

# Integration of Museum Educational Functions for Tertiary Students in China

Junjie Luo<sup>1\*</sup>, Charanjit Kaur Swaran Singh<sup>2</sup>

<sup>1</sup>School of Cultural Tourism and Regional Development, Guiyang Institute of Humanities and Technology, Guiyang 550025, Guizhou, China

<sup>2</sup>Faculty of Languages and Communication, Universiti Pendidikan Sultan Idris, 35900 Tanjong Malim, Perak, Malaysia

\*Corresponding author: Junjie Luo, 1126054803@qq.com

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**Abstract:** The educational function of museums has attracted the attention of the Chinese government and society. However, teachers still face challenges and obstacles in effectively instilling the educational functions of museums in students in higher education. This study aims to examine the strategies and experiences of teachers utilizing museums for educational purposes in China. It employed a qualitative research methodology, utilizing a case study approach. Samples comprised six teachers selected using purposive sampling to participate in a semi-structured interview. These teachers have 15 years of teaching experience. An interview protocol comprised of seven interview questions was used to collect data on integrating museum educational functions for tertiary students in China. By investigating these aspects, the study aims to explore the current practices of teachers inculcating the educational functions of museums to tertiary students in China. The data from the semi-structured interviews were analyzed using thematic analysis. Findings revealed that integrating museum visits into teaching and collaborating between colleges or universities and museums have many benefits. Museum education makes learning more fun and understandable for students, helping them enjoy learning and find it more meaningful. The study emphasizes the need of incorporating museum education into teaching methods, as well as developing collaboration between schools and museums, in order to improve student learning experiences and create lifetime love for arts, culture, and history. Future research can explore innovative teaching methods that leverage museum platforms to convey abstract concepts, foster critical thinking, and promote interdisciplinary learning in current practices of teachers inculcating educational functions of museums to tertiary students in China.

**Keywords:** Teachers' strategies; Educational functions; Museum; Tertiary students

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## 1. Study background

The 21st Congress of the International Council of Museums (ICOM), held in Vienna, Austria, in 2007, revised the definition of a museum and, for the first time, defined “education” as the first function of a museum. The term “education” was first used to describe the main role of a museum. International museum development

trends indicate that contemporary museums are moving away from being collection-oriented in the past to becoming education-oriented today, or from being “collection-centered” to being “public-centered.” Museums start to focus less on objects and more on people, so they are reaching out to a more diverse population <sup>[1]</sup>. A museum is a social and cultural education institution, and educating the general audience about science and culture is one of the main tasks of museums <sup>[2]</sup>. The integration of museum curriculum with school curriculum is an inevitable result of the development of museum education <sup>[3]</sup>. Since the establishment of the first modern museum in China, museums have become an important subject in the Chinese education system <sup>[4]</sup>. The development of museum education requires the exploration of a mature educational system that has both a theoretical basis and a great deal of practical experience <sup>[5]</sup>.

In 2011, China’s State Administration of Cultural Heritage and Education issued a notice on strengthening the construction and development of museums in colleges and universities, which pointed out that colleges and universities should be supported to establish museums. The museum business is an important institution to explore and practice new talent training models and realize the modernization of tertiary education. It is a suitable place to carry out inquiry learning, participatory teaching, and practical teaching, and fully realize the social education function, forming an effective mechanism to cultivate students’ awareness of cultural innovation. In 2020, the General Office of the State Council of China issued the *Opinions on Comprehensively Strengthening and Improving School Aesthetic Education in the New Era*, which pointed out that schools develop educational projects based on museums. In accordance with the educational philosophy of “emphasizing participation, emphasizing process, and emphasizing experience,” further highlight the characteristics of museum education, closely combine school curricula, and design and develop rich and colorful museum youth education courses. With the continuous rise of museums, colleges and universities continue to carry out attempts on how to combine museums with teaching in colleges and universities, and have gained certain understanding and experience <sup>[6]</sup>. Despite advancements in integrating museums into college and university teaching, there remains a notable gap in practical strategies for effectively utilizing museum platforms across diverse levels of education within the same discipline, while also addressing the need for inclusive approaches to convey spiritual connotations and foster a sense of innovation among students from varied backgrounds. Therefore, the study provides an answer to the research question, “What are the current practices of teachers inculcating educational functions of museums to tertiary students in China?”

## 2. Literature review

Museums are defined as non-profit, permanent institutions that are publicly accessible and dedicated to serving societal development through avenues of learning, education, and recreation. They are establishments or entities that amass, display, and study objects that represent the natural and cultural heritage of humanity. These institutions categorize items of scientific, historical, or artistic significance, aiming to provide knowledge, education, and appreciation to the public <sup>[7]</sup>.

The role of education in museums was first acknowledged by the International Council of Museums in 1951. In 2007, this council revised the definition of museums, emphasizing “education” alongside “appreciation” and “research,” thereby reflecting the increasing importance placed on educational roles within the museum industry. After extensive deliberations and practical applications over the years, a consensus has emerged within the industry: education is the primary objective, collections form the foundation, and exhibitions constitute the core. Museum Education represents an intuitive form of educational activity for audiences, primarily manifested

through physical displays and various auxiliary methods. Learning in museums occurs through the interaction between individuals and their environment, echoing Dewey's focus on the "interactive" nature of experience. The "what" of museum education is shaped by visitors' interests, prior experiences, and knowledge, while the "why" is influenced by their motivations and expectations, and the "how" by their learning styles and socio-cultural preferences<sup>[8,9]</sup>. The landscape of museum education has evolved significantly over time, driven by changing views on the role of museums and deepening insights into educational theory. This evolution, marked by a shift from traditional didactic approaches to more immersive, experience-based learning, reflects a broader trend towards a more dynamic, interactive form of education that engages visitors in a meaningful way. As we explore further, it becomes clear that these transformations in museum education are not only a response to societal changes but also a catalyst for redefining the educational potential of museums in the modern era.

### **3. History of museum education research**

Education was a prerogative of the nobility in medieval Europe and was not accessible to the general populace. Before the 17th century, museums were seldom exposed to the general public and were only used by the aristocracy and the affluent to preserve their personal collections. When the Ashmolean Museum of Art and Archaeology in England first welcomed visitors in the late 17th century, the museum's purpose was broadened to include collection display. The museum as a cultural phenomenon is a product of a certain stage of social development<sup>[10]</sup>. A museum is not only a place and space for storing and displaying objects, but also a network and structure about the relationship between people and objects and their meaning, a social institution that collects, conserves, and interprets objects and redefines the relationship between people and the world by displaying and organizing the interaction between objects and their audiences. Throughout the development of museum education, museums, on the whole, focused more on collections and research than on audiences and education until the 20th century; but in the 21st century, museums that once prioritized collections have put audiences and education at the center<sup>[11]</sup>.

In the research on the effects of museum learning, most scholars believe that the effects of museum learning are multifaceted. For example, museum learning should emphasize the development of literacy and competencies such as knowledge, skills, and emotions<sup>[12]</sup>. In terms of knowledge, museum learning can enhance visitors' mastery of knowledge<sup>[13]</sup>. In terms of skills, museum learning was effective in promoting learners' hands-on, hand-eye coordination, and practical skills. Integrating museum resources into the curriculum is an important strategy for teachers to enhance the function of museums in my country's higher education<sup>[12]</sup>. By integrating museum exhibits with lessons, designing interactive activities, collaborating with museum professionals, and leveraging technology, teachers can create more immersive and engaging learning experiences. This integration not only enriches students' knowledge and understanding but also promotes critical thinking skills and cultural appreciation. Museum education also promotes cultural appreciation and understanding. In China, with its rich history and diversity, museums serve as important platforms for students to learn and appreciate their own cultural heritage, as well as the cultural heritage of other regions and countries<sup>[14]</sup>. By experiencing different art forms, historical artifacts, and cultural practices, students gain a broader perspective and develop a sense of respect for diverse cultures<sup>[15]</sup>. In addition, museums play a vital role in cultural preservation and heritage conservation. They help to preserve and disseminate cultural traditions, practices, and values. University students can benefit from museums' efforts to preserve and display cultural heritage through a better understanding and appreciation of their own culture as well as other cultures.

## 4. Methods

The study employed a qualitative research methodology, utilizing a case study approach, focused on teachers' current strategies and practices of inculcating educational functions of museums to tertiary students in China. The relationship between teachers and tools is considered a social activity, where teachers construct and reconstruct multiple meanings as they interact and utilize extracurricular resources in planning and designing instruction<sup>[16,17]</sup>. The samples include six university teachers from two schools. They have 15 years of teaching experience. The selection of the research instrument comprised an interview protocol that included seven questions. The data collection procedures involved six university teachers participating in semi-structured interviews, each lasting approximately 30 minutes. Prior to the interviews, the researchers developed a set of open-ended questions designed to elicit detailed responses regarding the teachers' experiences, perspectives, and strategies in integrating museum educational functions for tertiary students in China. The interviews were conducted in a comfortable and private setting, ensuring that participants felt at ease to share their insights openly. Each interview was audio-recorded with the participants' consent, allowing for accurate transcription and analysis of the data. This comprehensive approach to data collection aimed to gather rich insights into the strategies employed by university teachers in leveraging museum educational functions for tertiary education in China.

## 5. Data analysis

The interview verbatim of the six participants was analyzed for their prominent themes based on the interview protocol. **Table 1** below shows the details.

**Table 1.** Interview results

Interview questions	Participants' responses
How often do you incorporate museum visits into your teaching?	P1 students visit museums at least twice per semester. P2 schedule around three sessions per semester. P3 one museum trip per semester. P4 three times each semester. P5 two museum visits throughout the semester. P6 two museum trips per semester.
What motivates you to integrate museum education into your teaching?	P1 museum resources possess strong local characteristics and highly concentrated historical and cultural assets. P2 need additional resources to assist them. Relying solely on the textbook during teaching often fails to ignite students' active engagement. P3 allows them to directly engage with authentic historical artifacts and cultural heritage. P4 gather experiences from these visits, including interactions with different museums and their exhibits. P5 museums are packed with historical stuff, giving students a real hands-on cultural experience. P6 hands-on experience.
How do you believe museum education contributes to the learning experiences?	P1 enable students to immerse themselves in experiential learning of historical and cultural heritage. P2 beneficial effects for the content and knowledge points. P3 not only acquire knowledge through observation and exploration but also cultivate skills in observation, analysis, and problem-solving. P4 share these experiences and insights with my students, helping them gain a deeper understanding of museums. P5 building up their skills and abilities through practical experience. P6 visiting museums helps them learn through experience by enhancing their abilities.

**Table 1 (Continued)**

<b>Interview questions</b>	<b>Participants' responses</b>
Can you describe how you plan and prepare your lessons to incorporate museum education?	<p>P1 anything from historical museums to art galleries, picking out exhibits, collections, and activities that align with the curriculum.</p> <p>P2 identifying the unique features of museum exhibits that students can personally visit, and correlating these resources with relevant course knowledge.</p> <p>P3 integrating theory with practice.</p> <p>P4 based my teaching on the content requirements outlined in the school curriculum.</p> <p>P5 check out our course goals and content, figure out what parts mesh well with museum resources, and pick out relevant exhibits or artifacts.</p> <p>P6 identify course aims then pick museum resources.</p>
What factors influence your choice for museum education?	<p>P1 course content, transportation conditions, and museum exhibition status.</p> <p>P2 safety.</p> <p>P3 cultural atmosphere, values, and level of technological development in society.</p> <p>P4 prioritize those that are easily accessible to.</p> <p>P5 age and level of our students.</p> <p>P6 safety.</p>
Could you share specific strategies you use to integrate museum education into your teaching methods?	<p>P1 encourage students to engage in free discussions and present their findings.</p> <p>P2 heuristic teaching, utilizing digital resources, project-based learning.</p> <p>P3 prioritize students' needs and interests, diverse teaching methods.</p> <p>P4 addresses the issue of getting people to come in, and secondly, it's about how to enhance the quality of the various educational projects once they're inside.</p> <p>P5 conducts five "E" teaching method: Engagement, Exploration, Explanation, Elaboration, and Evaluation.</p> <p>P6 prioritize students' interests.</p>
In your opinion, what impact does museum education have on the engagement of learning?	<p>P1 allows them to learn through on-site visits, bridging theory with real-world applications.</p> <p>P2 students' independent learning and reflection outside of class play a significant role in influencing the course.</p> <p>P3 impacts student engagement in learning by bridging the gap between textbook theory and real-world practice.</p> <p>P4 very comprehensive educational sections that actively attract students to learn.</p> <p>P5 students connect what they're learning to real life, building up their sense of identity and confidence in cultural history.</p> <p>P6 students learn to be independent.</p>

Based on the first interview question, on incorporating museum visits into one's teaching, P1 and P5 mentioned at least twice per semester, while P2, P4, and P6 mentioned three visits per semester. On the participant's motivation to integrate museum education into teaching, all the participants were of the opinion that by visiting the museum, students can learn from their experience, as the museum is filled with concentrated historical and cultural assets. Next, on how museum education contributes to the learning experiences, P1, P4, and P6 voiced out that museum education enables students to immerse themselves in experiential learning of historical and cultural heritage. P2 was of the opinion that museum education contributes to the learning experiences through the beneficial effects of the content and knowledge points. P3 said that not only do students acquire knowledge through observation and exploration, but they also cultivate skills in observation, analysis, and problem-solving. P4 shared that these experiences and insights help students gain a deeper understanding of museums. P5 and P6 were of the opinion that museum education contributes to the learning experiences by building up students' skills and abilities.

For interview question 4 about planning and preparing the lessons to incorporate museum education, P1 said that anything from historical museums to art galleries, picking out exhibits, collections, and activities that align with the curriculum. P2 mentioned identifying the unique features of museum exhibits that students can

personally visit. P3 integrated theory with practice, meaning not only imparting theoretical knowledge but also enabling students to truly understand and apply what they have learned through practical hands-on experiences. P4, P5, and P6 plan their lesson based on the curriculum. Moving on to question 5, the factors that influence the choice for museum education, P1 said course content, transportation conditions, and museum exhibition status were the influence. P2 and P6 were more for safety. P3 stressed that cultural atmosphere, values, and level of technological development in society were factors that influence museum education. P4 prioritized those that are easily accessible to the public. And by accessible, *“I mean it can be in two ways: physically reachable, like you can actually go there, and also accessible through the students,”* mentioned P4.

Some of the strategies to integrate museum education into the teaching methods are, according to P1, encouraging students to engage in free discussions and present their findings. P2 employed heuristic teaching, utilizing digital resources and project-based learning. P3 and P6 prioritized students’ needs and interests. P4’s strategy was to address the issue of getting students into museum education and enhance the quality of educational projects once they are interested. P5 would go for the five “E” teaching method: Engagement, Exploration, Explanation, Elaboration, and Evaluation. *“By using the five ‘E’ teaching method, we’re bringing museum education into the mix, making it this complete loop in the teaching process, while also bridging the gap between school and the museum during the museum visit, students dive into the Exploration phase, checking out exhibits, getting hands-on with interactive displays, really digging deep into the topics at hand. After the visit, back at school, we educators and students team up to go over what we learned at the museum, providing professional explanations and guidance, helping students grasp and digest what they’ve explored. After that, we guide students in making connections between what they learned at the museum and what they’ve been studying in class, organizing discussions, activities, or practical tasks to deepen their understanding and application of the knowledge. And finally, throughout the whole teaching process, we educators evaluate and reflect on how things went down, understanding the teaching effectiveness, and figuring out ways to improve for future teaching activities.”* P6’s strategy was to prioritize students’ interests.

The impact museum education has on the engagement of learning is, P1 said, that it allows them to learn through on-site visits, bridging theory with real-world applications. P2 stated that students tend to be independent and they can reflect outside of class. P3 said it impacts students’ engagement by bridging the gap between textbook theory and real-world practice. P4 was of the opinion that it is the very comprehensive educational sections that actively attract students to learn. P5 said students connect what they’re learning to real life, building up their sense of identity and confidence in cultural history. P6 mentioned that students learn to be independent. On the effectiveness of the strategies incorporating museum education, P1 was of the opinion that effectiveness can be noted because it involves hands-on learning, multisensory engagement, and guided inquiry. P2 mentioned that students can identify and attempt to solve problems in their subsequent learning endeavors. P3 stated that students got involved in problem-oriented, capability-oriented, and goal-oriented approaches, combined with group projects and discussions. P4 said that students got engaged in self-learning outside of the classroom, utilizing museum resources, and presented their findings. P5 stated with clear education goals, which line up with what the curriculum calls for. P6 voiced out that students were engaged in learning museum education as they were involved in project-based learning.

## **6. Discussion**

Interview results show that educators generally agree on integrating museum education into teaching. They

believe regular museum visits can help students access historical and cultural resources. Museum education supports immersive learning, allowing students to interact with real exhibits directly. It also helps students improve observation, analysis, and problem-solving skills while learning professional knowledge, greatly enriching their learning experience.

Educators usually design museum activities according to the curriculum and choose suitable exhibits to connect theory with practice. Their choices of museum education are influenced by safety, convenience, cultural relevance, and students' interests. They use heuristic teaching, digital tools, structured teaching methods, and other strategies to combine museum education with classroom teaching.

Museum education helps students build cultural identity and confidence. It links classroom learning with real life and history, helping students understand their own cultural background and enhance their sense of identity. Project-based and independent exploration also encourages students to take charge of their own learning, promoting their personal development and cultural literacy.

Many educational and museum scholars have studied the integration of museum education. Falk pointed out that museums, as informal learning places, support experiential and interactive learning. Hooper-Greenhill believed museums connect formal education with real life and help students understand authentic cultural relics<sup>[18,19]</sup>. Creswell stressed student-centered and inquiry-based learning in museums. All these studies support the interview findings: museum education improves learning effects, increases student participation, and connects formal teaching with real-world situations.

## **7. Implications**

This study shows that mixing museum visits with teaching is really helpful for teachers and people who work in museums. It helps students get more involved in learning, understand things better, and connect what they learn in class to the real world. Teachers can use the ideas from this study to create more exciting learning experiences for students. By taking students to museums, teachers can make learning more interesting and useful for different types of learners. This makes the classroom more welcoming and livelier for everyone. Furthermore, the study highlights that working together between schools and museums is really important for making museum education better. Museum workers can use the ideas from this study to make their educational programs and exhibits fit better with what teachers and students need and like. By giving teachers help and training, museums can be good partners in making education better and making learning more fun for students. Overall, the study says that museum education can really change how students learn and make them like art, culture, and history more for their whole lives.

## **8. Conclusion**

In conclusion, this study highlights the benefits of integrating museum visits into teaching practices and the importance of collaboration between schools and museums. It shows how museum education can make learning more interesting and relevant for students, helping them understand things better and enjoy learning. By working together, schools and museums can create better educational experiences for students and help them appreciate art, culture, and history more. For future research, it would be interesting to explore the long-term effects of museum education on students' learning and attitudes. This could involve tracking students over time to see how their experiences in museums impact their academic performance, career choices, and overall outlook on learning.

## Disclosure statement

The authors declare no conflict of interest.

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