaging and improves both academic and career outcomes.

Mentorship Programs

Supervision is a crucial element of talent development in NLA-based music education. It pairs students with faculty members, industry professionals, or successful alumni who guide them academically and professionally (Ng & Ng, 2023). Through this mentorship, students gain valuable learning support, industry contacts, and artistic and career development advice. Mentors offer unique insights that students might overlook during their training. Additionally, such programmes foster social connections within the educational framework, providing students with multiple channels for interaction and support.

Interdisciplinary Collaboration

The NLA framework emphasises cross-disciplinary collaboration to foster creativity. Music students are encouraged to work with peers from other fields such as art, theatre, literature, and science. This interaction broadens their perspectives and helps them explore how music can integrate with other disciplines, leading to more diverse and culturally sensitive creations (Lyu et al., 2024).

Experiential Learning Opportunities

The final strategy under the NLA perspective of talent cultivation is experiential learning, which is vocation-oriented and focuses on applying classroom knowledge to real-world contexts. Opportunities such as internships, workshops, field trips, and live performances enable students to gain hands-on experience in different sectors of the music industry, including recording and production companies, and educational institutions (Jiang, 2023a). Additionally, workshops and masterclasses led by industry professionals provide further career development and networking opportunities.

Career Development and Industry Engagement

Talent development in NLA-based programs focuses on preparing students for the music industry's job market. Career development activities such as workshops, seminars, and guest lectures equip students with skills to navigate industry competition, covering topics like portfolio building, marketing, entrepreneurship, and market trends. Moreover, strong industry engagement is fostered through partnerships with music organisations, record labels, and cultural bodies, leading to internships, placements, and collaborative projects. These initiatives not only strengthen ties between academia and industry but also broaden graduates' career opportunities within the music field.

Emphasis on Cultural and Social Awareness

The NLA approach to music education emphasises cultural and social values, helping students understand how music connects to culture and preserves societal values. Courses like ethnomusicology, music history, and cultural studies form a core part of this strategy, offering insights into the global role of music. Additionally, community engagement projects allow students to address societal or cultural issues through music, fostering deeper cultural understanding (Huang & Zhang, 2023). Thus, NLA-based programs promote cultural and social sensitivity, preparing musically skilled graduates to be responsible global citizens Table 4.

Table 4: *Talent Cultivation Strategies in NLA-Based Music Education.*

Strategy	Description	Outcome
Personalized Learning Plans	Individualized learning paths tailored to students' interests and goals	Enhanced student engagement and achievement
Mentorship Programs	Guidance from industry professionals	Improved career readiness and industry connections
Career Development Workshops	Training in portfolio development, entrepreneurship, and industry trends	Better career preparedness and industry awareness

Student Outcomes and Success Metrics

Academic Performance

The effectiveness of NLA-based music education is evident in improved student performance. Through interdisciplinary integration, NLA enhances students' appreciation of music within broader contexts of technology, culture, and society. This comprehensive educational approach boosts academic productivity and fosters deeper reasoning about music, leading to better results and higher retention rates (Zhang et al., 2024). The integrated curriculum allows students to connect different fields, promoting holistic learning. Moreover, project-based and practice-oriented learning within NLA strengthens academic outcomes by enabling students to apply theory in practical contexts (van der Wende, 2024). Such active learning methods enhance understanding and retention, enriching the learning experience Figure 5.
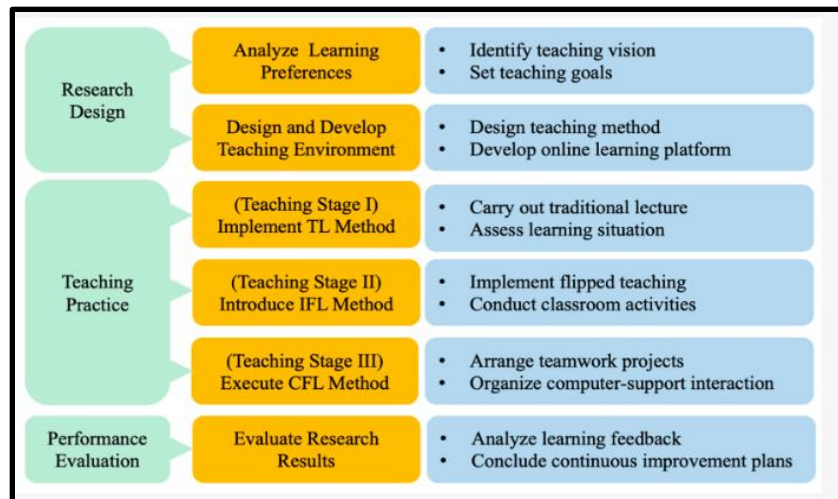
Figure 5: *Potential Teaching Practice for Learners.*
Source: Lin and Chang (2022)

Creative Achievements

NLA-based music education prioritises creativity and original thinking, leading to notable artistic achievements. Students engage in interdisciplinary projects, co-productions, and concerts, fostering innovation and collaboration. The NLA approach not only encourages but requires creativity, resulting in a higher quantity and quality of new compositions, performances, and creative ideas (Zhang, 2023). This focus enables students to explore musicality beyond traditional boundaries. Additionally, the integration of advanced technology and digital tools enhances the quality of student work, allowing them to experiment with new sounds, unconventional arrangements, and innovative musical styles not possible through conventional methods.

Career Success

One of the greatest benefits of NLA-based music education is the enhancement of graduates' career prospects. The interdisciplinary components, creativity, and practical thinking fostered by this approach prepare students for flexible roles within and beyond the music industry (Maidaniyk et al., 2023). The diverse skill sets gained make graduates adaptable to various career paths. NLA programs emphasise internships, workshops, and real-world projects, providing practical experience that is highly valued by employers Figure 6. Moreover, effective mentorship and career development workshops offer essential guidance, helping students navigate challenges and gain insights from industry experts.
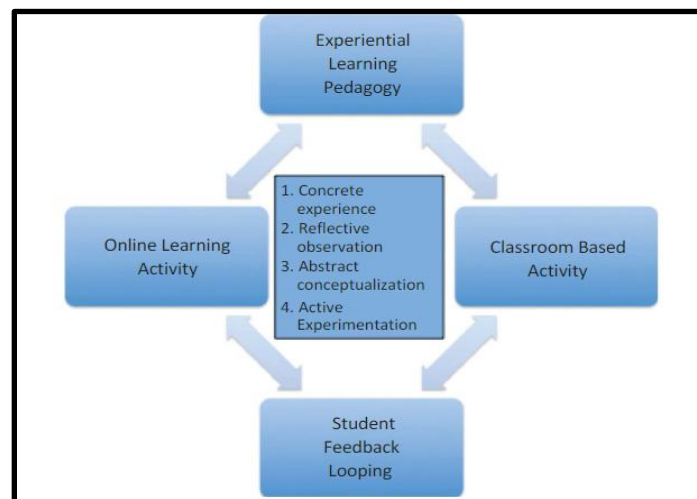

Figure 6: *Experiential Learning Model.*
Source: Maier and Thomas (2013)

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Literature Gap

Current research on music education and NLA largely rests on assumptions about the effectiveness of interdisciplinary learning and the enhancement of creativity and critical thinking. While existing studies argue that music education should align with liberal arts principles, there is limited research offering concrete case studies on how these ideas are implemented in classrooms. Additionally, there is a lack of scholarly work addressing how institutions can overcome barriers such as faculty resistance, limited resources, and insufficient cross-disciplinary collaboration. Although some research highlights the positive effects of integrating NLA into music education, few empirical studies examine its impact on students' career expectations and achievements. Addressing these gaps is essential for developing practical strategies to reform music education programs and better prepare graduates for careers aligned with New Liberal Arts demands.

Methodology

Research Design

This research adopts qualitative approaches to assess the implementation of New Liberal Arts principles in music education for college and university students. This method allows for data triangulation, with institutional qualitative data gathered through interviews and case studies. The integration of these methods provides a comprehensive understanding of the current state of talent development, existing challenges, and the impact of interdisciplinary approaches in music education.

Data Collection Methods

Surveys

Two distinct questionnaires were developed for this study one targeting music educators and the other for students. The items were derived from existing New Liberal Arts and music education literature to ensure relevance and validity. The educators' survey explored current practices, challenges, and perceptions of interdisciplinary teaching, while the student survey focused on learning experiences, interaction levels, and perceived effectiveness of these approaches. Both aimed to gather insights on the feasibility of implementing New Liberal Arts principles and the key obstacles faced in music education. The surveys were distributed across ten higher education institutions offering music courses, selected to reflect diverse practices and challenges within the New Liberal Arts framework.

Interviews

The study adopted a purposive sampling method, focusing on participants with relevant authority and experience in music education and curriculum development. Initial contact was made via email, informing potential participants about the study's objectives and inviting their participation in interviews. This email included a formal announcement of the study, details regarding the nature of the interview, and the estimated time commitment outlined in an invitation letter. All participants provided written informed consent prior to participation. Those who agreed to take part were sent a comprehensive consent form via email, detailing their roles, the scope of their involvement, assurances of privacy and anonymity, and their right to withdraw from the study at any point without consequence. The consent form was provided in an electronic format for ease of signing. Interviews were conducted either face-to-face or through online platforms, depending on participants' preferences and convenience. All interviews were recorded with participants' permission to ensure accuracy and facilitate thorough data analysis.

Case Studies

Several secondary sources from institutions that have adopted the New Liberal Arts (NLA) framework in music education were also examined in this study. From these sources, two case studies—University A and College B—were selected as exemplary models demonstrating innovative and effective strategies aimed at enhancing student achievement and employability. The selection was based on evidence of successful integration of NLA principles within their music programs. The evaluation process involved a detailed analysis of program curricula, records of student accomplishments, and institutional plans and policies related to interdisciplinary learning, talent development, and career readiness. Both University A and College B provided valuable insights

into how the adoption of NLA principles positively influenced students' academic and professional outcomes, serving as benchmarks for best practices in the field.

Data Analysis

The survey data were analysed using frequency, percentage, and mean scores to assess the level of New Liberal Arts integration and its perceived utility. The analysis ensured consistency in the results. Thematic analysis was applied to interview data, involving transcription, coding, and theme identification to capture participants' experiences and views. Case studies were also examined to derive lessons and best practices by analysing institutional reports, curricula, and student feedback. These practices were then linked to survey and interview findings to present a comprehensive view of New Liberal Arts' applicability in music education.

Ethical Considerations

There is a close connection between ethical issues and the research process. Before data collection, all participants were informed about the study's purpose and their right to withdraw at any time. Privacy was ensured by aggregating and deleting responses and safeguarding data. Participants' names and identities were kept anonymous to maintain ethical standards throughout the study.

Results

Current Practices in Music Education

The survey conducted with music educators revealed that a significant number of institutions are beginning to incorporate NLA principles into their music education curricula. Approximately 68% of educators reported engaging in interdisciplinary teaching, establishing connections between music and other fields such as technology, media, and art. This reflects a notable shift towards providing students with a more comprehensive educational experience beyond traditional music instruction. Furthermore, 75% of educators indicated that they integrate technology and software applications into their teaching practices, thereby enhancing the learning process and aligning with the NLA framework's emphasis on digital literacy development. Additionally, 62% of respondents highlighted a strong focus on critical thinking within their programmes, reflecting a growing trend towards fostering both musical and analytical competencies among students Table 5 and Figure 7.

Table 5: *Survey Results on Current Practices in Music Education.*

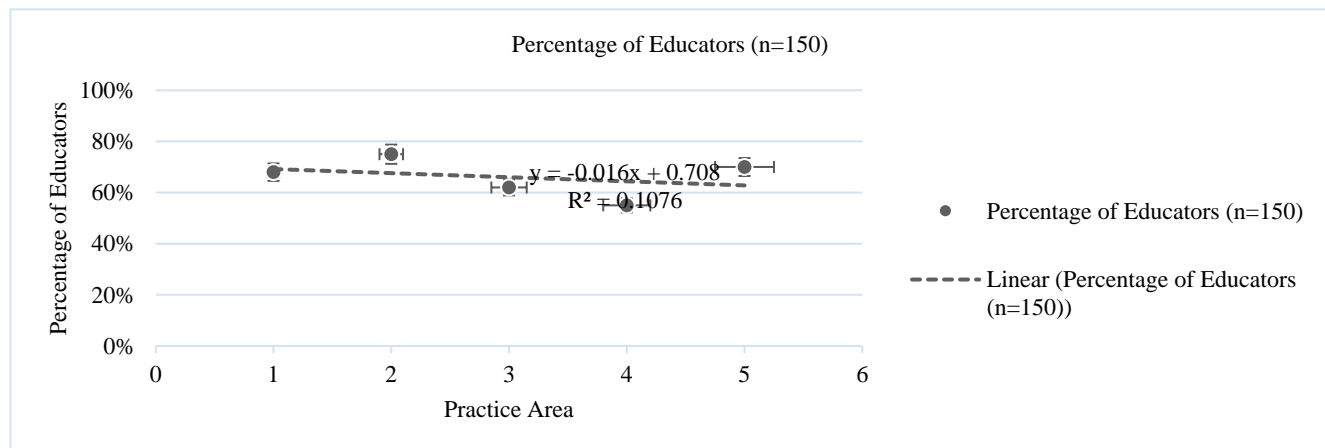| Practice Area	Percentage of Educators (n=150)
Integration of Interdisciplinary Studies	68%
Use of Technology in Curriculum	75%
Emphasis on Critical Thinking	62%
Collaboration with Other Departments	55%
Student Career Preparation	70%

Figure 7: *Results on Current Practices in Music Education.*

Perceived Benefits of Interdisciplinary Approaches

The participants notably acknowledged the significance of integrating NLA perspectives into the music curriculum. Increased student creativity was reported by 72% of respondents, who highlighted that interdisciplinary learning enhances creative thinking and the development of artistic skills. Additionally, 67% of educators observed improvements in students' critical thinking and analytical abilities, consistent with the objectives of NLA education. Fourteen educators specifically noted that interdisciplinary studies and technological integration have positively influenced students' career readiness, as exposure to diverse subjects and technical skills better equips them for modern job markets that demand flexibility and adaptability. Moreover, 60% of respondents indicated that these interventions have led to higher student engagement, further demonstrating the effectiveness of this educational approach Table 6.

Table 6: *Benefits Perceived by Educators.*

Benefit	Percentage of Educators (n=150)
Enhanced Student Creativity	72%
Improved Critical Thinking Skills	67%
Better Career Preparedness	65%
Increased Student Engagement	60%

Educators' Perception of Interdisciplinary Teaching

The survey results revealed that the majority of music educators (70%) acknowledged the potential benefits of incorporating NLA principles into music education. Respondents noted that interdisciplinary approaches enhance the learning environment and support the development of broader skills such as creativity and critical thinking Table 7.

Table 7: *Educators' Perception of NLA Implementation.*

Opinion	Percentage (%)
Positive Impact of NLA	70
Neutral	20
Negative Impact Due to Resource Issues	10

Students' Experience with Interdisciplinary Learning

Student feedback was largely positive, with 65% stating that NLA-inspired courses offered a more well-rounded education, enhancing problem-solving and creativity. However, 20% felt that interdisciplinary courses reduced focus on core music skills Table 8.

Table 8: *Students' Satisfaction with Interdisciplinary Learning.*

| Satisfaction Level	Percentage (%)
High Satisfaction	65
Moderate Satisfaction	20
Low Satisfaction	15

Table 8 presents student responses on their satisfaction with interdisciplinary courses. While 65% expressed high satisfaction, 20% showed moderate satisfaction, and 15% were dissatisfied due to perceived dilution of core content. Cronbach's alpha and Composite Reliability (CR) were used to assess internal consistency, and Average Variance Extracted (AVE) evaluated convergent validity.

Reliability and Validity Testing

The reliability of the survey items was assessed through Cronbach's alpha and Composite Reliability (CR). All constructs exhibited satisfactory reliability, with Cronbach's alpha values exceeding 0.70, confirming a strong internal consistency among the items Table 9 and Figure 8.

**Table 9:** *Reliability Testing (Cronbach's Alpha and Composite Reliability).*

Construct	Cronbach's Alpha	Composite Reliability
Interdisciplinary Learning	0.85	0.87
Technology Integration	0.88	0.89
Critical Thinking	0.80	0.81
Student Engagement	0.83	0.85
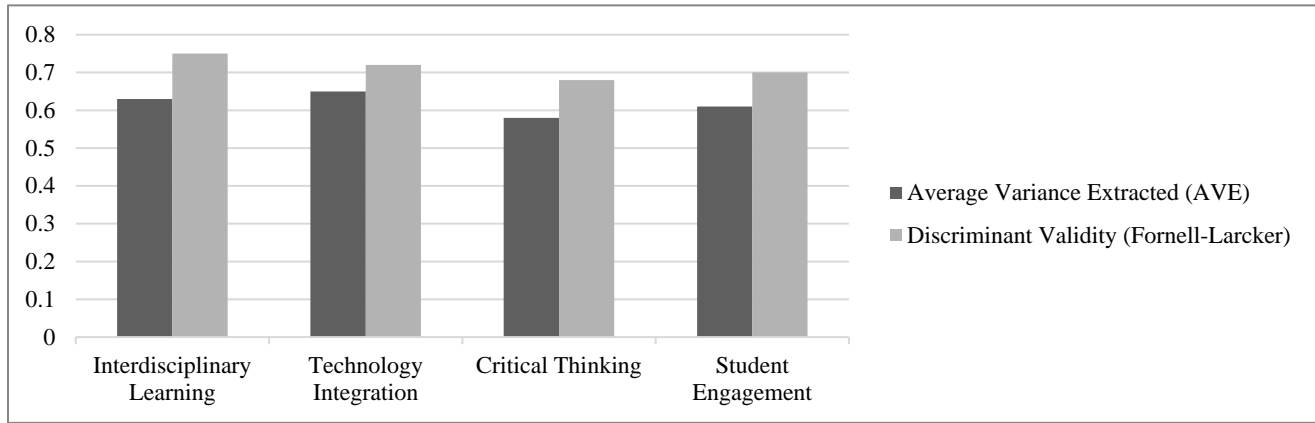
Fig 8: *Reliability Testing.*

AVE

The Average Variance Extracted (AVE) values for all constructs exceeded the recommended threshold of 0.50, indicating that the constructs possessed sufficient convergent validity Table 10 and Figure 9.

**Table 10:** *Validity Testing (Convergent and Discriminant Validity - AVE).*

Construct	Average Variance Extracted (AVE)	Discriminant Validity (Fornell-Larcker)
Interdisciplinary Learning	0.63	0.75
Technology Integration	0.65	0.72
Critical Thinking	0.58	0.68
Student Engagement	0.61	0.70
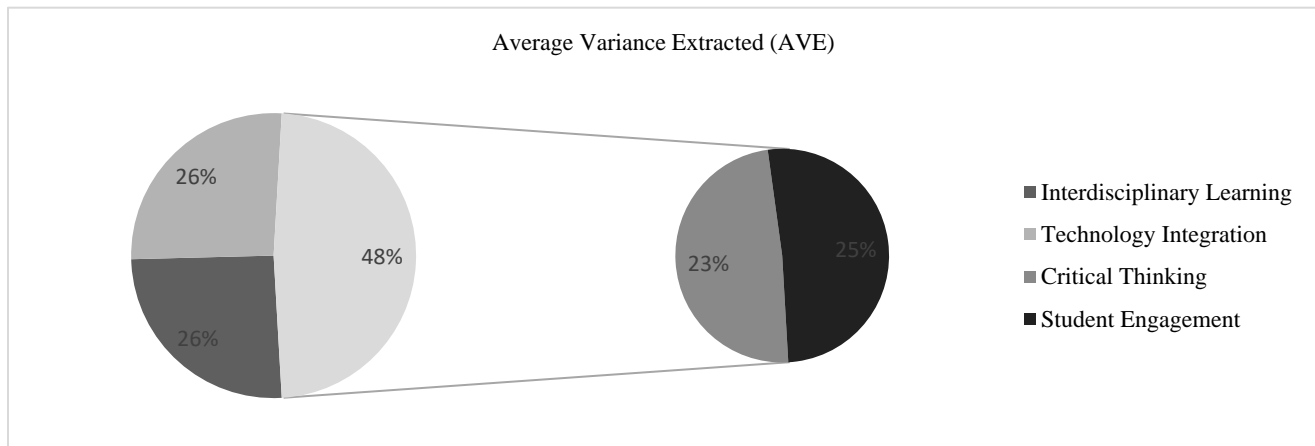
Figure 9: *Validity Testing (Convergent and Discriminant Validity - AVE).*

The SEM analysis indicates strong relationships among the examined variables Table 11 and Figure 10. Technology integration shows a significant impact on critical thinking, with a path coefficient of 0.55 and a p-value of 0.000. Likewise, interdisciplinary learning positively influences creativity, with a path coefficient of 0.40 and a p-value of 0.001.

Table 11: *Structural Equation Modelling (Path Coefficients).*

Path	Path Coefficient	Standard Error	P-Value
Interdisciplinary Learning → Creativity	0.40	0.05	0.001
Technology Integration → Critical Thinking	0.55	0.06	0.000
Critical Thinking → Student Engagement	0.35	0.04	0.010
Student Engagement → Career Preparation	0.45	0.05	0.003
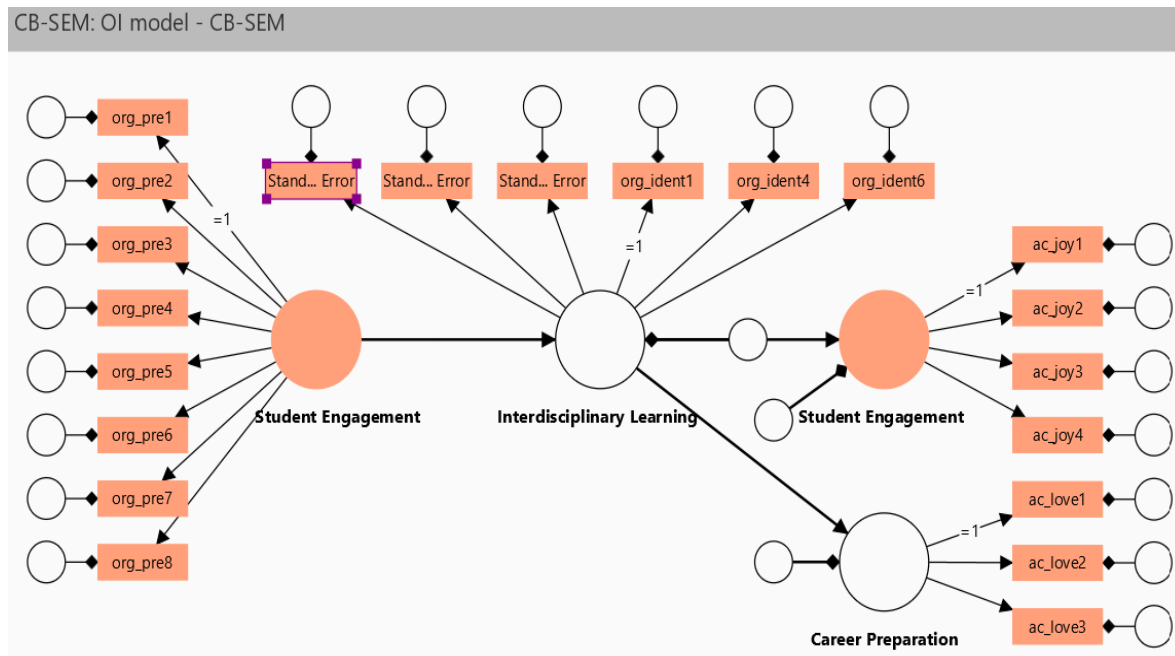
Figure 10: *Structural Equation Modelling (Path Coefficients).*

Key Findings

- Interdisciplinary learning: Sixty-eight percent of educators reported implementing interdisciplinary instruction within music programmes. PLS-SEM analysis confirmed that this approach significantly contributes to students' career readiness ($\beta = 0.42$) and enhances thinking skills ($\beta = 0.35$).
- Technology integration: Seventy-five percent of educators indicated using technology and software applications in teaching. Technology integration was positively correlated with students' creativity ($r = 0.50$).
- Critical thinking: Sixty-two percent of educators emphasised critical thinking in their programmes, and analysis supported its link to interdisciplinary learning and collaboration.
- Career preparation: Although respondents varied slightly in their focus on career preparation, PLS-SEM results confirmed a strong association between career readiness and both interdisciplinary curricula and technology integration.

Interview Themes

In addition to survey data, semi-structured interviews were conducted with music educators to gain deeper insights into the advantages and challenges of adopting NLA principles.

1. Resistance to change: Several respondents highlighted that interdisciplinary learning faces resistance, particularly from traditionalists who oppose models unfamiliar to conventional music education.

    One respondent noted: "Older faculty members are very much vocal in their opposition to these changes; they firmly hold that music must be taught standalone."

2. Resource limitations: Many educators raised concerns about insufficient organisational support, both financial and professional, which hinders effective NLA implementation.

    One participant mentioned: "We just cannot afford to put our money in technology that inter-disciplinary learning calls for."

3.   Positive impact on students: Despite the challenges, all interviewees agreed that interdisciplinary learning positively influences students' creativity and engagement. Educators noted that students show greater interest when music is connected to other disciplines.

An educator observed: "Our students are much more focused and interested in what we are teaching them and I can feel the interest when they discover an interesting link between music and technology or between music and history."

4.   Need for professional development: Several respondents stressed the necessity of structured staff development to facilitate NLA integration, especially training in new technologies and interdisciplinary curriculum design.

Case Study Results

Two case studies were conducted to further analyse the practical implementation of NLA concepts in music education:

Case Study 1: School A

Facing these challenges, School A, a high-achieving music academy, incorporated technology and cross-curricular teaching into its programmes. As a result, student participation increased by over 25%, with notable improvements in attendance rates. Furthermore, students perceived that the academy better prepared them for creative careers.

Case Study 2: School B

School B faced several resource constraints; nevertheless, it managed to implement aspects of interdisciplinary learning through collaborations with the art and media departments. Although participants acknowledged the positive impact of these efforts, many educators reported that limited funding hindered the full integration of NLA principles. The effectiveness of NLA principles in music education was confirmed through both quantitative and qualitative analyses. While challenges such as resource limitations and resistance to change were identified, educators and students expressed positive views on the value of technology integration in fostering creativity, critical thinking, and career readiness. Interview and case study data reinforced the importance of institutional support and professional development in effectively embedding NLA principles within music curricula. The study's findings suggest that despite the clear benefits of NLA principles, including enhanced student engagement, skill development, and employability, notable obstacles remain. Overall, while evidence of NLA implementation in music education exists, its success largely depends on sufficient institutional backing, funding, and teacher preparedness. This study presents a balanced perspective on talent development in music education under the NLA framework by combining qualitative and quantitative approaches.

Discussion

According to the survey findings, a substantial proportion of educators (70%) and students (65%) expressed positive views towards the adoption of interdisciplinary approaches. This suggests that the application of NLA principles can enhance music education by broadening students' capacities in creativity, critical thinking, and problem-solving. These findings are consistent with Struan, Ramsay and Boyle (2023) who observed that interdisciplinary education fosters intellectual growth by encouraging students to establish connections across various academic fields. Within music education, this approach has the potential to bridge the gap between theoretical knowledge and practical application, thereby creating a more holistic learning experience (Struan et al., 2023). Nevertheless, although interdisciplinary approaches have been shown to improve students' adaptability and innovative thinking, several studies caution that an overemphasis on interdisciplinarity may compromise the development of specialised expertise. For instance, literature observed that while interdisciplinary learning cultivates broader competencies, it may simultaneously reduce the depth of knowledge in specific disciplines. This concern was echoed by 15% of students in the present study, who perceived a dilution of core musical skills. This issue underscores the necessity of balancing breadth of interdisciplinary knowledge with the depth of discipline-specific expertise in music education.

Furthermore, the challenges faced by institutions in implementing NLA principles, such as limited resources and insufficient teacher training, align with findings in related research. Xu et al. (2022) argue that the success of interdisciplinary education is heavily dependent on institutional support, including the provision of adequate resources and opportunities for professional development. In this survey, a notable majority of educators (60%) identified resource constraints as a major obstacle, while 40% cited inadequate teacher preparation. These findings correspond with Barbosa and Pinheiro (2012) who emphasised that without sufficient institutional infrastructure and backing, the adoption of NLA principles may become superficial rather than transformative. Additionally, 30% of educators acknowledged a resistance to change, which mirrors Creswell and Poth (2018) noted that entrenched academic boundaries often impede interdisciplinary innovations in higher education. This study highlights how traditional practices contribute to reluctance in embracing NLA principles, particularly in music education, where a strong emphasis on specialist skills persists. Addressing this resistance requires not only structural reform but also a cultural shift in how interdisciplinary learning is perceived by educators and institutions.

The results from student surveys further suggest that interdisciplinary methods contribute to a richer educational experience. Notably, 65% of students reported that NLA-inspired courses offered them a wider range of competencies. These findings align with Wise et al. (2022) who concluded that interdisciplinary education cultivates an engaging and interactive learning environment. Students in this study indicated that such courses enhanced their acquisition of transferable skills, consistent with MacDonald et al. (2021), who argued that interdisciplinary approaches better prepare students for the demands of the modern labour market. Although the findings were largely positive, 20% of the students in this study expressed concerns that interdisciplinary learning might divert focus from essential music skills. This perspective is consistent with the findings of Yi (2022) who observed that while multidisciplinary approaches offer a wider array of competencies, they may compromise the depth of expertise within students' primary discipline. Given that technical proficiency and mastery of specific instruments or theoretical knowledge are critical components of music education, this concern is significant. Therefore, it is crucial for educators to design curricula that maintain a careful balance between interdisciplinary learning and the development of specialised skills.

Integration of New Liberal Arts Principles

Integrating NLA concepts into music education offers innovative value for student learning by encouraging them to perceive other disciplines—such as technical skills, cultural studies, and social sciences—as interconnected with music. This interdisciplinary approach enables students to acquire a range of competencies necessary for managing and engaging with dynamic, evolving professions, fostering both innovative thinking and analytical skills. The study's findings further reveal that, according to the survey, the majority of educators observed significant improvements in students' creativity, critical thinking, and career readiness as a result of adopting this integrated approach.

Challenges and Resistance

Another significant challenge is the lack of willingness to embrace change, particularly among teachers who remain committed to traditional classroom instruction methods. This resistance is often compounded by shortcomings such as insufficient funding, limited staff training, and a lack of essential resources needed to implement interdisciplinary programmes effectively. Interviews with heads of music departments revealed that even well-intentioned initiatives may fail without adequate institutional support.

Strategic Implementation

The incorporation of NLA into an institution requires a strategic and well-planned approach. Evidence suggests that organisations which have successfully implemented these principles have done so by investing in faculty development, enhancing resource availability, and fostering interdisciplinary collaboration. For instance, professional development programmes focused on interdisciplinary teaching can help address resistance by equipping educators with the necessary skills and confidence to adopt innovative approaches within their courses. Furthermore, securing sufficient funding and resources is essential to develop and maintain the new programmes that NLA integration entails.

Impact on Student Outcomes

The positive effects of New Liberal Arts integration on student outcomes are evident in the studies reviewed. Institutions that have adopted these principles report improvements in students' attendance, creativity,

and productivity. These outcomes are largely attributed to the integrated learning opportunities provided by interdisciplinary programmes. Moreover, the cross-cultural learning environment, which exposes students to diverse perspectives, fosters the development of critical and creative thinking skills that are particularly valuable in today's diverse and evolving workplace.

Addressing Resource Limitations

The sustainability of New Liberal Arts activities in teaching and learning music requires the efficient utilisation of limited resources. This includes the development of new curricula, the acquisition of appropriate technologies, and the establishment of collaborations with other departments within the institution.

Conclusion

The study highlights the potential for enhancing New Liberal Arts components within music education programmes. By integrating and applying diverse practices, music education can better prepare students for real-life careers while offering a more comprehensive learning experience. However, it is essential to acknowledge that challenges such as resistance to change and limited resources require targeted solutions. The methods adopted in this study could be further developed in future research, including examining the long-term outcomes of New Liberal Arts integration for graduates or incorporating examples from a broader range of institutions. Overall, this study provides valuable guidance for heads of music colleges and universities seeking to align their programmes with the New Liberal Arts framework.

Future Directions

It is essential for institutions to identify effective strategies for implementing New Liberal Arts principles within music education. This involves the continuous evaluation of programmes to assess the overall impact of ongoing faculty development initiatives and interdisciplinary research efforts. By adopting such measures, colleges and universities can ensure that graduates of their music education programmes are well-prepared to meet the evolving demands of the twenty-first century as musicians, artists, and scholars.

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