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From Passive Viewers to Active Curators: Rethinking Museum Education through Youth Engagement

Ayako Umemura

Keywords:

Youth as active curators; Museum education; Youth engagement; Heritage education; Well-being



ABSTRACT:

In Japan, the *Museum Act* stipulates that museums have both educational and research roles; however, curators are primarily assigned research duties, resulting in an imbalance that has constrained the development of museum education (Kurita 2019). As a consequence, museum education in Japan has often emphasized explanation and knowledge transmission, positioning children and youth primarily as passive recipients rather than active participants. Amid shifts in educational philosophy and societal expectations—and reflecting broader global trends in experiential and inquiry-based learning—new models have emerged that encourage children and youth to participate more actively in museum activities, paralleling the aims of child-curator programs seen in various regions. This study examines two initiatives at Nagoya University Museum: MusaForum, a university student-led initiative, and the Kiso Horse Project, a museum-school collaborative program. Through an analysis of program design, participant roles, and learning processes, these cases demonstrate how program designs grounded in preparatory engagement, hands-on practice, and structured reflection enable young participants to act as active contributors rather than passive recipients. By positioning museums as dynamic platforms for youth-driven inquiry, this study proposes a multi-layered program-design model that integrates scientific inquiry, cultural understanding, and well-being, offering practical implications for participatory museum education and the evolving role of museums as collaborative learning ecosystems.

In Giappone, il *Museum Act* stabilisce che i musei abbiano sia un ruolo educativo sia un ruolo di ricerca; tuttavia, ai curatori vengono assegnati principalmente compiti di ricerca, determinando uno squilibrio che ha limitato lo sviluppo dell'educazione museale (Kurita 2019). Di conseguenza, l'educazione museale in Giappone ha spesso enfatizzato la spiegazione e la trasmissione di conoscenze, collocando bambini e giovani prevalentemente come destinatari passivi piuttosto che come partecipanti attivi. Nel contesto dei cambiamenti nella filosofia educativa e nelle aspettative sociali – e in linea con le più ampie tendenze globali verso un apprendimento esperienziale e basato sull'indagine – sono emersi nuovi modelli che incoraggiano bambini e giovani a partecipare più attivamente alle attività museali. Questo studio esamina due iniziative del Nagoya University Museum: MusaForum, un'iniziativa guidata da studenti universitari, e il Kiso Horse Project, un programma collaborativo tra museo e scuola. Attraverso un'analisi della progettazione dei programmi, dei ruoli dei partecipanti e dei processi di apprendimento, questi casi dimostrano come modelli progettuali fondati su una preparazione iniziale, attività pratiche e riflessione strutturata consentano ai giovani partecipanti di agire come contributori attivi piuttosto che come destinatari passivi. Questo studio propone un modello multilivello di progettazione dei programmi che integra ricerca scientifica, comprensione culturale e benessere, offrendo implicazioni pratiche per un'educazione museale partecipativa e per l'evoluzione del ruolo dei musei come ecosistemi collaborativi di apprendimento.

Opening Picture:

Fig. 1b: Examples of activities within MusaForum as a learning and facilitation platform.

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I. Introduction

The development of museum education in Japan has been closely tied to shifts in educational philosophy and societal expectations since the postwar period. A key turning point was the *Museum Act* of 1951, which defined museums as institutions that collect, preserve, and exhibit materials, conduct research, and utilize these activities for educational purposes.¹ This legal foundation positioned museums as educational institutions aligned with the national education system.

However, as Kurita observes, curators' research duties have historically centered on collections, limiting the development of educational practices that promote active forms of learning.² Similarly, Kurata notes that the term *kyoiku fukyu* (educational propagation)³ reflects the long-standing perception of education as a secondary and one-directional function, rather than as a participatory or creative process. Despite ongoing discussion of learner-centered approaches, this notion remains embedded in museum practice, partly due to limited institutional support for educational innovation. National surveys⁴ confirm that educational activities are often integrated within curatorial work, underscoring the structural challenges of promoting participatory learning. Building on the concept of citizen participation articulated in third-generation museums, more recent initiatives led by students or community members exemplify characteristics of fourth-generation museums, where learners and citizens actively shape educational and exhibition practices.⁵

By comparison, broader develop-

ments in educational theory had long highlighted experience and inquiry as essential to meaningful learning. Building on these foundational ideas, Dewey,⁶ Piaget,⁷ and Kolb⁸ articulated the roles of active engagement, reflection, and learner agency in fostering deep understanding. Problem-based learning⁹ and project-based learning¹⁰ as well as object-based learning¹¹ subsequently provided pedagogical frameworks closely aligned with museum education. Through workshops, participatory programs, and hands-on experiences, museums have increasingly offered opportunities for inquiry, reflection, and collaboration, promoting both personal and social development.¹² In recent years, international frameworks have further encouraged this shift toward participatory practice. The UNESCO Framework for Culture and Arts Education (2024), the OECD Learning Compass 2030/2040, and the ICOM (2022) museum definition all highlight museums as inclusive, learner-centered spaces that foster creativity, well-being, and sustainable development.¹³

In line with these global and theoretical developments, this study examines two ongoing initiatives in Japan that exemplify participatory and inclusive approaches to museum education. The first initiative, MusaForum, functions as a university student-led platform through which participating students cultivate skills in exhibition development, facilitation, and reflective dialogue. This platform also serves as the operational and educational infrastructure for the second initiative, the Kiso Horse Project, where these trained university students mentor high school participants

as they research and present local cultural heritage. Both initiatives extend the philosophy of child-curator programs, which position young people as active interpreters and creators within museum contexts,¹⁴ by demonstrating how participatory principles can be scaled across age groups and embedded within sustained museum–school–community collaboration.

Taken together, the two initiatives form a layered model of youth participation in which museums support the progressive development of learner agency. As discussed in this study, this progression ranges from university students serving as emerging facilitators to high school students as inquiry-driven participants.

II. Program Design and Implementation

This section outlines the design and implementation of two interconnected initiatives—MusaForum and the Kiso Horse Project—that together constitute a multi-layered model of youth participation in museum practice. Rather than functioning as isolated case studies, the two programs form a developmental continuum: MusaForum cultivates university students' competencies

in communication, facilitation, and project planning, while the Kiso Horse Project engages these trained students as mentors who support high school learners in inquiry-driven, exhibition-oriented activities.

II-1. MusaForum: A Learning Infrastructure for Emerging Youth Curators

Established in 2020, MusaForum is a student-led organization affiliated with the Nagoya University Museum.¹⁵ With more than 200 active members as of 2025, the organization functions as a sustained learning community through which university students develop competencies essential for museum practice, including scientific communication, dialogue facilitation, collaborative planning, and reflective engagement.

Unlike one-off museum programs, MusaForum provides an institutional infrastructure that allows students to engage continuously in exhibition preparation, public programming, and peer-learning activities (Figure 1a). These engagements enable students to transition from passive participants to emerging youth curators capable of designing learning experiences for diverse audiences.

Fig. 1a: Examples of activities within MusaForum as a learning and facilitation platform. Students engaged in collaborative planning and preparation for museum exhibition and dialogue-based activities.



1a

Previous research has analyzed visitor responses to MusaForum-led outreach events.¹⁶ While such findings demonstrate the effectiveness of student facilitation (Figure 1b), the current study positions MusaForum not as an audience-engagement case, but as a pedagogical platform that systematically cultivates university students' agency and curatorial literacy. Through repeated cycles of planning, practice, and reflection, students learn to articulate their interests, assume responsibility for educational design, and navigate collaborative decision-making.



II-2. Kiso Horse Project: Inquiry, Fieldwork, and Exhibition-Making with High School Learners

Launched in 2024 as a collaboration between the Nagoya University Museum and the Nagoya University Affiliated Upper and Lower Secondary Schools, the Kiso Horse Project has engaged high school students in a series of inquiry-driven activities. The Kiso Horse—one of Japan's eight native horse breeds—has been preserved through the lineage of the stallion *Dai-san Haruyama*, whose complete skeleton (Figure 2) housed at the Nagoya University Museum. Centered on it, the project aims to foster scientific curiosity, cultural awareness, and agency through hands-on fieldwork, museum-based research, and public exhibition development.¹⁷

The program follows a PDCA (Plan-Do-Check-Act)-inspired structure consisting of three overlapping phases (Figure 3):

(1) Planning and Preparation

High school students begin by observing the skeleton specimen, conducting literature research, and participating in workshops on science communication facilitated by museum staff and MusaForum students. Drawing on Keller's ARCS model,¹⁸ the program incorporates motivational elements that promote curiosity and personal relevance. Students identify inquiry questions, plan field activities, and design approaches for collecting and interpreting data. This phase emphasizes inquiry-orientation, critical thinking, and project planning.

Importantly, MusaForum serves as the human and pedagogical foundation for the Kiso Horse Project. The competencies developed through MusaForum's ongoing activities—particularly the ability to design inquiry-oriented learning environments and facilitate participant engagement—directly support university students' roles as mentors and co-learners in the subsequent project. In this sense, MusaForum represents the “developmental first layer” of a broader model of youth participation in museum practice.

Fig. 1b: Examples of activities within MusaForum as a learning and facilitation platform. Student facilitators and children engaging in dialogic, hands-on observation of a sperm whale skeletal specimen at Nagoya University Museum, collaboratively exploring and interpreting the specimen through tactile and inquiry-oriented interaction.

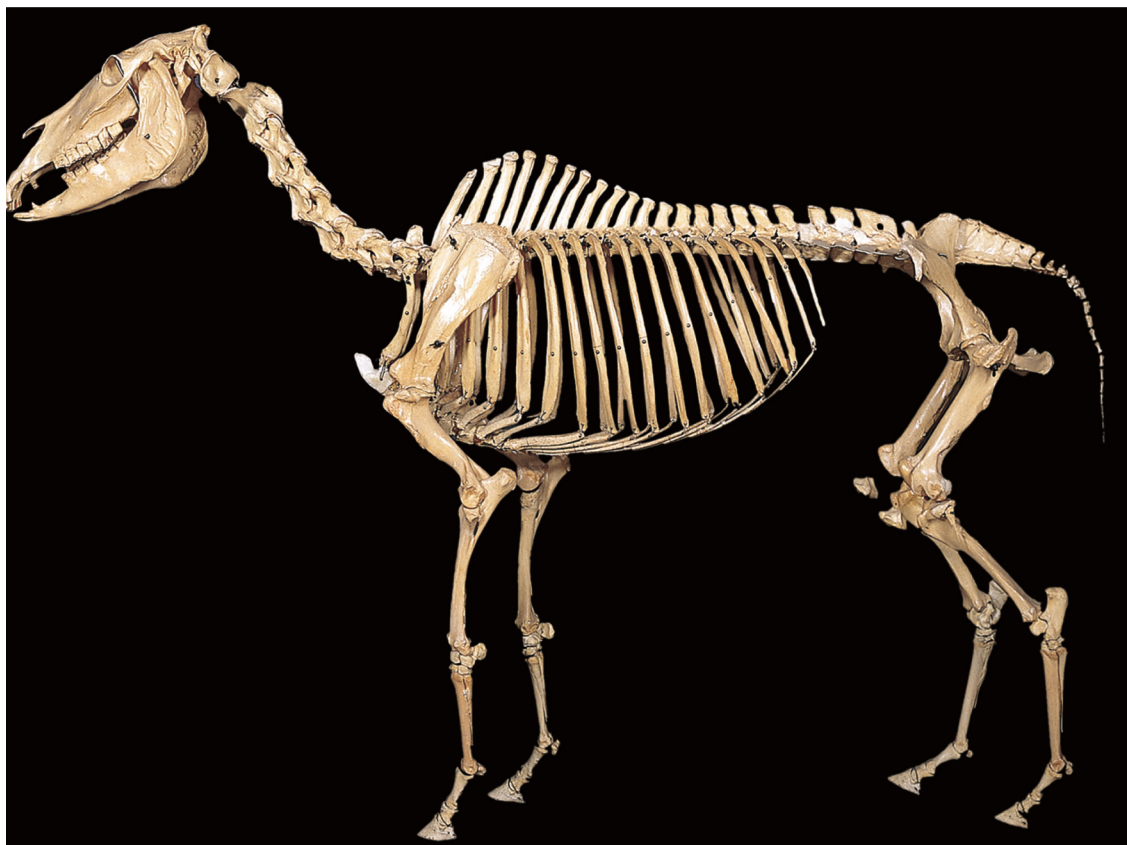


Fig. 2:
Skeletal specimen of the last purebred Kiso Horse, Daisan Haruyama, housed at Nagoya University Museum.

(2) Execution and Application

Students deepen their investigation through direct interactions with live Kiso Horses, including care activities, observation, and ecological fieldwork conducted at Kaida Plateau. Weekly “Kiso Horse Seminars,” supported by museum staff and MusaForum students, provide structured opportunities for synthesizing findings, refining research themes, and discussing emerging questions. These processes allow high school students to connect scientific and cultural knowledge while developing practical and inquiry-oriented skills.

(3) Exhibit Development and Reflection

Students collaboratively design public-facing exhibit materials—such as the “Kiso Horse Boxes”—that in-

tegrate scientific information with tactile, inclusive features. The process requires students to translate research into accessible formats, engaging in curator-like tasks such as audience analysis, interpretive design, and iterative refinement. Many students extend their participation by presenting posters at school meetings, submitting photographs to competitions, or applying their experiences to educational and career decision-making.

Above all these phases, high school students transition from learners to novice youth curators, supported by trained university students who serve as facilitators and co-researchers.



3

III. Youth as Active Curators: A Multi-Layered Model of Participation

Building on the program descriptions in Chapter II, this chapter analyzes how students at different developmental stages engage in curator-like practices and how these practices contribute to their learning. The focus is on the educational processes and outcomes that characterize the multi-layered “youth curator” model.

III-1. University Students as Emerging Curators (MusaForum)

Within MusaForum, university students take on responsibilities such as planning educational programs, selecting and interpreting specimens, and facilitating dialogue with visitors. These activities require students to synthesize disciplinary knowledge, articulate their interests, and make interpretive decisions, thereby moving from passive recipients of museum content to ac-

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tive youth curators.

This process aligns with Ogawa's¹⁹ view that museum learning emerges when learners integrate their personal experiences with museum resources. Through iterative cycles of preparation, public engagement, and reflection, students gradually transform tacit forms of understanding into shareable interpretations, echoing Nonaka's²⁰ concept of knowledge externalization. In this sense, MusaForum functions as a capacity-building environment that develops competencies in communication, collaboration, and interpretive design.

These competencies create the foundation for students' subsequent roles as mentors²¹ in the Kiso Horse Project. Their experience in facilitating inquiry-oriented learning environments enables them to guide high school participants while continuing to develop their own curatorial literacy.

III-2. High School Students as Novice Curators (Kiso Horse Project)

In the Kiso Horse Project, high school students engage in research, fieldwork, and exhibition-making that parallel professional museum practices. With guidance from museum staff and MusaForum students, they formulate questions, collect and interpret data, and produce exhibit materials that communicate their findings to public audiences.

Weekly "Kiso Horse Seminars" enabled students to engage in curator-like processes, including research, expert consultation, and collaboration. They refined observations, explored emerging questions, and deepened understanding,

responding to evolving interests such as targeted lectures by a horse husbandry specialist. Through this combination of structured guidance and autonomous inquiry, students developed skills in scientific investigation, critical thinking, and collaborative problem-solving, while sustaining engagement with both the cultural and scientific dimensions of the Kiso Horse.

These activities culminated in the creation of the "Kiso Horse Boxes," tactile exhibit materials designed to convey students' findings to museum audiences. The boxes incorporated diverse topics such as heart rate, hoof and dental structure and function, integrating direct observation with scientific inquiry. Figure 4 presents a representative example focusing on hoof structure and functional anatomy. Accessibility considerations allowed visually impaired visitors to engage with the materials, thus creating a multi-sensory and inclusive exhibit. By preparing these materials, students consolidated learning and assumed responsibilities similar to professional curators, translating research into public-facing outcomes. The process also enhanced students' awareness of social and cultural issues and fostered interest in regional culture.

IV. Discussion: Implications for Museum Education

The findings from Chapter III demonstrate that MusaForum and the Kiso Horse Project function not as independent programs but as interconnected components of a multi-layered youth–curator model. Each initiative engages learners in authentic museum practices—speci-

Fig. 3: Learning process of high school students in the Kiso Horse Project. (a) Question-and-answer session with a Kiso Horse caretaker, in which inquiry topics were generated through dialogue with project members. (b) Experimental investigations using live horses, such as heart rate measurement, conducted during fieldwork at Kiso-uma-no-sato, Kaida Plateau. (c) Student-produced exhibit artifacts "Kiso Horse Boxes," translating research findings into public-facing, tactile works through curator-like practices.

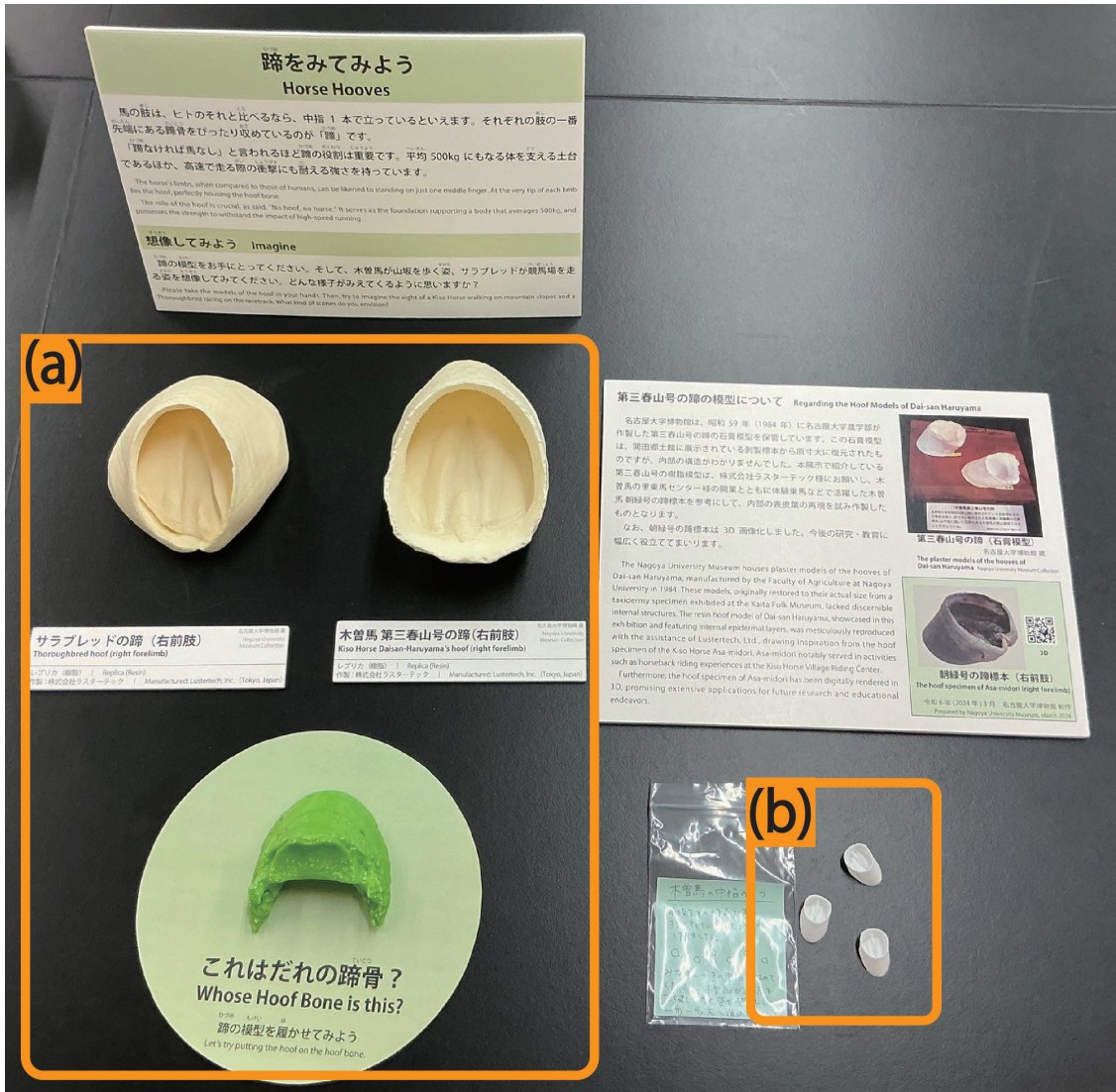


Fig. 4: Tactile tools for exploring horse structure. (a) Resin models of the hooves of a Kiso Horse and a Thoroughbred, including the third phalanx of the Kiso Horse. (b) A tool from the “Kiso Horse Box,” designed by a high school student to convey a horse’s standing posture. Reflecting the anatomical fact that horses stand on a single digit, the tool was designed to fit on the middle finger and produced using 3D scanning and 3D printing.

men-based interpretation, research, facilitation, and exhibition-making—while allocating responsibilities appropriate to their developmental stage. University students deepen curatorial literacy through iterative cycles of planning and public engagement, whereas high school students apply inquiry-based methods to investigate cultural heritage. Together, these processes reveal how participatory museum education can cultivate progressively greater learner agency, extending the philosophy of child-curator initiatives into adolescence and young adulthood.

Building on this perspective, this chapter discusses the broader implications of these initiatives for the future of museum education. The analysis highlights three inter-related domains: (1) the expansion of museums’ educational mandate through youth agency and human-resource development, (2) the role of museums as holistic learning environments that integrate well-being support, and (3) the contribution of youth participation to community and cultural sustainability.

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IV-1. Expanding Museums' Educational Mandate through Youth Agency

MusaForum illustrates how museums can cultivate emerging professionals by providing sustained opportunities for students to plan programs, interpret specimens, and facilitate public dialogue. The developmental progression observed in this study—where university students transition from learners to mentors and support high school participants—demonstrates a form of “scaffolded responsibility” that extends beyond traditional museum education programming.

This learning trajectory aligns with existing research characterizing museums as spaces for meaning-making, identity formation, and collaborative knowledge construction. By positioning university students as facilitators and co-learners, museums shift from delivering content to enabling learners to generate and communicate their own interpretations. The Kiso Horse Project, in turn, shows how such mentorship enhances high school students' inquiry skills, critical thinking, and interpretive capacity. Together, these programs exemplify how museums can integrate youth agency and human-resource development into their institutional mission.

IV-2. Museums as Holistic Learning Environments: The Role of Well-Being Support

The study also underscores the importance of attending to learner well-being. Building on the concept of Museum Bathing,²² the initiatives examined here demonstrate how museum settings can serve as third

places²³—supportive environments outside of home or school where students can reflect, seek guidance, and navigate challenges.

University staff and MusaForum mentors provided structured opportunities for dialogue and reflection, reducing stress and creating psychological safety during hands-on, public-facing, and field-based activities. The environment was intentionally shaped to help students process difficulties, maintain motivation, and sustain long-term participation. Museums are increasingly expected to function not only as educational or exhibition spaces, but also as third places where learners can reflect, share concerns, and engage informally in a supportive environment.²⁴

These findings suggest that well-being is not an adjunct to museum learning but a structural condition that enables learners to engage fully in participatory and inquiry-driven activities. Future museum education programs may benefit from explicitly incorporating reflective practices and mental health support as part of their pedagogical design.

IV-3. Youth Participation as a Driver of Community and Cultural Sustainability

Youth participation in these initiatives also contributed to broader social and cultural goals. Both university and high school students produced public-facing materials—traveling exhibitions, multi-sensory displays, posters, and photographic documentation—that facilitated intergenerational dialogue and expanded public understanding of science and heritage.

The Kiso Horse Project particularly demonstrates how engagement with local cultural resources can cultivate a sense of responsibility toward regional identity and cultural preservation. Students connected biological knowledge with historical and cultural narratives, resulting in exhibits that invited visitors to reconsider the significance of the Kiso Horse in contemporary society. This orientation resonates with Iwasaki's²⁵ work on the role of museums in fostering civic engagement and community-based cultural learning. Taken together, the findings indicate that youth–curator initiatives can strengthen the relationship between museums and their surrounding communities by creating platforms where young people contribute substantively to cultural transmission and public knowledge.

IV-4. Toward a Sustainable Model of Youth-Curator Education

Across these domains, the analysis suggests a sustainable model for museum education in which:

1. Young people are empowered as active curators, exercising decision-making, interpretation, and reflective skills appropriate to their developmental stage.
2. Museums function as holistic learning environments, integrating participatory, experiential, and inclusive practices with attention to learner well-being.
3. Student-centered projects contribute to scientific literacy, cultural understanding, professional skill development, and community engagement, thereby extending the educational and social impact of museum practice.

By combining participatory learning, reflective practice, and well-being support, museums can cultivate empowered, responsible, and skilled young learners. The multi-layered youth–curator model demonstrated in this study offers a pathway toward more inclusive, sustainable, and community-connected museum education.

V. Conclusion

This study highlights the educational and societal potential of engaging youth as active curators in museum settings through an analysis of MusaForum and the Kiso Horse Project. The findings demonstrate that when students are empowered to plan, implement, and reflect on exhibitions and research activities, they develop autonomy, collaborative skills, inquiry abilities, and cultural understanding.

By integrating participatory learning with deliberate attention to students' mental well-being, museums can function as holistic educational environments that nurture both intellectual growth and personal development. The initiatives further illustrate how university students can serve as effective mentors for younger learners, forming a developmental continuum of participation that extends the educational capacity of museums.

Moreover, the results indicate that student-centered, practice-based projects contribute meaningfully to community engagement, heritage preservation, and the broader societal role of museums. In this sense, the multi-layered youth curator model presented in this study offers a practical and transferable

framework for connecting museum education with regional culture and social sustainability.

In sum, museums that support youth as active curators can serve as dynamic spaces for learning, cultural production, and social impact. Such approaches offer a sustainable direction for museum education in which learning, creativity, and community engagement are mutually reinforcing.

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Endnotes:

- 1 The *Museum Act* (1951) defines the roles and functions of museums in Japan. *Article 3 of Chapter I* specifies that museums are institutions that collect, preserve, and exhibit materials, conduct research, and utilize these activities for educational purposes. This article establishes the legal foundation for positioning museums as both educational and research institutions.
- 2 Kurita 2019, chapter 1.
- 3 Kurata 1989, pp. 1–32. On p. 10, *kyoiku fukyu* is rendered as “educational propagation” in English, reflecting traditional one-way knowledge transmission.
- 4 See Tansei Institute Co., Ltd. 2011. This report summarizes the status of museum educational dissemination projects and approaches to museum educator training. See also Japan Association of Museums 2020. On p. 14, the report notes that 45.2% of museums do not have a dedicated education section or assigned staff, highlighting that in Japan, curators and educators are not clearly separated, and curators typically handle educational dissemination activities.
- 5 Ito (1991) proposes the concept of third-generation museums in Japan, emphasizing citizen participation and sustained intellectual engagement; Inaniwa and. Ito (2018) discuss participatory, citizen- and student-led museum practices—such as the Tobira Project—that exemplify characteristics often associated with fourth-generation museums, in which learners and community members actively shape educational and exhibition activities. See Ito 1991; Inaniwa, Ito 2018.
- 6 Dewey’s theory emphasizes learning through active, reflective engagement, highlighting the role of experience in education. See Dewey [1899] 2019; [1916] 2019.
- 7 Piaget 1929. Piaget’s work explores how children construct their understanding of the world, emphasizing stages of cognitive development and the active role of the learner.
- 8 Kolb 1984. Kolb’s theory presents the experiential learning cycle: learners move through concrete experience, reflective observation, abstract conceptualization, and active experimentation, emphasizing learning as a continuous process grounded in experience.
- 9 Barrows, Tamblyn 1980. This work introduces the concept of problem-based learning, originally developed for medical education, emphasizing learning through the active resolution of real-world problems and fostering self-directed, collaborative learning skills. Its principles have influenced problem-based learning approaches across disciplines.
- 10 Perry 2020, pp. 117-122. Perry outlines project-based learning as a student-centered approach where learners work on real-world projects over extended periods. The approach emphasizes collaboration, problem-solving, and critical thinking, fostering both engagement and skill development.
- 11 Chatterjee, Hannan 2015. This edited volume explores the theory and practice of object-based learning, highlighting how engaging directly with physical objects can deepen understanding and memory retention.
- 12 See Hein 1998; Falk, Dierking 2013. Hein emphasizes how museum learning is experiential and constructivist, highlighting the role of visitors’ prior knowledge, social interactions, and active engagement in constructing meaning. Falk, Dierking highlight how museums can support learning through workshops, participatory programs, and hands-on experiences, using the Contextual Model of Learning, considering personal, sociocultural, and physical contexts.
- 13 UNESCO (2024), *Framework for Culture and Arts Education* (Abu Dhabi, United Arab Emirates, 15 February 2024), accessed September 2, 2025, https://www.unesco.org/sites/default/files/medias/fichiers/2024/02/WCCAE_UNESCO%20Framework_EN_0.pdf; OECD, *Future of Education and Skills 2030/2040*, accessed September 2, 2025, <https://www.oecd.org/en/about/projects/future-of-education-and-skills-2030.html>; ICOM (2022), *Museum Definition*, accessed September 2, 2025, <https://icom.museum/en/resources/>

standards-guidelines/museum-definition/.

14 Nakadaira 2014. Similar participatory projects, such as the Togabi Art Project in which junior high school students independently organized and exhibited artwork, illustrate middle school learners acting as “kid curators” in educational contexts.

15 MusaForum is a university student-led organization at Nagoya University Museum. It presents its mission as exploring what it truly means to be a museum that makes a meaningful impact and translating that understanding into action, with a vision to unlock new possibilities and value within the museum.

16 Umemura, 2024; Demachi *et al.* 2024. The studies highlight university student-led, participatory activities that bring museum collections into the community for educational purposes.

17 Umemura, Nishikawa, Sankoda 2025.

18 Keller 1987. Keller proposes the ARCS model—Attention, Relevance, Confidence, and Satisfaction—as a framework for designing learning experiences that foster and sustain learners’ motivation.

19 Ogawa 2017. Ogawa discusses museum education as a communicative practice, highlighting interaction and dialogue between museum staff and visitors as key elements of learning.

20 Nonaka’s 1991. Nonaka introduces the concepts of tacit knowledge and explicit knowledge. In organizations, tacit knowledge is shared through dialogue, observation, and collaborative practice, and this sharing is central to the creation of explicit knowledge, forming a cycle that drives knowledge creation and innovation.

21 Umemura, Yamamoto 2024.

22 Ogata 2023. Ogata describes efforts to scientifically demonstrate, in collaboration with museums nationwide, that visitors can experience restorative or soothing effects in museum spaces, and discusses how this “Museum Bathing” initiative contributes to creating new value for museums.

23 Oldenburg [1989] 2023. Oldenburg introduces the concept of the “Third Place”, referring to social environments outside of home (first place) and work (second place) where people can gather, interact, and build community. Such spaces support informal social connections, casual conversation, and a sense of belonging.

24 Umemura 2025. The paper describes the installation of a self-measurement blood pressure device and brief mood questionnaires in the museum, revealing that some visitors expressed vulnerabilities, highlighting the museum’s value as a third place for visitors.

25 Iwasaki 2012. Iwasaki emphasizes that the transmission of intangible cultural heritage to future generations requires conscious choices both by individuals and by groups.

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