

# Effectiveness Evaluation of Public Education Programs in Art Museums from the Perspective of Social Aesthetic Education

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**Abstract:** From the perspective of social aesthetic education, public education programs in art museums are positioned as informal forms of aesthetic learning. The effectiveness evaluation of these programs faces methodological challenges due to the highly individualized outcomes and context-dependent nature. This study systematically reviews the attribute characteristics of public education programs in art museums, the conceptual evolution of effectiveness evaluation, and the mechanism of value generation. On this basis, the study constructs an evaluation framework comprising three core dimensions: the development of audiences' aesthetic cognition, the reach of social impact, and the conversion rate of resources into aesthetic education outcomes. Furthermore, the study proposes an integrated framework combining process evaluation and outcome evaluation, an information integration pathway based on multiple sources of evidence, and a dynamic evaluation mechanism driven by feedback loops. These elements together form a comprehensive effectiveness evaluation model suitable for the art museum context, thereby providing a theoretical reference for the establishment of internal evaluation systems within art institutions.

**Keywords:** Social Aesthetic Education; Public Education in Art Museums; Effectiveness Evaluation; Aesthetic Cognition Development; Evaluation Model

## Introduction

As an intermediary activity connecting art works with diverse audiences, the public education program in art museums has long lacked a theoretical framework that matches the attributes of the program in its effectiveness evaluation. Traditional evaluation tools, mostly transplanted from the fields of organizational management or school education, find it difficult to capture the processual and relational characteristics of the generation of aesthetic experience. The establishment of the perspective of social aesthetic education provides a new epistemological basis for re-examining the object of evaluation, shifting the focus from knowledge acquisition to the multi-level outcomes of aesthetic perception, emotional resonance, and meaning construction. The construction of an effectiveness evaluation system specifically tailored to public education programs in art museums has both theoretical necessity and disciplinary urgency, as it can fill the current gap in defining evaluation dimensions and constructing models, and push the research on art museum education from empirical description toward more systematic theoretical analysis.

## 1. Theoretical Basis for the Effectiveness Evaluation of Public Education Programs in Art Museums

### 1.1 Attributes of Public Education Programs from the Perspective of Social Aesthetic Education

As a theoretical framework, social aesthetic education extends the field of aesthetic education from formal educational institutions to the entire social and cultural space. It emphasizes the autonomous construction of aesthetic experience by individuals through direct dialogue with artworks. From this perspective, the core attribute of public education programs in art museums is manifested as an informal, open, and low-threshold form of aesthetic learning. The operational logic of these programs differs from the curricular and systematized evaluation system of school education. The programs no longer take knowledge transmission as the sole objective but instead take the stimulation of audiences'

aesthetic perception, emotional resonance, and meaning generation as their basic orientation. This determines that their attributes contain strong processual and experiential characteristics.

From the perspective of functional dimensions, public education programs in art museums simultaneously assume the dual roles of aesthetic mediator and cultural transmitter. As an aesthetic mediator, a program transforms the artworks collected in art museums into aesthetic experience units accessible to audiences from different backgrounds. As a carrier of cultural transmission, the program reconstructs the meaning network of the works within specific social and cultural contexts. The interweaving of these two attributes makes the program essentially a relational existence, whose value depends on the quality of interaction among the works, the audiences, the space, and the facilitators. The perspective of social aesthetic education particularly emphasizes the public nature of the programs, which means that a program should transcend the elitist model of art appreciation and open channels of aesthetic participation to diverse social groups. This requirement further strengthens the inclusiveness and adaptability of the program's attributes.

### ***1.2 Conceptual Evolution and Applicable Boundaries of Effectiveness Evaluation***

Effectiveness evaluation originally came from the fields of organizational management and public policy, and its core concern is "whether the expected goals have been achieved" and "to what extent the goals have been realized." In the process of its migration to public education programs in art museums, the conceptual connotation of effectiveness evaluation has undergone a shift from outcome-oriented to an equal emphasis on process and outcomes. After the introduction of evaluation theories from the field of education, effectiveness is no longer simply equated with the quantity of outputs or audience satisfaction, but instead includes the depth of aesthetic experience, the possibility of learning transfer, and the degree of alignment between the programs and audience needs. This conceptual evolution reflects the shift of the evaluation perspective from management control to value generation, and the expansion of the evaluation object from static outcomes to dynamic aesthetic interaction processes<sup>[1]</sup>.

Applying effectiveness evaluation to public education programs in art museums requires clarifying its applicable boundaries in order to avoid the misuse or oversimplification of evaluation tools. The core outputs of art museum education programs—*aesthetic experience, cultural understanding, and emotional resonance*—are highly individualized and context-dependent, which makes it difficult to fully convert them into comparable quantitative indicators. Therefore, the applicable boundary of effectiveness evaluation lies in distinguishing between the scope of "what can be evaluated" and "what needs to be described": for structural indicators such as participation rate, duration of stay, and activity coverage, standardized evaluation tools can be used; for deeper outcomes such as changes in aesthetic perception and transformation of attitudes, qualitative descriptions and interpretive frameworks are needed. Effectiveness evaluation should not pursue precise measurement of all program elements, but should strive to identify key diagnostic nodes that can reflect the core value of the programs, and this awareness of boundaries is the basic premise of evaluation professionalism.

### ***1.3 The Value Generation Mechanism of Art Museum Education Programs***

The value of art museum education programs is not pre-embedded in the activity design, but is gradually generated and accumulated in each stage of program implementation. The starting point of value generation lies in the aesthetic potential carried by the collections of the art museum, and this potential is transformed into aesthetic materials accessible to audiences through program planning and organization. Entering the program implementation stage, the active participation of audiences—including behaviors such as viewing, listening, discussing, and creating—becomes the core driving force of value generation, and each aesthetic response may generate new nodes of meaning. After the program ends, these nodes of meaning are further transformed into components of individual aesthetic experience through the sedimentation of memory and reactivation in daily life. This mechanism indicates that program value is essentially a relational product, relying on the continuous dialogue among the works, the audiences, and the educational context.

From the perspective of the multi-layered nature of value, the generation mechanism of art museum education programs presents characteristics of the interweaving of immediacy and delay, as well as the individual and the collective. At the immediate level, a program can trigger audiences' aesthetic pleasure, cognitive challenges, or emotional fluctuations within a short period of time, and these direct responses constitute the first layer of value generation. At the delayed level, the aesthetic experience triggered by the program may be reconstructed after a period of time through recollection, comparison,

or juxtaposition with new works, thereby generating more lasting cognitive and attitudinal changes. At the collective level, when multiple audiences share the same aesthetic situation in a program, communication and interaction may give rise to collective meanings that transcend individual experience. This mechanism of community-based value generation is precisely what distinguishes social aesthetic education from individual aesthetic education. Understanding this multi-layered and dynamic generation mechanism is the key basis for the subsequent construction of an effectiveness evaluation framework<sup>[2]</sup>.

## **2. Core Dimensions and Indicator Logic of Effectiveness Evaluation**

### ***2.1 Evaluation Dimension of Audience Aesthetic Cognition Development***

Audience aesthetic cognition development refers to the changes in an individual's ability to perceive, understand, judge, and reflect on artworks after participating in public education programs in art museums. This evaluation dimension needs to be analyzed from three levels: the sensitivity of aesthetic perception, the depth of aesthetic understanding, and the autonomy of aesthetic judgment. The sensitivity of aesthetic perception is manifested in the audience's ability to detect the formal elements (such as color, composition, and material) and expressive features of artworks, and its changes can be captured through indicators such as the audience's gaze paths before and after the program and the richness of descriptive vocabulary. The depth of aesthetic understanding concerns whether the audience can interpret the artwork within a broader cultural and artistic context, including identifying the artist's intention, the work's historical position, and its connections with other works.

The autonomy of aesthetic judgment constitutes a more advanced aspect within this evaluation dimension, focusing on whether the audience can form an independent aesthetic stance within multiple or even contradictory interpretive frameworks. The improvement of this ability is often manifested in the audience's shift from accepting authoritative interpretations to proposing personal meaning-making, and in showing a willingness to explore rather than avoidant behavior when faced with unfamiliar artworks. To systematically evaluate the above three levels, it is necessary to introduce a combination of cognitive task analysis and performance-based assessment, observing the audience's aesthetic reasoning process by setting up open viewing and discussion situations. In the evaluation process, one should distinguish between genuine development in aesthetic cognition and familiarity with a particular artistic language, avoiding the misinterpretation of knowledge accumulation as a leap in cognitive ability<sup>[3]</sup>.

### ***2.2 Social Reach Effectiveness of Public Education Programs***

Social reach effectiveness measures the ability of public education programs in art museums to break through existing audience boundaries and provide services to a wider range of social groups. The core of this dimension lies in identifying the degree of similarity or difference between the composition of the audience covered by the programs and that of the regular visitor groups of the art museum, with a particular focus on whether those groups that rarely enter the art museum space due to factors such as geography, economic status, cultural capital, or physical conditions can be included in the service scope of the programs. The evaluation of reach effectiveness needs to be carried out from two directions: horizontal breadth and vertical depth. Breadth refers to the number of different social groups reached by the programs and the distribution characteristics of these groups, while depth refers to the degree of sustained connection established between the programs and specific groups, rather than incidental participation in a single activity.

At the operational level, the evaluation of social reach effectiveness requires the establishment of a multi-layered audience classification framework that goes beyond simple demographic variables and incorporates more nuanced indicators such as cultural participation habits, frequency of art contact, and self-efficacy. By comparing the differences between the group profile of program participants and the regional population structure or the natural visitor structure of the art museum, one can judge the actual effectiveness of the programs in expanding audience boundaries. It should be noted that high reach effectiveness is not equivalent to maximizing the number of program audiences, but rather emphasizes that the programs can purposefully serve those groups who are routinely excluded from art experience. Therefore, the evaluation process should distinguish between two types of goals: "broad reach" and "deep reach." The former applies to community-oriented popularization activities, while the latter is more suitable for customized programs targeting specific disadvantaged groups or culturally isolated

groups<sup>[4]</sup>.

### ***2.3 Conversion Rate of Art Museum Resources into Aesthetic Education Outcomes***

The conversion rate of art museum resources into aesthetic education outcomes reflects the efficiency with which an art museum transforms its core assets, such as its collections, space, professional personnel, and knowledge systems, into audiences' aesthetic experience and cultural gains. This conversion is not a simple input-output ratio but involves multiple mediating steps, including the selection, reorganization, adaptation, and transmission of resources. The art museum collection serves as the starting point of the conversion process, but the original artwork itself does not automatically produce aesthetic education outcomes; it needs to be deconstructed into aesthetic units comprehensible to audiences through the planning of educational programs. Space resources, through the design of exhibition circulation, resting areas, and interactive installations, influence the audience's viewing rhythm and degree of immersion. The conversion rate of the aesthetic education value of spatial design depends on whether it can guide the audience from passive browsing to active inquiry.

The conversion effectiveness of professional human resources (such as educators, curators, and artists) is reflected in whether they can transform professional knowledge into guiding language and activity designs suitable for the cognitive levels of different audiences, avoiding the pitfalls of excessive academism or oversimplification. Evaluating this conversion rate requires the construction of a mapping relationship between resource inputs and aesthetic education outputs, where aesthetic education outputs include but are not limited to observable changes in audiences' aesthetic cognition, emotional resonance, and willingness to express themselves. One feasible evaluation path is to track the differences in audience reactions triggered by the same resource (such as a specific collection item or a guided tour) across different program formats, thereby identifying the program characteristics that facilitate efficient conversion. Furthermore, improving the conversion rate does not necessarily require an increase in the scale of resource input; instead, it depends more on the recombination and contextual activation of existing resources, a judgment that has diagnostic significance for the operational strategies of art museums<sup>[5]</sup>.

## **3. The Construction Path of a Comprehensive Effectiveness Evaluation Model**

### ***3.1 An Integrated Framework of Process Evaluation and Outcome Evaluation***

Process evaluation focuses on the operational quality and implementation logic of public education programs in art museums, while outcome evaluation focuses on the observable changes that occur in audiences after the programs conclude. The integration of the two constitutes the methodological basis of a comprehensive effectiveness evaluation model. The core task of process evaluation lies in identifying key trigger points in program design, such as whether the questions posed by facilitators are open-ended, whether dialogues among audiences form a cross-construction of meaning, and whether the activity rhythm allows sufficient time for aesthetic contemplation. These process characteristics have a nonlinear relationship with final outcomes: the optimization of one link may amplify the overall effectiveness through cumulative effects, while a weakness in a single link may be compensated by the outstanding performance of other links. The integrated framework requires placing process indicators and outcome indicators on the same analytical plane and using cross-validation to reveal which process characteristics have a higher explanatory power for specific outcomes.

Achieving this integration requires establishing a corresponding mapping relationship between process and outcomes, rather than simply listing the two types of indicators in parallel. For example, for the outcome dimension of aesthetic cognition development, the corresponding process indicators may include the frequency with which audiences actively raise interpretive questions during discussions, the number of information layers provided by facilitators when responding to audience inquiries, and the proportional relationship between blank space and structured guidance in the program design. For social reach effectiveness, the corresponding process indicators shift to the diversity of audience recruitment channels, the accessibility design of program time and location, and the degree of adaptation of program materials to audiences from different linguistic or cultural backgrounds. The construction of the integrated framework does not pursue a one-to-one pairing of all process and outcome indicators, but rather identifies those hub indicators with diagnostic significance, namely key process variables that can predict the performance of multiple outcomes simultaneously. This identification process relies on detailed analysis of a large number of program operation records.

### ***3.2 Integration of Evaluation Information from Multiple Sources of Evidence***

The effectiveness evaluation of public education programs in art museums cannot rely on a single type of data source; it must integrate multiple chains of evidence from audiences, facilitators, program records, and external observers. The evidence provided by audiences includes pre- and post-program questionnaire surveys, open-ended feedback during the program process, and trace data based on artwork viewing behaviors. Among these, questionnaire surveys are suitable for capturing changes in attitudes and self-reports, while trace data (such as duration of stay, gaze heat maps, and operation sequences of interactive installations) can reflect unreflective intuitive aesthetic behaviors. The evidence from the facilitator side is mainly reflected in program execution logs and real-time reflection records, which can supplement information that cannot be obtained from the audience side, such as strategies for handling unexpected situations during the activity, the turning points in the atmosphere of the audience group, and the degree of deviation between the preset activity process and the actual operation<sup>[6]</sup>.

Tensions or even contradictions may exist among different sources of evidence. The task of integration is not to eliminate differences in order to reach a consistent conclusion, but to present the full picture of effectiveness through multi-perspective cross-examination. High satisfaction in audience self-reports may contrast with limited aesthetic engagement revealed by trace data; in such cases, the facilitator's log may provide explanatory clues, such as the presence of distracting factors in the program environment or the audience giving positive evaluations out of social etiquette. The integration framework needs to establish hierarchical standards for the credibility of evidence. For issues related to deep changes in aesthetic cognition, trace data and open-ended responses often have higher diagnostic value than self-report scales, whereas for issues of overall program acceptance, audience satisfaction surveys and participation rate data are more direct. The integration of multiple sources of evidence is ultimately presented in the form of a narrative evaluation report, in which quantitative data and qualitative descriptions corroborate each other rather than replace one another.

### ***3.3 Dynamic Effectiveness Evaluation Based on Feedback Loops***

Effectiveness evaluation should not stop at a retrospective judgment of completed programs, but should be embedded in the continuous process of program operation, forming a dynamic evaluation mechanism driven by feedback. The basic logic of dynamic evaluation lies in transforming each evaluation result into input information for subsequent program iteration, thereby establishing a cumulative path of effectiveness improvement across multiple program cycles. This mechanism requires evaluation tools to have high timeliness and operability, capable of generating diagnostic reports for use by the education team within a relatively short period after the program ends. The content of the report should distinguish between high-priority adjustment suggestions and exploratory optimization suggestions, with the former based on evaluation findings with relatively strong evidence, and the latter pointing to hypothetical relationships that require further verification.

The effective operation of the feedback loop relies on the establishment of a clear pathway for the flow of evaluation information and the assignment of responsibilities within the art museum. The evaluation results need to be directed to three different roles: program planners, activity facilitators, and resource managers, and they should be transformed into three types of actions: program adjustments, improvements in facilitation techniques, and reallocation of resources, respectively. To maintain the continuous operation of the feedback loop, it is necessary to set reasonable evaluation frequency and sample size requirements, avoiding excessive evaluation that may overburden the team or fatigue the audience. One feasible strategy is to adopt a combination of stratified sampling and rotational evaluation, conducting lightweight tracking for high-frequency programs and in-depth evaluation for low-frequency key programs. The ultimate goal of dynamic evaluation is to cultivate an evaluation culture within the art museum organization, integrating the awareness of effectiveness into the natural flow of program planning and implementation, rather than serving as an external add-on inspection step.

## **Conclusion**

Starting from the perspective of social aesthetic education, this study constructs a three-level analytical framework around the effectiveness evaluation of public education programs in art museums, covering theoretical basis, core dimensions, and a comprehensive model. The study clarifies that the

attributes of social aesthetic education of the programs determine that effectiveness evaluation must take into account both process quality and outcome changes, and it distinguishes, at the methodological level, between quantifiable indicators and the scope that requires qualitative description. The three evaluation dimensions proposed—*aesthetic cognition development, social reach effectiveness, and resource conversion rate*—correspond respectively to the three types of core value claims of the programs: *individual growth, social inclusiveness, and operational efficiency*. On this basis, the integrated framework of process and outcome, the multi-evidence integration pathway, and the feedback-loop-driven dynamic evaluation mechanism together form an evaluation methodology system suitable for the art museum context, which differs from the linear, one-time traditional evaluation logic. Future research can advance in two directions: first, to adapt the evaluation model differentially for different types of art museums (such as contemporary art museums, historical art museums, and community art museums), examining the weight differences of the same dimension in different institutional contexts; second, to explore the design of lightweight evaluation tools that reduce operational costs while maintaining academic rigor, so that effectiveness evaluation can be truly embedded in the routine operation of art museum education programs.

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