

An investigation report on the youth education needs of the museums

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Abstract: In recent years, the youth have become the majority of museum visitors. The main purposes to carry out a survey on the youth's demand for museum are to strengthen the education role of museum, to cooperate closely with school, to provide equal and extensive educational programs for youth, and to establish the sustainable development mechanism. In this paper, the survey of museum education needs of young students, teachers and parents is carried out by using the survey method of random questionnaire, which proves the necessity of the development of the museum youth education project and the positive effect of the museum in the process of developing the youth education project.

Keywords: museum, youth, educational demand, survey

1. Introduction

Students have become the largest audience group in Chinese museums and are the main target of museum education. Especially after the Central Committee of the Communist Party of China and the State Council issued the "Several Opinions on Further Strengthening and Improving the Ideological and Moral Construction of Minors" (Document No. 8 [2004]), museums have earnestly implemented the opinions on free opening to young people, creating favorable conditions for more young people to enter museums.

From the perspective of social structure and division of labor, museum education, as an auxiliary and extension of school and family education, plays an irreplaceable role in its unique form. Especially since the 21st century, education, as the primary function of the museum's three core functions (education, research, and collection), has become a consensus worldwide. Therefore, it is necessary to conduct a survey on the educational needs of young people, teachers, and parents for museums, in order to enable museums to better fulfill the important educational functions of disseminating knowledge to young people, guiding them to establish correct life and value views.

Audience surveys are an indispensable channel for museums to continuously develop in a positive direction and are an important way for museums to continuously improve their existing work through feedback from the audience, to gain the trust of the audience, and to achieve museum educational activities that are close to reality, close to the masses, and close to life, reflecting the people-oriented concept.

To better complete the pilot promotion project on improving the function of museum youth education, to promote the effective connection between museum youth education and school education, and to explore the construction of museum youth education projects with equality and wide coverage, the National Cultural Heritage Administration has entrusted museums with a good foundation of youth education work to cooperate with local education departments and primary and secondary schools to jointly carry out museum youth education resource surveys, in order to facilitate the combination of museums and schools, and to form a long-term and positive development mechanism. The China Railway Museum has undertaken the pilot promotion project of the museum youth education function of the National Cultural Heritage Administration on behalf of the Beijing Municipal Bureau of Cultural Heritage, and conducted a survey on the needs of museum youth education for junior high school students, teachers, and parents in the Beijing area. To facilitate the smooth conduct of the survey, the China Railway Museum has specially asked the Beijing Municipal Education Work Committee for support and issued

4,000 questionnaires to 8 schools in 4 districts and counties, including key middle schools in Beijing, district-level key middle schools, and ordinary middle schools.

2. Survey content and process

The purpose of the survey questionnaire is to understand the educational needs of young people in museums, in order to closely integrate the design and curriculum reform objectives of national, local, and school-based curricula in the future. The aim is to design and develop museum youth education courses, organically combine museum resources with students' curriculum education, comprehensive practical activities, and the implementation of research-based learning. This will enhance the pertinence of museum youth education and construct teaching objectives, key points, experiential content, and evaluation standards for each age group.

The survey questionnaire has three versions designed for junior high school students, teachers, and parents, involving various groups' age, educational background, personal preferences for types of museums, preferred ways of organizing museum visits, interest in what kind of museum educational activities, views on the implementation of museum youth education guarantees, and understanding of the necessity of developing teaching materials and aids, etc., nearly 20 related issues. The purpose is to examine students' preferences for museum educational activities; teachers' conditions, methods, and willingness and needs for organizing students to visit museums and cooperate with museums to develop educational projects; the habits and preferences of parents of different ages, educational backgrounds, occupations, and family incomes for visiting museums, their attitudes and influences on children's visits to museums, and their understanding and ways of promoting the development of school-museum combined courses.

This survey hopes to understand the necessity of developing museum youth education projects, what methods should be adopted, what related conditions and guarantees should be provided, by analyzing the above issues. It aims to provide data support for expanding the growth space for young people, to facilitate the museum's continuous positive role in the development of youth education projects in conjunction with schools, and to form a scientific and effective educational plan and feasible methods. At present, there are more qualitative studies on the function of museum youth education, and fewer quantitative analyses obtained through questionnaire surveys and first-hand data. For this reason, the research group has adopted random sampling questionnaire surveys.

2.1. Questionnaire design

In accordance with the division of labor within the project, the questionnaire design personnel of the research group, based on years of experience in audience questionnaire surveys and on the foundation of literature research, selected 10 questionnaire respondents from students, parents, and teachers respectively. They conducted in-depth interviews with them on the issues to be surveyed and designed a preliminary draft of the questionnaire. Subsequently, a test survey was conducted on the questionnaire, and the existing problems in the questionnaire were revised multiple times, and the formal questionnaire for this study was finally determined.

The content of this questionnaire survey is tailored for different subjects such as junior high school students, parents, and teachers, and investigates from dimensions such as demographic characteristics, current status of museum visits, willingness to visit, and opinions and suggestions on museum educational activities.

2.2. Sampling methods and questionnaire collection

Due to the large scale of the survey subjects and the distinct regional distribution characteristics, a multi-stage cluster random sampling method was adopted. Initially, among the administrative districts at the district and county level in Beijing, Chaoyang District, Dongcheng District, Shunyi District, and Yanqing County were randomly selected as district and county samples. Within the district and county samples, schools were used as the sampling unit for cluster sampling. Beijing Heping Street No.1 Middle School, Beijing University of Technology Affiliated Middle School, and Huanggang Middle School Overseas Chinese Town Branch in Chaoyang District; Beijing No.65 Middle School and Beijing No.27

Middle School in Dongcheng District; Beijing Shunyi Renhe Middle School in Shunyi District; Yanqing County No.2 Middle School and Yanqing County No.4 Middle School in Yanqing County were selected as random samples. Within the school-level samples, cluster sampling was conducted in turn by grade and class, ultimately determining the list of students to be surveyed. Based on the identified surveyed students, the parents and teachers to be surveyed were further determined. Student and teacher questionnaires were filled out on-site and collected, while parent questionnaires were taken home by the students, filled out by their parents, and brought back to school to be handed over to the surveyors. The completion of the questionnaire was supported and coordinated by the educational committees of each district and county and the majority of teachers and students.

In this survey, the distribution of questionnaires was basically evenly distributed across the first, second, and third grades of junior high school, with a total of 4,000 questionnaires issued and all collected, resulting in a collection rate of 100%. Among them, there were 2,539 valid student questionnaires with a validity rate of 94.56%; 970 valid parent questionnaires with a validity rate of 97%; and 315 valid teacher questionnaires with a validity rate of 100%.

3. Survey methods and characteristics

This report focuses on the differences among teachers, students, and parents from schools of various regions and levels, starting from aspects such as age composition and educational background. It categorizes and compares these differences. Initially, for the three groups—students, teachers, and parents—it conducts a separate statistical analysis of each question and the interrelated factors, drawing basic conclusions for each. Then, by comparing and linking the three groups, it identifies commonalities and differences in their educational needs from museums. Finally, through comprehensive statistical analysis, combined with the experience of museum educational practices, it summarizes and analyzes the conclusions drawn from this survey and provides reasonable suggestions for the development of museum youth education programs.

4. Statistical results and analysis

4.1. Student questionnaire

The first part is an investigation of the basic situation of students, including grade, gender, preferred and better-performing subjects, and disliked and poorly-performing subjects. From the survey, the ratio of male to female students is quite balanced with a slight predominance of females. In terms of academic subjects, Chinese, Mathematics, and English, the main courses, have gained the attention of the majority, with the emphasis on science subjects generally higher than that on humanities, and humanities subjects such as History, Geography, and Politics have been "cold-shouldered," which also corresponds to the current state of the educational system.

The second part mainly investigates students' attitudes towards museums. Nearly 80% of students enjoy participating in museum visits organized by schools, with effective visit durations of more than 1-2 hours, and science and art museums are more favored by students. Compared to the museum environment and multimedia displays, students value the diversity of exhibition content and hands-on experience more, with art museums that focus on appreciation and science museums with strong interactive experiences being more popular. Regarding the most favorite museum feature activities, hands-on science experiments and on-site handicraft making account for the largest proportion. At the same time, more than 70% of students prefer free visits, indicating that students prefer a more relaxed visit and activity style (see Table 1).

Table 1: Statistical Table of Beijing Area Junior High School Students' Attitudes Toward Museums

The favorite way to visit a museum		
Option	Quantity	Percentage
Free-roaming style	1803	71%
Self-guided tour with learning materials	330	13%
Guided tour by a docent	305	12%
Others	101	4%
Favorite types of museums		
Option	Quantity	Percentage
Science and Technology	1346	53%
Art	635	25%
History and Folklore	279	11%
Industry	152	6%
Memorial for Figures	127	5%

The third part mainly investigates students' attitudes towards the design and development of educational projects. Regarding the "development methods of museum youth education projects," more than half of the students believe that it is necessary to find the integration points between museum exhibitions and school curriculum content. Students pay great attention to the connection between museum activities and school courses. As an off-campus educational resource, museums must be distinct from school education in content and form to play a supplementary role. A staggering 55% of students believe that teachers are dispensable during museum visits, which is because teachers spend most of their energy on maintaining order and ensuring student safety, rather than imparting knowledge. 69% of students believe that there is a need to develop supporting teaching aids, combined with the survey results that students prefer hands-on production and experimental activities, indicating that museums should focus on the design and development of hands-on and experimental activity projects in science education.

The fourth part mainly investigates students' attitudes towards online classes and science popularization in schools. For online courses, the proportion of students who think they are very helpful and not very helpful is equal.

The results of the student questionnaire survey mainly reflect the following situations: First, students generally believe that museums are helpful for increasing knowledge and broadening horizons. Second, many students mentioned that they hope to visit museums with rich exhibition content, learn various knowledge beyond textbooks, and participate in activities with strong interactivity and scientific experiments. Third, students hope that the explanations can be more vivid, and knowledge should be conveyed in ways that are easy for them to accept, such as stories and examples.

4.2. Parent questionnaire

The first part mainly investigates the basic information of parents, including age, education level, occupation, and average monthly family income. Parents with a bachelor's degree, working in government or public institutions, and those who are self-employed show the highest enthusiasm for taking their

children to visit museums. At the same time, families with a monthly income between 6,000 and 10,000 yuan have the highest proportion of taking their children to visit museums.

The second part mainly investigates parents' attitudes towards their children visiting museums. In terms of the frequency of taking children to visit museums, about 70% of parents said they occasionally take their children to visit, and combined with the survey on "museum fee situation," it can be indicated that the cost has little impact on parents' choices to take their children to visit museums. In terms of the types of museums that parents like, science and art museums are the most popular, and this result is basically consistent with the students' choices. Most parents agree with schools organizing museum visits and believe that interactive experience activities are the most helpful for children. Based on this, it can be seen that in the compulsory education stage dominated by textbook learning, students and parents have the same expectations and needs for museum activities, that is, they hope to participate in educational activities with strong interactivity and high participation (see Table 2).

Table 2: Statistical Table of Beijing Area Junior High School Students' Parents' Attitudes Toward Their Children's Museum Visits

Survey on whether to visit museums with children during leisure time		
Option	Quantity	Percentage
Sometimes	708	73%
Never	136	14%
Frequently	126	13%
Whether museum admission fees affect visit choices		
Option	Quantity	Percentage
Will consider, but attractiveness of the event is the priority	582	60%
No impact, as long as the event is good, not afraid of spending money.	281	29%
If there is a charge, would rather choose another place.	58	6%
Others	49	5%

The third part mainly investigates parents' attitudes towards the design and development of museum youth education projects. Regarding the starting point of youth education projects, parents' views are not quite consistent with students' views; compared to students, parents are more looking forward to a close integration of museum education with school education, so that students can learn more knowledge and skills. At the same time, 49% of parents believe that museum education should be included in the primary and secondary school education plans, and another 35% of parents expect policy support from both the Cultural Relics Bureau and the Education Commission. More than half of the parents are in favor of developing supporting teaching materials and believe that it is necessary to train teachers before organizing activities by museums and schools. All these indicate that parents have high expectations for their children's learning in museums.

The fourth part mainly investigates parents' attitudes towards the use of multimedia in museum teaching. The majority of parents believe that online classes are very helpful for children's learning, which is inconsistent with students' views. In terms of ways to learn about museum activities, the top two are the official website and the official WeChat. With the development of mobile internet, WeChat is likely to replace Weibo as the most popular new media platform.

The survey results show that parents' suggestions for museum education projects mainly include the following four aspects: First, education projects should be designed according to the characteristics of the

museum and students' interests, with students choosing whether to participate; Second, education projects should add elements such as experiments and experiences to guide learning and expand abilities; Third, they hope to introduce museum education projects into middle school curriculum education to increase the interest and practicality of course learning; Fourth, they suggest organizing more visits to patriotic education bases for students, guiding them to correctly understand history and social development, and cultivating the correct values.

4.3. Teacher questionnaire

Due to the significant difference in numbers between teachers and students, only 315 teacher questionnaires were distributed in this survey, all of which were collected. During the questionnaire survey process, interviews with teachers were also added to ensure the objectivity and scientific nature of the questionnaire.

The first part mainly investigates the basic information of the teacher group. In the age survey, 70% of the teachers are under the age of 40. The general academic qualification for secondary school teachers is a bachelor's degree, which is in line with the actual situation.

The second part mainly investigates the attitudes of teachers towards organizing students to visit museums. Almost all teachers agree with organizing students to visit museums, with history and folklore, science and technology, and art museums being the favorites of teachers. In terms of visiting methods, teachers prefer school-organized visits and organizing their own class students to go to museums for practical classes. In the survey of the best way for students to visit museums, more than half of the teachers believe that guided tours led by a docent are superior. This is different from the result that students prefer free activities. Teachers evaluate from the perspective of the effectiveness of the visit, while students start from their interests and hobbies, thus creating a difference (see Table 3).

Table 3: Statistical Table of Beijing Area Junior High School Teachers' Attitudes Toward Organizing Student Visits to Museums

Types of museums preferred for student visits		
Option	Quantity	Percentage
Historical and Folklore Category	107	34%
Natural Science and Technology Category	94	30%
Art Category	76	24%
Industry Category	25	8%
Memorial for Figures Category	13	4%
The way of organizing visits to the museum		
Option	Quantity	Percentage
School-organized group visit	151	48%
Teachers organize a class to visit the museum for a practical lesson	101	32%
Organize family parent-child activities for a visit by class unit	38	12%
Individual family visits with children on their own	25	8%

The third part mainly investigates teachers' attitudes towards the design and development of museum youth education projects. In the question of "whether teachers should be involved in the education project," more than half of the teachers believe it is necessary, which aligns with the opinions of parents but is not quite consistent with the views of students. Most teachers believe that the primary condition for the smooth implementation of the education project is to include museum education in the primary and

secondary school education plan, and the education project should have supporting teaching materials. In the survey on "whether it is necessary to train teachers before organizing school activities," as many as 68% of teachers believe it is necessary. The results of this survey show that teachers are very willing to participate in and cooperate with the design and development of museum education projects.

The fourth part mainly investigates teachers' attitudes and requirements for online courses (video teaching) and follow-up educational activities. 56% of teachers believe that online classes are helpful for students' learning, which is consistent with the opinions of students' parents. In the follow-up services provided by museums after the visit, the proportions of providing a question-and-answer session, providing teaching materials, and actively collecting feedback on the effectiveness of the visit are close.

The suggestions from the teacher questionnaire survey data for the development of museum youth education projects mainly include the following three aspects: First, museums should provide more and better exhibitions and interactive experience projects; Second, it is hoped that museum education will be included in the school education system, with a complete mechanism and time requirements; Third, there should be an increase in training for teachers and the compilation of teaching materials.

5. Conclusion

Based on the survey data, teachers and parents share many common understandings in the development of museum education projects, but there are some inconsistencies with students' perceptions on certain issues. These differences are mainly reflected in the varying levels of interest in museums and the focus on the museum's own exhibitions. Students are concerned with their own enjoyment and interest in museums, while teachers and parents are more concerned with the educational outcomes and close connection to the school curriculum. The vast majority of teachers and parents believe that teachers should be involved in the development of museum education projects, while students prefer a greater role for museum workers. Teachers and parents place great importance on the guiding role of docents, while students prefer a more free-roaming visit style. A comprehensive analysis of the survey results from the three questionnaires shows that all three groups are very concerned about the development of museum youth education projects and believe it is very necessary; they all approve of organizing students to visit and learn in museums, and they agree on the development of teaching aids and online video teaching.

Based on the above survey analysis results, we believe that:

Firstly, museums should place greater emphasis on the development of youth education projects and make the education of young people a key part of their daily work. At the same time, museums should enhance the construction of interactive experience areas and hands-on laboratories, and develop more exhibits, teaching aids, and practical experimental projects that are of interest to students, parents, and teachers and are closely related to the school curriculum.

Secondly, the Cultural Relics Bureau and the Education Commission should fully exercise their governmental functions, supervise each other, support from a policy perspective, include museum education in the daily teaching plans of primary and secondary schools, and increase funding to develop corresponding educational resource packages and teaching materials and aids.

Additionally, museums should strengthen communication and contact with teachers. For activities such as visits to museums and museum programs in classrooms, both the museum and school sides should enhance cooperation and exchange, actively cooperate, and work closely together in the development of youth education projects.

At the same time, the survey results also reflect that: as the practical work of museum education continues and deepens, on the one hand, this work has provided good conditions and strong positive energy for the healthy growth and comprehensive development of young students, which has been widely welcomed by students, parents, and teachers; on the other hand, there are deficiencies in the work of museum youth education, and the public's expectations for museum youth education are relatively high, urgently requiring continuous innovation in educational forms, enrichment of educational content, and the design and development of more educational projects and activities that young people enjoy, effectively improving the effectiveness of museum youth education work.

This survey reveals that to effectively engage in museum youth education, efforts should be focused on the following aspects:

(1) Establish a service philosophy, prioritize youth education in museum education

Museums should establish youth education as a focal point of their educational efforts, recognizing it as a fundamental task that deserves a prominent position. A youth education working group should be formed, led by the museum's principal leaders, managed by responsible executives, and involving researchers and museum educators. The group should expand the team of docents and optimize their professional structure according to the needs of youth education. Concurrently, museums should establish a regular cooperation mechanism with schools. Executives in charge and educational outreach staff should periodically visit local education authorities and partner schools, or invite teachers and educational researchers to the museum for seminars and discussions. This will help understand students' knowledge structures, cultural needs, value orientations, and quality conditions. Discussions should be held on how to promote interaction between the museum and schools and how to provide students with a more effective cognitive environment. Plans and specific implementation schemes should be developed. By raising awareness, increasing investment, and student-centered approaches, museums can guide and assist students in visiting museums more frequently, integrating the museum experience into their learning, leisure, and daily life.

(2) Integrating education with pleasure, making learning a joyful journey

Whether it is students, parents, or teachers, all have suggested that museum education should focus on being close to students' behavioral habits and psychological characteristics, respecting their interests and hobbies, rather than just focusing on what the museum itself wants to display and express. It is essential to discard the mechanical and dogmatic old ideas of making students "remember what they should remember" and "understand what they should know." Through different types of educational activities, students should be guided to discover new fields, gain new knowledge, and inspiration during the "play" process. They should have rich experiences in a real and relaxed environment to achieve the goal of cultivating a sound personality.

Transform the youth education work in museums from static displays to dynamic activities and interactive experiences, turning dull and tedious preaching into lively and interesting activities and games. When museums become venues full of fun activities, their profound cultural heritage will moisten the hearts of young people and nourish their spiritual world in a subtle and silent way, continuously shaping healthy and civilized modern individuals for society.

(3) Respecting the subject status of youth and stimulating creativity

Compared to formal educational forms such as school education, the greatest advantage of museum education lies in the openness, autonomy, and innovation of information dissemination and acquisition. The most frequent needs and expectations of "interest, interaction, participation, experience" mentioned in the suggestions of students, teachers, and parents reflect the common call of the whole society for museum youth education today. The achievement of this consensus fully embodies the contemporary philosophy of "people-oriented, respecting people, and respecting human subjectivity and creativity."

Whether it is an interactive display process, an enjoyable activity experience, or fascinating experimental phenomena, the purpose of designing and implementing museum education projects is to: create an environment for students that allows them to fully exert their subjectivity and creativity, to maximize the stimulation of visitors' hobbies and interests, and to help them gain the courage, confidence, and strength to explore the unknown world under the guidance of their interests.

6. References

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