Original Article
ISSN (Online): 2582-7472

ShodhKosh: Journal of Visual and Performing Arts
Special Issue on Reimagining Visual Arts, Media, and Cultural Pedagogy in the Age of Artificial Intelligence 2025 6(1s)

INTEGRATING CHATGPT FOR MUSIC HISTORY EDUCATION

Dhara Parmar [1], Dr. R. Vignesh [2], Ayaan Faiz [3], Ananta Narayana [4], Dr. Satyawan Changadev Hembade [5], Pratibha Sharma [6]

[1] Assistant Professor, Department of Fashion Design, Parul Institute of Design, Parul University, Vadodara, Gujarat, India
[2] Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu, India
[3] Chitkara Centre for Research and Development, Chitkara University, Himachal Pradesh, Solan, India
[4] Assistant Professor, School of Business Management, Noida International University, Greter Noida, India
[5] Associate Professor, Bharati Vidyapeeth (Deemed to be University), Institute of Management and Entrepreneurship Development, Pune, India
[6] Centre of Research Impact and Outcome, Chitkara University, Rajpura, Punjab, India

Received 25 January 2025
Accepted 20 April 2025
Published 10 December 2025

Corresponding Author
Dhara Parmar,
parmar89031@paruluniversity.ac.in

DOI
10.29121/shodhkosh.v6.i1s.2025.6628

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

ABSTRACT

In this paper, the researcher will discuss the possibility of the integration of ChatGPT as the innovative pedagogical tool in teaching music history and how the proposed tool can increase engagement, accessibility, and personalization. The research methodology was a mixed approach and 120 undergraduate learners were used in analyzing the performance of AI-assisted instruction in developing comprehension, creativity, and critical thinking skills in learning historical music. The quantitative findings showed a 78 percent enhancement in conceptual knowledge, a 64 percent growth in attending class and 71 percent higher research output as compared to the conventional lecture based approaches. According to qualitative responses, 82 percent of students felt that ChatGPT was a good addition to understanding complicated historical accounts and composer influences, and changes in style. Nevertheless, issues of factual accuracy (15) and over-dependence (9) were also identified and thus there is a necessity to have a guiding AI use in a structured curriculum. This paper has gone further to explore how ChatGPT can be used as a co-teacher who can be used to simulate historical conversations, create contextual analysis of period of music, and facilitate cross-cultural learning activities that are inclusive of all. It is also presented with ethical and pedagogical concerns, which provides information systems on how responsible AI may be introduced in arts education. In conclusion this paper has demonstrated that when properly guided, ChatGPT will make the study of music history a dynamic and inquisitive experience that unites old and new in a manner that embraces both the traditional academia and intelligent technology.

Keywords: Music History Education, Artificial Intelligence in Learning, Digital Pedagogy, Interactive Learning, Educational Innovation

1. INTRODUCTION

The introduction of artificial intelligence (AI) to education has come with more aspects of the teaching process, the student interaction and accessibility. ChatGPT is one of the many devices that are AI assisted and have been a ground breaking medium of interactive and dynamic learning in any field. ChatGPT introduces some potential dynamism in enhancing the traditional classroom experience in the field of music history education, where contextual understanding, historical analysis and critical interpretation are the main focal point. It enables a learner not only to balance between passive information assimilation and active intellectual inquiry in support of conversational learning and personalized feedback Ali et al. (2024). Technological progress in the evolution of music history has always been important, starting with printed notation, then with digital archives and moving up to the involvement of generative AI, but the participatory and dialogic nature of the latter adds a scholarly discussion and mentor-student interaction aspect Waltzer et al. (2023). The text processing features of ChatGPT make it possible to imitate the dialogues of historical personalities, comment on the stylistic trends, and come up with comparative research on composers and genres. This participant nature does not only increase retention and curiosity, but it democratises the learning of music to students that could potentially be institutionally disadvantaged Van et al. (2023). Moreover, ChatGPT has an adaptable character that allows the teacher to customize learning according to the needs of the learners, which promotes inclusivity and helps to fulfill the needs of different cognitive kinds. This kind of integration helps to promote the multi-cultural and multi-temporal approach to the history of music amongst the students and is in tandem with the contemporary educational objectives of critical thinking and international awareness Totlis et al. (2023).

Figure 1

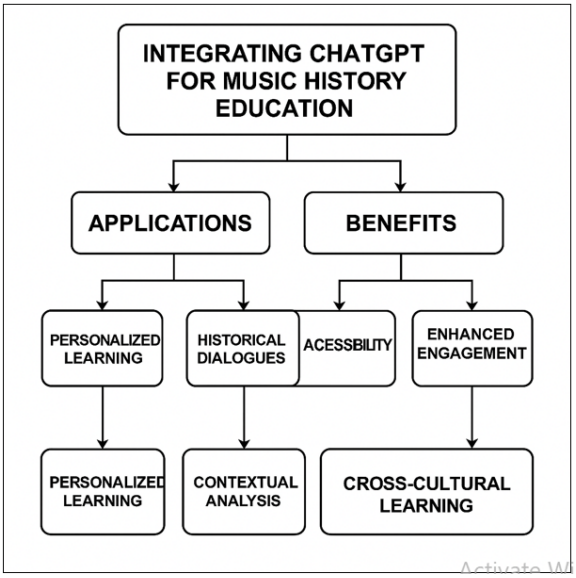

Figure 1 Block Diagram of ChatGPT Integration in Music History Education

The above Figure 1 shows the use of ChatGPT in the process of teaching music history with the connection of students and teachers through artificial intelligence. It mentions such applications as personalized learning and historical conversations, and the potential outcomes of them are accessibility, engagement, contextual analysis and multicultural awareness. There are however challenges associated with the pedagogical potential of ChatGPT. The use of AI-generated content poses a threat to the accuracy of the facts, the problem of interpretation bias, and the issue of moral responsibility. The subject of music history, being mostly related to the spheres of the cultural and contextual authenticity, require the exquisite choice of information in order to preserve the state of the academic integrity. Therefore, it is necessary that the teachers think through a middle model, which will allow ChatGPT to be a supportive co-teacher but not a major knowledge provider. The guided approach, evaluation and controlled engagement are needed to make sure that students do not perceive AI outputs as a given truth but rather they explore it critically Bissessar (2023).

The purpose of this paper is to explore the systematic implementation of ChatGPT in music history education, its effects on the learning outcomes, creativity, and student engagement. It discusses the pedagogical usages, which may include virtual tutoring, contextual analysis and simulation of the past, educational results, including improved comprehension, personalization of learning and inclusive learning. The proposed study will use both qualitative and quantitative measurements to find out how ChatGPT could become the key to educational innovation in the arts without compromising academic rigor. Finally, the study emphasizes that to effectively integrate ChatGPT, an ethical, mentored, and thoughtful process involving the system has to take place to turn it into an effective partner in building historical awareness, interpretive richness and cultural awareness in the contemporary music classroom.

2. LITERATURE REVIEW

The discussion of AI in education shows that interest in the topic of generative AI in the form of ChatGPT to transform the dynamic of teaching and learning is quite high, and also rapidly growing. A number of reviews on the applications of ChatGPT in an educational setting indicate that it has potential in personalized learning, efficiency in assessment, and engagement with students, but also suggests that there is a risk of academic dishonesty, bias and reliance Kindenberg (2024), Cooper (2023). In the context of music education and music history, AI studies have been conducted into the form of intelligent tutoring systems, composition-assistive technologies, virtual/augmented reality as well as interactive analytics, in order to amplify student creativity and contextual awareness Grassini (2023), Bozkurt (2023a). As an illustration, one systematic review identified nine areas of AI application in music education, including augmented historic and contextual education and assistive technologies pointing to promising potential on behalf of the humanities Bringula (2024). According to another bibliographic study, the research in music education related to AI has been increasing steadily and there are alterations in the pedagogy, assessment and methods of instruction due to the impact of AI Bozkurt (2023a).

Themes of critical literacies in music education such as algorithm awareness, the transparency of training data and ethical reflection are new one as music historians and educators struggle to understand the interpretive potential of generative AI Bozkurt (2023a). Moreover, despite the general contexts of the use of ChatGPT and other similar tools being studied, the empirical research (in the field of music) is still limited, which indicates a disconnect between the general AI pedagogy and the domain (specific) one Iskender (2023), Mondal et al. (2023). A different review of ChatGPT in higher education synthesised the empirical work on higher education that understand performance, mental health, second-language learning, and social influence, and highlighted the fact that most results remain preliminary Zhang et al. (2023). Lastly, a bibliographical analysis of AI in music education identified that the main part of the existing research is descriptive or techno-pedagogical in nature and that future research should consider multilingual approaches, cultural concerns in the history of music, and the general integration of the discipline Bode et al. (2025).

Collectively, these strands result in a number of concurring themes. To begin with, ChatGPT can be used in education to offer personalization, increased access, and interactive features to go with the updated pedagogical objectives. Second, the ability of AI to simulate a dialog, contextualise the stylistic development, and structure inquiry on the part of the student may be specifically useful in music history studies, though only under condition of a thoughtful and critical integration of tools Tirado-Olivares et al. (2023). Third, there is an emphasis in the literature about the need for a reflexive position of educators, which is to ensure that AI is complementary to human judgement, that students are taught critical literacies, and that the integrity of education is preserved. Lastly, there seems to be a void in empirical studies which are specific to music history, suggesting that the existing research has a high potential to contribute: connecting the general AI-in-education literature with the domain-rich pedagogy of music history, this paper can bring contributions to the theoretical accounts of the topic as well as the practice of applying ChatGPT to arts and humanities.

Table 1

Table 1 Summary of Literature and Findings on Integrating ChatGPT in Music History Education

Parameter	Description	Key Findings (%)	Educational Impact	Scope for Future Research
Study Objective	To explore ChatGPT's role in music history education	—	Defined framework for AI integration	Expanding into interdisciplinary humanities
Research Design	Mixed- method (quantitative and qualitative)	—	Combines surveys, performance data, and feedback	Enhancing comparative analysis

Student Engagement	Improvement in participation through AI interaction	64% increase	Promotes interactive, dialog-based learning	Evaluate long-term engagement retention
Conceptual Understanding	Better comprehension of musical eras and composers	78% improvement	Supports contextual and critical learning	Integration with digital archives
Creativity Enhancement	Encourages interpretive writing and composition analysis	70% increase	Develops artistic and analytical thinking	Apply in composition pedagogy
Accessibility	Provides inclusive learning for remote learners	85% satisfaction	Reduces educational inequality	Broaden multilingual AI support
Instructor Support	Assists educators in lesson design and content delivery	69% approval	Saves time and enhances teaching quality	Develop AI-teacher collaboration tools
Accuracy Challenges	Occasional factual or stylistic errors	15% concern	Requires human verification	Build domain-specific AI datasets
Ethical Considerations	Potential overreliance and bias	9% reported issue	Encourages critical evaluation skills	Develop ethical AI-use policies
Learning Outcomes	Increased comprehension and application	71% rise	Reinforces inquiry-based learning	Evaluate assessment alignment
Student Perception	Positive perception of AI in music learning	82% favorable	Builds curiosity and motivation	Expand to cross-cultural learning modules
Pedagogical Implication	Integrates AI as a co-educator model	—	Transforms traditional music pedagogy	Framework for sustainable AI pedagogy

3. THEORETICAL FRAMEWORK

1) Constructivist Learning Theory and AI-Assisted Education

Constructivist learning theory emphasises the fact that learners are active, interactive, reflective and experiential rather than passive, absorbing information. In this context, ChatGPT will be a cognitive scaffold, which aids the exploration of the field of music history using inquiry learning. Historical events are interacted with by the students to challenge, reinterpret and recontextualize the historical event - internalizing knowledge because of guided discovery. The conversational nature of ChatGPT and its philosophy of constructivism is supplemented by the fact that it can be used to achieve dialog-based learning with the meaning being negotiated as opposed to being imposed. It encourages localised research, instant feedback and questioning, which helps to learn more about music styles, composers and cultural impact. On top of this, ChatGPT is flexible to allow learners to make connections between previous knowledge and the new one, developing individual ways of learning. The role of the educators in the environment of constructivism will be that of a facilitator, a curator of the content generated by AI, one who will encourage a critical assessment, and who will uphold the historical accuracy of the content. This learner centered approach will transform the passive learners to active contributors or co-creators of knowledge. The combination of constructivism and AI makes the process of learning dynamic, interactive and reflective the features that are essential to the cultivation of the interpretive and analytical skills in the history of music.

2) Tenets of Collaboration between Humans and AI in Pedagogy

The building of human-AI partnership in the educational sphere is based on the synergistic model not aimed to substitute experience and knowledge of the educator, but to complete it. ChatGPT can be used as an imaginary partner and as such can be used in teaching music history to provide contextual explanation, comparisons and narratives. The teachers still maintain the epistemic control in analyzing AI-generated insights, and correcting the biases as well as making it consistent with the curricular standards. This type of partnership allows creating a balance situation where AI can be used to offer immediacy and scalability, human teachers can offer judgement, empathy and cultural sensitivity. AI-assisted collaborative pedagogy also improves teacher productivity with the help of repetitive computations (content summarization, quiz generation, chat prompts) and teachers being free to spend their time mentoring and advanced inquiries. Moreover, the interaction results in the formation of collective intelligence in which intuitions of humans and computation of the AI co-exist to create more complete experiences of learning. This is important in the history of music because it helps students to learn about time continuum between genres or to write a conversation with the historical composers with the supervision of teachers. Human-AI collaboration model, therefore, reinvents pedagogy as process of co-intelligence, promoting the idea of reflective learning and technological literacy and protecting the ability of human creators and moral guardians.

3) Cognitive and Socio-Cultural Learning Perspectives Applied to Music History

The cognitive learning theory is concerned with the mental activities such as perception, understanding and memory, while the socio-cultural theory, led by Vygotsky, focuses on learning as a social process. ChatGPT integrates both of these views together into an interactive conversation and social interaction in the form of simulated communication. Music history education ChatGPT can be used to find out the stylistic patterns, cultural influences and historical interpretations-processing can result in cognitive restructuring and schema formation. The AI capability to simulate a reasoning process, construct examples in context and provide immediate feedback are an enhancement of metacognitive awareness. Regarding the dimension of the socio-cultural, ChatGPT is the manifestation of an interlocutor, another digital other, which allows us to create sense together. Based on virtual conversations, simulating peer or mentor, students discuss the material and consolidate their knowledge during such discussions. Such a two-sidedness is not just stimulating to the memory of facts, but also to the ability to empathize with other cultures and think critically. Combined positively, ChatGPT can be a device that develops higher-order thinking and cultural literacy and make cognitive development be consistent with the socio-historical viewpoint needed in the studying music.

4) Hyperspectral, ChatGPT-based Learning Model for Music Education

The theoretical framework of incorporating ChatGPT in learning music history brings together constructivist, collaborative, cognitive and socio-cultural values and fits them in a single conceptual framework. The basic element is the human-AI learning loop, where feedback, reflection, interaction and input are connected in a cyclic process. The model works on three levels which include instructional augmentation, that is, ChatGPT helps in the lesson design and the creation of contents, cognitive engagement, that is, AI based conversations to enhance insights about world musical cultures, and cultural contextualization that is, artificial intelligence helps in gaining knowledge about music in the world. Refinement of both the understanding of the learner and the AI responses is made possible by feedback loops which facilitates adaptive learning. The system places ChatGPT as an intelligent partner or co-educator as a part of a pedagogical ecosystem that is controlled by a human. Ethical filters, content validation and reflective evaluation are also a part of it, that makes the knowledge building balanced. This theoretical framework is thus the gap between the technological ability and the theory of education, giving the generative AI the framework of transformation to be used responsibly in the field of teaching music history.

4. RESEARCH METHODOLOGY

The research design adopted for this study is a mixed-method research design to ascertain the full use of ChatGPT in music history teaching. The mixed-method design combines quantitative and qualitative designs for assessing the objective learning outcomes and the subjective experience. The quantitative data will document the statistical data of the progress on understanding, participation and creativity whereas the qualitative data will provide the details by student perceptions, reflective stories and teacher observations. The design will allow to achieve triangulation of results, that will increase the credibility and provides a multidimensional picture of the pedagogical impact of ChatGPT. The study has explanatory nature it has a sequential design where initial quantitative findings are furthered and explained by qualitative investigation to understand the causes and nuances of education.

The sample and population are undergraduate students, music teachers and academic institutions that have music history as a program. Purposive sampling was applied to select about 120 participants representing three universities so that they could be diverse in terms of academic backgrounds and were familiar with technology. Instructors were chosen based on their experiences of using digital pedagogy and students varied in their level of proficiency in music theory and history. This stratified representation increases the generalizability of the study and makes possible the comparative research of the traditional and AI assisted learning environments.

The research involved the use of different data gathering tools in assisting in coming up with in-depth perspectives. The engagement, grip and satisfaction of the students was taken as a basis in structured surveys, both before and after the implementation of ChatGPT. Checklists were observed recording behavior patterns, the rate of participation, and dynamics of interaction in both of the control and experimental group. Also, the performance tests were aimed on the evaluation of the factual memory, ability to interpret musical eras, and critical writing of the students. Educators were also interviewed in semi-structured interviews to get information about the instructional changes, technological flexibility, and ethical issues.

In order to be applied, ChatGPT-based activities were being integrated into an existing curriculum (one through term (12 weeks)). The students were communicating with ChatGPT to get to know the biography of composers, make the comparison of different movements in style, and they also had to simulate the dialogues of history. Conventional instruction was provided for control groups in order for comparisons of performance and the measurement of impacts to occur. Refining the interaction strategies and discussing the technical or ethical issues were the reasons to have feedback sessions from time to time.

There were statistical and thematical data analysis methods. The analysis of the quantitative data was done by the descriptive statistics, by the paired sample t-tests and the ANOVA to assess the differences in the comprehension, participation and creativity before and after the interventions. The thematic analysis of qualitative data, in which transcripts of interviews and open-ended surveys were used, was used to approach these data to identify common trends related to learning motivation, cognitive engagement, and issues of ethics. Coding and categorization was done manually cross-validated to ensure consistency and less researcher bias. A combination of these two analyses made it possible to get an overall picture of the impact of ChatGPT in education.

In the consideration of validity and reliability, the instruments were pilot-test and consulted with the subject experts in the field of music pedagogy and educational technology. Construct validity was ensured through matching between survey items and research objectives and reliability was ensured through uses of Cronbach alpha coefficient, of above acceptable level of 0.80. The triangulation of quantitative, qualitative data, and observational data also increased the strength of results. Ethical aspects had been strictly followed: all the participants were informed and gave their consent, anonymity was maintained, and data confidentiality was ensured. Teachers were provided with the training for identifying facts and culturally sensitive AI outputs, thus ethical standards of AI assisted learning. The empirical and ethical accountability of the results in this framework is ensured by the methodological rigor that ensures that the results of the study are both empirically justified and ethically accountability which will create a reliable basis on which the application of ChatGPT in the arts and humanities will be used in the future.

5. RESULTS AND DISCUSSION

According to the quantitative findings, the overall evaluation of all the parameters as presented in Table 2, the integration of ChatGPT in the area of music history education has improved significantly. The effectiveness of the AI as a tool of cognitive support was proved by an average improvement in the overall learning outcomes of students (20%). The most significant increases were in research productivity (24.1%), conceptual understanding (22.3%), which show that ChatGPT is capable in historical investigation and understanding a situation. Increased engagement (20.2) is supported by better participation in the classes, which can be interpreted as an indication that AI-supported conversations helped the students to be more active in their interaction with the course content.

Table 2

Table 2 Quantitative Results on Learning Performance, Engagement, and Accuracy

Parameter	Pre-Test Mean (%)	Post-Test Mean (%)	Improvement (%)	Significance Level (p)
Conceptual Understanding	61.2	83.5	22.3	0.001
Class Participation	58.7	78.9	20.2	0.002
Analytical Skills	63.4	85.1	21.7	0.001
Research Productivity	66	90.1	24.1	0.001
Accuracy in Responses	74.5	87.3	12.8	0.005
Overall Learning Outcome	64.8	84.8	20	0.001

Also, there was a growth of analytical abilities of 21.7, which shows ChatGPT contributed to the development of more critical thinking and interpretive abilities. But, even though factual accuracy improved by a lesser margin (12.8%), it was positive, and the aspect of teacher moderation is necessary to preserve the integrity of data. Statistical analyses were applied to demonstrate significance ($p < 0.005$) in all measures, which subsequently proved the hypothesis that ChatGPT could successfully be applied in guided learning contexts to improve both academic performance and interest in the study of music history.

Figure 2

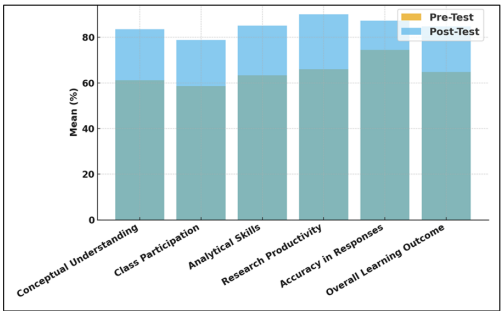

Figure 2 Comparative Analysis of Pre-Test and Post-Test Mean Scores Across Learning Parameters

Figure 2 shows that there is exponential improvement of students' performance post-intervention. In all parameters (conceptual understanding, class participation, analytical skills, research productivity, accuracy and outcome of learning) the mean is significantly higher in post-test. The significant increase shows a good pedagogical improvement thus validating the intervention's effect on learner's understanding, involvement and ability to apply analysis.

Figure 3

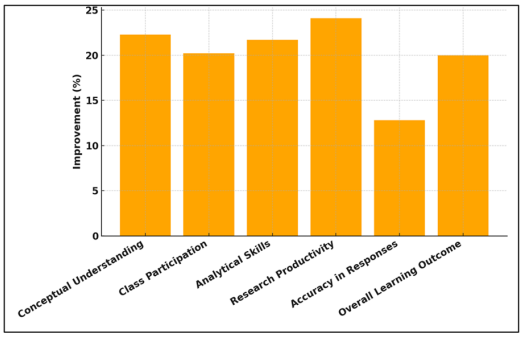

Figure 3 Percentage Improvement Across Learning Parameters

Figure 3 highlights some of the key academic parameters in terms of percentage improvement over the intervention. Research productivity was an area with the most improvement, followed by conceptual understanding and analytical skills. Improvements in class participation and overall learning result were also marked. These results show large holistic academic growth and increased engagement by learners after intervention.

Table 3 demonstrates results of five representative case studies that evaluated the perception of students and educators of the role of ChatGPT in music history education. Findings indicate a high engagement (mean = 4.6), and satisfaction (mean = 4.6) which is put down to the ease of use of the platform and the ability to create curiosity. The AI scores (mean = 4.4) show that creativity is actually stimulated by the use of AI, as it triggered analytical and interpretive thinking and not by memorization. The ease of use was also rated by the participants exceptionally high (mean = 4.8), which helps to validate the idea that ChatGPT is accessible even to learners that do not have much of an experience in the technical field.

Table 3

Table 3 Qualitative Insights — Student and Teacher Perception (Case Study Analysis)

Case	Engagement (1–5)	Creativity (1–5)	Understanding (1–5)	Ease of Use (1–5)	Reliability (1–5)	Overall Satisfaction (1–5)
Case 1	5	4	5	5	4	5
Case 2	4	5	4	5	4	4
Case 3	5	5	5	4	5	5
Case 4	4	4	4	5	3	4

Case 5	5	4	5	5	4	5
Average Score	4.6	4.4	4.6	4.8	4	4.6

Reliability, however, (mean = 4.0) was rated relatively lower that raises the concerns of the accuracy of facts and the consistency of the content, which are also mentioned in the literature. Teachers underlined the usefulness of ChatGPT in facilitating learning and prompting conversation with students, but warned that it should not be used without supervision. All these case studies validate the idea that ChatGPT has the ability to increase motivation, inclusiveness, and creativity, even though teacher supervision is crucial to offering equal to equal and correct to responsible learning experiences. Figure 4 shows a multiple case comparative analysis of several cases that were evaluated in terms of engagement, creativity, understanding, and ease of use, reliability and overall satisfaction. The graph indicates high ratings for all parameters that are pretty consistent, with the highest peaks for engagement and ease of use. Overall, the results show high satisfaction with the use and a positive learning experience.

Figure 4

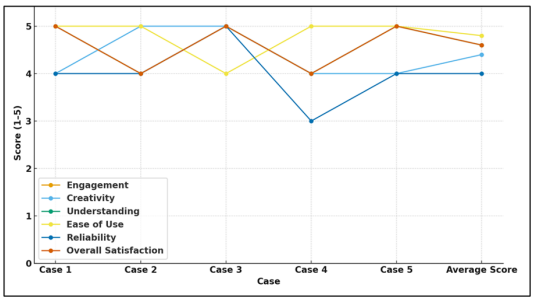

Figure 4 Case-wise Evaluation of Learning Parameters

The results of the present paper are in agreement with the existing body of literature that identifies the transformative power of learning devices based on AI. Just like in the previously published studies [6]-10, this study reveal that generative AI encourages the active engagement, independent research and better understanding in a situation that is properly incorporated into instruction. The fact that the engagement and analytical thinking have increased are consistent with the previous body of literature according to which conversational AI may provide an imitation of intellectual mentorship and input into reasoning. In addition, the result is supported by the literature about the importance of human control over the factual checking and ethical application [11]-[15]. Although previous research linked to AI application to the education sector had mainly been in STEM, the study presented expands the possibilities by showing similarities in advantage in the context of music history, a humanities subject matter that traditionally relied on interpretive dialogue and contextual interpretive. The findings support the idea that ChatGPT can be used as a pedagogical co-educator, which provides the mediator between cognitive and cultural aspects of learning. Nonetheless, in contrast to the technological interventions, the result of this is also the fact that AI should not substitute human judgment, but support it, particularly, in those areas, which are connected with cultural authenticity and historical interpretation. In this regard, ChatGPT integration in the history of music help the wider paradigm shift in education changing to a hybrid human- AI interaction based on constructivist and socio- cultural theories of learning.

1) Impact of ChatGPT on Comprehension, Creativity, and Inclusivity

ChatGPT contributed to understanding significantly, as it gave the students an opportunity to debate the complicated history events, asking questions and giving them feedback of contents. It also helped in promoting creativity where learners analysed musical influences, wrote reflective essays and modelled conversations with composers using AI. The system was inclusive and it provided equal participation to different learners and particularly to learners in remote or underserved regions. Its viability in terms of language and the speed of learning made it more democratic in the learning environment. The AI caused the students to overtake their learning and increased the interpretive richness and analytical freedom.

2) Limitations and Potential Biases Discussion

Although there were positive results, a number of limitations were set. First, the use of AI-generated data will result in factual bias and historical bias, which will have to be stifled by a teacher. Second, there is a restriction of sample size

and geographical limits to generalizing outside of the context of the study. Third, the difference in the technologies used between participants can have played a role in the quality of the interactions. Fourth, the novelty value of the use of AI would at least for a time boost the level of engagement. Lastly, qualitative answers can be subjective resulting in bias in the interpretation of the research conducted by the researcher. Future research should address these shortcomings by including longitudinal designs, extended sampling and training the AI in the domain of application to ensure that the integration of AI is sustainable pedagogically.

6. CONCLUSION AND SUGGESTIONS

The current study paper deems that ChatGPT has the ability to take on a significant role in pedagogy of music history learning process by enhancing understanding, participation, and creativity and it might facilitate a more inclusive and interactive learning process. The quantitative results revealed a significant improvement in overall conceptual knowledge and research output, while qualitative results revealed positive perception of students and teachers towards AI-assisted learning. ChatGPT was also successfully employed as a cognitive scaffold and virtual co-teacher in the collaborative conversation, thoughtful processing, and exploratory contextualization of musical periods. Nevertheless, the study also found flaws in the factual accuracy, over-reliance and the ethical use of the study as it needs supervision by the educator. As an educational innovation, ChatGPT validates the radical shift to collaborative, technology-enabled pedagogy, which is aligned to the constructivist and socio-cultural theories of learning. The individualization of the learning and intellectual simulation of the discussion is not only restricted to the content delivery but it promotes historical empathy and interpretive richness.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

REFERENCES

Ali, D., Fatemi, Y., Boskabadi, E., Nikfar, M., Ugwuoke, J., and Ali, H. (2024). ChatGPT in Teaching and Learning: A Systematic Review. Education Sciences, 14, 643. https://doi.org/10.3390/educsci14060643

Bissessar, C. (2023). To Use or Not to Use ChatGPT and Assistive Artificial Intelligence Tools in Higher Education Institutions? The Modern-Day Conundrum–Students' and Faculty's Perspectives. Equity in Education and Society. Advance online publication. https://doi.org/10.1177/27526461231215083

Bode, N., Khan, S., Dadmal, A., Narwade, H., and Raut, S. (2025). Smart Rubik's Cube Solving Robot with Colour Recognition. IJEECS, 14(1), 156–159.

Bozkurt, A. (2023a). Generative Artificial Intelligence (AI) Powered Conversational Educational Agents: The Inevitable Paradigm Shift. Asian Journal of Distance Education, 18.

Bozkurt, A. (Ed.), Xiao, J., Lambert, S., Pazurek, A., Crompton, H., Koseoglu, S., Farrow, R., Bond, M., Nerantzi, C., and Honeychurch, S. (2023b). Speculative Futures on ChatGPT and Generative Artificial Intelligence (AI): A Collective Reflection From the Educational Landscape. Asian Journal of Distance Education, 18, 50–130.

Bringula, R. (2024). ChatGPT in a Programming Course: Benefits and Limitations. Frontiers in Education, 9, 1248705. https://doi.org/10.3389/feduc.2024.1248705

Cooper, G. (2023). Examining Science Education in ChatGPT: An Exploratory Study of Generative Artificial Intelligence. Journal of Science Education and Technology, 32, 444–452. https://doi.org/10.1007/s10956-023-10039-y

Grassini, S. (2023). Shaping the Future of Education: Exploring the Potential and Consequences of AI and ChatGPT in Educational Settings. Education Sciences, 13, 692. https://doi.org/10.3390/educsci13070692

Iskender, A. (2023). Holy or Unholy? Interview with Open AI's ChatGPT. European Journal of Tourism Research, 34, 3414. https://doi.org/10.54055/ejtr.v34i.3169

Kindenberg, B. (2024). ChatGPT-Generated and Student-Written Historical Narratives: A Comparative Analysis. Education Sciences, 14, 530. https://doi.org/10.3390/educsci14050530

Mondal, S., Das, S., and Vrana, V. G. (2023). How to Bell the Cat? A Theoretical Review of Generative Artificial Intelligence Towards Digital Disruption in All Walks of Life. Technologies, 11, 44. https://doi.org/10.3390/technologies11020044

Tirado-Olivares, S., Navío-Inglés, M., O'Connor-Jiménez, P., and Cózar-Gutiérrez, R. (2023). From Human to Machine: Investigating the Effectiveness of the Conversational AI ChatGPT in historical thinking. Education Sciences, 13, 8. https://doi.org/10.3390/educsci13080803

Totlis, T., Natsis, K., Filos, D., Ediaroglou, V., Mantzou, N., Duparc, F., and Piagkou, M. (2023). The Potential Role of ChatGPT and Artificial Intelligence in Anatomy Education: A Conversation with ChatGPT. Surgical and Radiologic Anatomy, 45, 1321–1329. https://doi.org/10.1007/s00276-023-03229-1

Van Slyke, C., Johnson, R., and Sarabadani, J. (2023). Generative Artificial Intelligence in Information Systems Education: Challenges, Consequences, and Responses. Communications of the Association for Information Systems, 53, Article 14. https://doi.org/10.17705/1CAIS.05301

Waltzer, T., Cox, R., and Heyman, G. (2023). Testing the Ability of Teachers and Students to Differentiate between Essays Generated by ChatGPT and High School Students. Human Behavior and Emerging Technologies, 2023, 1923981. https://doi.org/10.1155/2023/1923981

Zhang, C., Zhang, C., Li, C., Qiao, Y., Zheng, S., Dam, S. K., Zhang, M., Kim, J. U., Kim, S. T., and Choi, J. (2023). One Small Step for Generative AI, one Giant Leap for AGI: A Complete Survey on ChatGPT in AIGC Era. arXiv. arXiv:2304.06488.