

An Investigation Study Investigating Prospective Innovative Pedagogical Strategies For The Teaching Of Music In Institutions Of Higher Learning

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ABSTRACT

Worldwide, more and more individuals are starting to understand the value of music pedagogy and systematic instruction. Because they are founded on instruction that is well-informed and research-based, piano lessons have the ability to connect the non-professional piano teaching sector with the academic world. In addition, the study investigates how these evaluations of the adequateness of their piano training might impact how they use different piano abilities while instructing students. The researcher included twelve distinct functional piano talents in the questionnaire they created. Improvisation, sight reading, accompaniment, playing piano repertoire, composition, techniques, literature that consumes scores, harmonisation, transposition, modulation, and melodic progressions were all part of this set of abilities. This study uses quantitative data to look at the relationships between music education and things like morality, people, psychological well-being, brain development, and creative problem-solving abilities. These results provide credence to the theory that musical exposure greatly improves children's overall competence. This study lends further weight to the hypothesis since it quantitatively assessed the links between music education and various skills. The research fills a need in the literature by doing a quantitative analysis of music education. The researchers also provide important recommendations for how colleges and universities might improve their involvement, curriculum development, and assessment in this area. This was examined in light of the globally recognized best practices by comparing it to group piano instruction in Malaysian school settings.

Keywords: Learning, Higher Learning Organizations, Piano Education, Students.

1. INTRODUCTION

There is no way to separate the growth and trajectory of global communities from education. An important part of this is music education, which may be defined as a process informed by instructors' own experiences and guided by a set curriculum delivered in a methodical and intentional manner (Díaz-Millón et al., 2020). Conversely, effective music education requires methodical planning and undivided attention. According to popular belief, students can only make progress in their technique and musicality with the help of a well-organized curriculum and enthusiastic, knowledgeable instructors. Also, research shows that instrumental training is an important part of music education for many reasons, such as helping students become better musicians and expanding their understanding of music in general. In schools with a strict music curriculum that emphasizes Western classical music, piano lessons are often given a lot of stage time. Along with being the most popular major for instrumental studies at Lincoln University College's conservatoires and music departments, it is also often found as a minor or auxiliary topic alongside many other majors in instrumental learning. Improving one's note reading and listening skills, as well as one's understanding of musical theory, harmony, and form, are all possible outcomes of piano instruction. Courses that make up a global curriculum include a wide range of topics, including technical exercises and studies, compositions by Western, global, and regional composers, the history and literature of the piano, and different approaches to teaching and studying the instrument. Improving piano instruction is crucial because it affects the following postgraduation occupations that music majors select. A musician's career path is fraught with mystery, so it's understandable that music students can struggle to grasp the idea of career progression. The ability to play the piano is relevant because it is often required for many music-related jobs, including teaching private lessons, performing professionally, and teaching at universities like Lincoln University and others. On top of that, it has practical use in the portfolios of several artists (Ferrero et al., 2021).

2. BACKGROUND OF THE STUDY

By looking at new ways of teaching piano at art schools, researchers are trying to understand how music education is changing in specialized institutions. Traditional piano instruction has mostly focused on technique, repertoire, and performance requirements within the framework of classical frameworks (Iglesias-Vidal et al., 2020). There is an increasing

need to explore alternative strategies that are compatible with contemporary educational demands, the diversity of creative expression, and the most recent technological advances, even though these methods have proven useful for basic training. Piano instruction has to evolve to meet the numerous needs of modern students in the setting of art schools, where interdisciplinary study and creative expression are of paramount significance. More in-depth engagement, critical thinking, and creative expression may be achieved with the use of creative approaches including improvisation, composition, multimedia, and collaborative learning. Technological developments like digital tools, virtual learning environments, and interactive music software have further expanded the alternatives for piano instruction. With these innovations, personalization, accessibility, and discovery are no longer limited to the four walls of a traditional studio. The study's overarching goal is to provide fresh, art-institution-specific educational strategies by reviewing the various existing methods. This investigation looks at past and contemporary methods of music instruction in an effort to clarify the ever-changing dynamic between tradition and innovation in this area. It hopes that by taking this action, it can help these schools create a flexible, student-centered, and innovative piano program (Hogle & Bramble, 2020).

3. PURPOSE OF THE RESEARCH

In the context of art colleges, the objective of this project is to investigate and assess novel instructional approaches for teaching piano and other musical instruments. The purpose of this research is to find and create methods that are compatible with the multidisciplinary and creative spirit of art colleges, while also enhancing artistic expression, technical competency, and creative thinking. The purpose of this study is to make a contribution to the development of piano pedagogy at art colleges, with the goal of ensuring that it continues to be successful, relevant, and sensitive to the requirements of modern students and the wider artistic scene.

4. LITERATURE REVIEW

There has been a progression from classical to contemporary methods in the literature on piano pedagogy, reflecting changes in educational philosophy and practice. According to (MacDonald et al., 2021), classical piano instruction has historically prioritized technical proficiency, expanding one's repertoire, and performance skills, drawing from the teachings of pedagogues such as Carl Czerny and Heinrich Neuhaus. While these approaches are great for teaching classical skill and establishing routines, they don't necessarily provide enough space for original thought or the fulfilment of unique creative needs. These days, classroom practices are more student-centered and experiential, with a focus on group work and other forms of collaborative learning. Improvisation, composition, and reflection are essential components of music education because they encourage critical thinking and artistic expression. These methods mesh well with the ethos of art institutions, which place a premium on creativity and cross-disciplinary research. New technology has also had a significant impact on the traditional method of teaching piano. With the rise of digital technology like MIDI-enabled instruments, interactive apps, and online platforms, new avenues for involvement, instant feedback, and personalized learning have opened up. According to studies, these technologies have the potential to inspire more innovative methods of instruction, boost student engagement, and level the playing field. The proliferation of online and hybrid classrooms has substantially expanded the options for flexible, self-paced, and remote piano lessons. Art institutions, which value the development of the whole artist, are well-suited to the integration of piano studies with other disciplines (Li, 2020).

5. RESEARCH QUESTION

• How Does Interdisciplinary Learning Affect Piano Lessons at Art Colleges?

6. RESEARCH METHODOLOGY

6.1 Research design:

The quantitative data analysis was performed using SPSS version 25. The odds ratio and 95% confidence interval were used to determine the degree and direction of the statistical association. The researchers established a statistically significant criteria at p < 0.05. A descriptive analysis was conducted to identify the main features of the data. Quantitative methods are often used to assess data acquired via surveys, polls, and questionnaires, together with data altered by computing tools for statistical analysis.

6.2 Sampling:

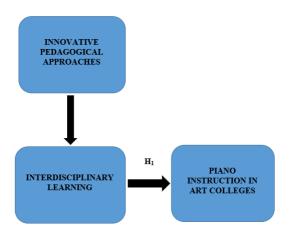
Rao-soft software was used to estimate the sample size of 390 questionnaires were distributed, 480 questionnaires were returned, and lastly, 80 questionnaires were rejected owing to incompletion of the questionnaire. In the end, 400 questionnaires were used for the research.

6.3 Data and Measurement:

Quantitative analysis was used to collect primary data for the study endeavor. The survey was divided into two sections: (a) demographic information; and (b) responses on factors for both online and offline channels using a 5-point Likert scale. Researchers collect secondary data from several sources, mostly the internet.

- 6.4 Statistical Software: The statistical analysis was conducted using SPSS 25 and MS-Excel.
- **6.5 Statistical Tools:** To grasp the fundamental character of the data, descriptive analysis was used. The researcher is required to analyse the data using ANOVA.

7. CONCEPTUAL FRAMEWORK



8. RESULTS

• Factor Analysis

One typical use of Factor Analysis (FA) is to verify the existence of latent components in observable data. When there are not easily observable visual or diagnostic markers, it is common practice to utilise regression coefficients to produce ratings. In FA, models are essential for success. Finding mistakes, intrusions, and obvious connections are the aims of modelling. One way to assess datasets produced by multiple regression studies is with the use of the Kaiser-Meyer-Olkin (KMO) Test. They verify that the model and sample variables are representative. According to the numbers, there is data duplication. When the proportions are less, the data is easier to understand. For KMO, the output is a number between zero and one. If the KMO value is between 0.8 and 1, then the sample size should be enough. These are the permissible boundaries, according to Kaiser: The following are the acceptance criteria set by Kaiser:

A pitiful 0.050 to 0.059, below average 0.60 to 0.69

Middle grades often fall within the range of 0.70-0.79.

With a quality point score ranging from 0.80 to 0.89.

They marvel at the range of 0.90 to 1.00.

Table1: KMO and Bartlett's Test

Testing for KMO and Bartlett's

Sampling Adequacy Measured by Kaiser-Meyer-Olkin .860

The results of Bartlett's test of sphericity are as follows: approx. chi-square

df=190

sig.=.000

This establishes the validity of assertions made only for the purpose of sampling. To ensure the relevance of the correlation matrices, researchers used Bartlett's Test of Sphericity. Kaiser-Meyer-Olkin states that a result of 0.860 indicates that the sample is adequate. The p-value is 0.00, as per Bartlett's sphericity test. A favourable result from Bartlett's sphericity test indicates that the correlation matrix is not an identity matrix.

Table: KMO and Bartlett's

| KMO and Bartlett's Test | | | | | |
|--|--------------------|----------|--|--|--|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy860 | | | | | |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 3252.968 | | | |
| | df | 190 | | | |
| | Sig. | .000 | | | |

The significance of the correlation matrices was further confirmed using Bartlett's Test of Sphericity. The Kaiser-Meyer-Olkin measure of sampling adequacy is 0.860. Utilizing Bartlett's sphericity test, researchers acquired a p-value of 0.00. A significant outcome from Bartlett's sphericity test revealed that the correlation matrix is invalid.

• INDEPENDENT VARIABLE

Innovative Pedagogical Approaches:

The needs of an increasingly varied and globalised student population are challenging the status quo of traditional understanding on student education. Revolutionary strategies for fostering engagement, analysis, innovation, collaboration, and lifelong learning are offered by contemporary pedagogical practices. Using technology advancements, interdisciplinary perspectives, and a focus on student-centered learning, these approaches facilitate a more inclusive and engaging educational experience. Teaching tactics and methods that emphasize creativity, flexibility, and student-centered learning are known as innovative pedagogical approaches. These approaches aim to enrich the educational experience. By integrating contemporary technology, collaborative practices, and real-world problem-solving, these methods aim to depart from conventional, one-size-fits-all forms of education. In order to make sure that learning is relevant, inclusive, and individualized, they center their efforts on getting students involved in the learning process, which in turn develops their critical thinking, creative capacities, and social skills. To prepare students to succeed in a dynamic and unpredictable environment, innovative pedagogy employs strategies like as project-based learning, interdisciplinary teaching, and flipped classrooms (Bond et al., 2023).

• FACTOR

• Interdisciplinary Learning:

The term "interdisciplinary learning" refers to a style of teaching that draws on a wide range of academic fields to investigate a single topic, issue, or question. Interdisciplinary education encourages students to consider problems from several perspectives by highlighting the interconnections across traditionally separate disciplines, such as science, literature, and history. Students are encouraged to think critically and consider how ideas from diverse fields may enrich and enrich one another via this method, which goes beyond the confines of certain topics. Students are better prepared to deal with real-world challenges that do not adhere to a simple classification system when they acquire a more complete and nuanced knowledge of complicated subjects via the integration of knowledge across disciplines. Working with peers from diverse academic backgrounds to synthesize knowledge and develop novel solutions is a common component of interdisciplinary learning, which not only fosters intellectual curiosity but also encourages creativity, teamwork, and problem-solving abilities. Interdisciplinary education gives students the skills they need to adapt to a complicated global environment and think holistically, which are essential in today's fast-paced, multi-faceted world (Farmer et al., 2020).

• DEPENDENT VARIABLE

Piano Instruction in Art Colleges:

A piano teacher at an art college will work one-on-one with each student to help them become proficient pianists who can express themselves creatively through their playing. Teaching students to read music and play notes is only the beginning; in these classes, students develop their capacity to interpret and execute music with nuance, imagination, and flair. Piano lessons are a common part of the art college curriculum, which aims to foster interdisciplinary learning by providing students with opportunities to study not just performance but also music history, composition, and theory. Art college professors encourage students to develop their own creative voices while also fostering an in-depth knowledge of musical traditions, genres, and methods. The researchers strive to provide a comprehensive education that helps students grow as artists and prepares them for jobs as pianists. In this setting, learning to play the piano is about more than simply getting a degree; it's about finding the research voice and sharing the researcher experiences via music. Recitals, group performances, and chances for students to work with other musicians are all possibilities. Students are encouraged to participate in creative pursuits and grow into multi-faceted, expressive artists via an all-encompassing method, which helps them improve their piano skills while simultaneously encouraging an appreciation of music as an art form (Herremans & Chuan, 2020).

Relationship Between Interdisciplinary Learning and Piano Instruction in Art Colleges

The foundational principle of the link between interdisciplinary learning and piano training at art colleges is that the integration of many academic and artistic fields may substantially enhance musical education, especially as it pertains to the piano (Pereira, 2020). Students at art schools often learn more than just the fundamentals of playing the piano; their teachers push them to reflect on the history, theory, and practice of music as a performing art form that is intricately related to visual arts, literature, dance, and theater. Students get a more complete picture of music and its function in art as a whole when they draw on knowledge from these several disciplines. A piano student, for instance, may look into the composers' and their works' historical contexts to see how social, political, and cultural trends shaped the music they're playing. Incorporating information from disciplines such as literature may enrich this cultural and historical investigation by providing light on the feelings, ideas, and stories expressed in a musical composition. Music students can collaborate with visual artists, dancers, or theater performers as part of an interdisciplinary course of study; this opens up exciting possibilities for cross-media performances and creative partnerships that enrich students' knowledge of music and other art forms. Creativity and flexibility are also encouraged via interdisciplinary learning in the framework of piano lessons. In their musical compositions or interpretations, students may try out new techniques for tackling classic pieces or even combine musical genres, drawing on their understanding of other creative disciplines (Melchiorre et al., 2021).

On the basis of the above discussion, the researcher formulated the following hypothesis, which was to analyse the relationship between Interdisciplinary Learning and Piano Instruction in Art Colleges.

"Ho1: There is no significant relationship between Interdisciplinary Learning and Piano Instruction in Art Colleges."

"H1: There is a significant relationship between Interdisciplinary Learning and Piano Instruction in Art Colleges."

| ANOVA | | | | | | | |
|----------------|----------------|-----|-------------|----------|------|--|--|
| Sum | | | | | | | |
| | Sum of Squares | df | Mean Square | F | Sig. | | |
| Between Groups | 39588.620 | 115 | 5635.427 | 1032.886 | .000 | | |
| Within Groups | 492.770 | 284 | 5.456 | | | | |
| Total | 40081.390 | 399 | | | | | |

Table 2: H₁ ANOVA Test

The results of the research are significant. The p-value of .000 (below the .05 alpha threshold) indicates that the F value of 1032.886 is significant. This signifies "There is a significant relationship between Interdisciplinary Learning and Piano Instruction in Art Colleges." is accepted and the null hypothesis is rejected.

9. DISCUSSION

Using innovative pedagogical ways to teach piano helps students become more creative, has a more positive impact on their learning experience, and better prepares them for the difficulties of contemporary art. The effectiveness of these approaches is highly dependent on three things: available resources, openness to new ideas, and flexibility in the face of change. By carefully considering these factors, art schools have a better chance of creating a comprehensive musical education curriculum. The main purpose of the project was to find better ways to teach piano at art schools, namely techniques that make students more engaged, creative, and good at remembering what they've learned. Research shows that kids learn a lot more when teachers employ technology in the classroom, especially MIDI interfaces, digital audio tools, and interactive piano applications, so they can see how music works and get immediate feedback. Modern, tech-savvy kids will love these tools since they allow them to experiment with various sounds and compositions. Nevertheless, there were also difficulties highlighted, such as making sure everyone has equal access and keeping a mix of conventional and modern approaches. Additionally, it was emphasized that approaches that include several academic fields are advantageous for nurturing creativity. The incorporation of visual arts or dance into piano instruction, the development of improvisation and composition, and other similar approaches allow students to forge their own unique expression while forging links to their larger creative pursuits. Though useful, these approaches need teachers who can draw from a toolbox of skills and who can strike a balance between creative freedom and technical accuracy.

10. CONCLUSION

The results of this study suggest that new pedagogical approaches may considerably improve piano instruction in art college courses. Educators may create a more dynamic and all-encompassing classroom setting by using technology, encouraging collaboration across disciplines, prioritizing student needs, and incorporating cultural sensitivity and mindfulness techniques. These approaches are consistent with the artistic nature of art schools since they foster innovation, originality, critical thinking, and self-expression while enhancing technical competence. These findings emphasize the need to change traditional

thinking in the classroom to meet the evolving needs of modern pupils. While there are several benefits to implementing these strategies, there are also numerous drawbacks, such as insufficient funding, poor teacher preparation, and the need to strike a balance between tradition and innovation. It is critical to invest in professional development for teachers, adaptability of curriculum, and technological tools for effective implementation. Lastly, students' proficiency on the piano is highly valued in contemporary music and art, and innovative teaching methods have the potential to significantly enhance piano classes in order to fulfill these demands. As long as they teach students to balance their imagination, skill, and self-expression, art schools have a good chance of turning out musicians who can make meaningful contributions to the world of music.

REFERENCES

- [1] Díaz-Millón M., Olvera-Lobo M. D., Rivera-Trigueros I., Gutiérrez-Artacho J. (2020). Disruptive methodologies and cross-curricular competencies for a training adapted to new professional profiles: The undergraduate program in translation and interpreting. In Palahicky S., Keengwe J. (Eds.), *Enhancing learning design for innovative teaching in higher education* (pp. 83–104). IGI Global.
- [2] Ferrero M., Vadillo M. A., León S. P. (2021). Is project-based learning effective among kindergarten and elementary students? A systematic review. *PLoS One*, 16(4), e0249627.
- [3] Hogle L., Bramble C. (2020). Teacher agency through duo ethnography: Pedagogical DNA in a community of learner-Teachers. *The International Journal of Arts Education*, 21(15).
- [4] Iglesias-Vidal E., González-Patiño J., Lalueza J. L., Esteban-Guitart M. (2020). Manifiesto en Tiempos de Pandemia: Por una Educación Crítica, Intergeneracional, Sostenible y Comunitaria. *Revista Internacional de Educación para la Justicia Social*, 9(3), 181–198.
- [5] Li Y. (2020). Application of computer-based auto accompaniment in music education. *International Journal of Emerging Technologies in Learning (iJET)*, 15(06), 140.
- [6] MacDonald R., Burke R., De Nora T., Sappho-Donohue M., Birrell R. (2021). Our virtual tribe: Sustaining and enhancing community via online music improvisation. *Frontiers in Psychology*, 11, 623640.
- [7] Bond, V. L., Vasil, M., Derges, J. D., & Nichols, B. E. (2023). Mentoring graduate students in music education: A mixed-methods phenomenological study. Journal of Research in Music Education, 70(4), 425–448.
- [8] Farmer, E. C., Catalano, A. J., & Halpern, A. J. (2020). Exploring student preference between textbook chapters and adaptive learning lessons in an introductory environmental geology course. TechTrends, 64(1), 150–157.
- [9] Herremans, D., & Chuan, C. H. (2020). The emergence of deep learning: New opportunities for music and audio technologies. Neural Computing and Applications, 32(4), 913–914.
- [10] Melchiorre, A. B., Rekabsaz, N., Parada-Cabaleiro, E., Brandl, S., Lesota, O., & Schedl, M. (2021). Investigating gender fairness of recommendation algorithms in the music domain. Information Processing & Management, 58(5), 102666.
- [11] Pereira, M. V. (2020). Higher education music programs, coloniality, and curriculum. Revista Brasileira De Educação, 25, 1–24.

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