# THE SARAWAK MUSEUM JOURNAL

https://doi.org/10.61507/SMJ22-2022-765B-09





The Sarawak Museum Journal Vol. LXXXV No. 106
December 2022





ISSN: 0375-3050 E-ISSN: 3036-0188

**Citation:** Aihong Fan, Zihe Xia and Amanda Ling Yin (2022). "Flipped Museum" Patern: An Effective Way to Deeply Integrate Museum Education with Course Teaching. The Sarawak Museum Journal, LXXXV (106): 185-204

# "Flipped Museum" Pattern: An Effective Way to Deeply Integrate Museum Education with Course Teaching

\*Aihong Fan¹, Zihe Xia² and Amanda Ling Yin³ Tsinghua University Science Museum.
\*corresponding author fah@tsinghua.edu.cn

### **ABSTRACT**

Education is well acknowledged as one of the core missions of university museums. Despite diverse education activities conducted, several problems do exist in practice, such as the lack of combination between the museum and university formal education, unsatisfied results out of traditional museum education approaches, etc. Based on the pedagogical theory of the "flipped classroom", a new pattern of museum education - "flipped museum" is promoted in the paper, which embeds museum education into classroom teaching as a "knowledge internalisation" link. The concept of "flipped museum" is illustrated in the literature review and further researched in way of the qualitative descriptive case study of four educational activities, focusing on the aspects of feasibility plans, basic characteristics, implementation significance, etc. The four cases are jointly conducted by Tsinghua University Science Museum and the departments in Tsinghua University deriving from the normal curriculum. It is demonstrated that the "flipped museum" pattern can promote the deep integration and mutual benefit between university museums and university classroom teaching, so as to improve the quality of higher education. Hence, during education processes, museum staff turn to be the close partner of teachers, bringing the educational value of museum exhibitions into full play.

**Keywords:** Flipped museum, museum education, university museums, science museums, higher education



# "FLIPPED MUSEUM" PATTERN: AN EFFECTIVE WAY TO DEEPLY INTEGRATE MUSEUM EDUCATION WITH COURSE TEACHING

\*Aihong Fan<sup>1</sup>, Zihe Xia<sup>2</sup> and Ling Yin<sup>3</sup>

Tsinghua University Science Museum.
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Education is well acknowledged as one of the core missions of university museums. Despite diverse education activities conducted, several problems do exist in practice, such as the lack of combination between the museum and university formal education, unsatisfied results out of traditional museum education approaches, etc. Based on the pedagogical theory of the "flipped classroom", a new pattern of museum education - "flipped museum" is promoted in the paper, which embeds museum education into classroom teaching as a "knowledge internalisation" link. The concept of "flipped museum" is illustrated in the literature review and further researched in way of the qualitative descriptive case study of four educational activities, focusing on the aspects of feasibility plans, basic characteristics, implementation significance, etc. The four cases are jointly conducted by Tsinghua University Science Museum and the departments in Tsinghua University deriving from the normal curriculum. It is demonstrated that the "flipped museum" pattern can promote the deep integration and mutual benefit between university museums and university classroom teaching, so as to improve the quality of higher education. Hence, during education processes, museum staff turn to be the close partner of teachers, bringing the educational value of museum exhibitions into full play.

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### INTRODUCTION

It is acknowledged that the university museum is an integral part of the museum family with a long history and distinctive characteristics and has a unique position in the development process of world museums. It presents a trend of rapid development in recent years. Whether it is the world's earliest public museum, Ashmolean Museum of Art and Archaeology, founded in 1683, or China's first museum, Nantong Museum, founded in 1905, all originated from universities. World-class universities all have their own high-level museums throughout the world, and Tsinghua University is actively building its university museum cluster.

Education is one of the critical functions of museums which is taken as museums' primary duty according to the International Council of Museums (Sandahl, 2019). As a British Museologist Eilean Hopper-Greenhill said, the museum itself is an educational institution, and all activities of the museum have educational purposes (Walsh-Piper and Hooper-Greenhill, 1994). Apart from shaping the cultural tradition of the university, there are two critical educational missions for university museums. One is to support student growth in the university, the other is to improve the scientific and cultural literacy of the public. The former is the foundation of the foothold, and the latter is the due meaning (Bradley, 2009; Wu, 2020).

There are several types of university museums, such as art museums, history museums, and science museums, with different educational objectives and implementation methods. Unlike western countries, university science museums started the latest and have the least number in China. Despite the cases in the paper embodying the educational activities of Tsinghua University Science Museum, the educational pattern deriving from the cases is also applicable to other types of university museums.

With the continuous exploration and practices by university museum staff, various education approaches have been carried out in university museums around the world, as well as in China, such as miscellaneous visiting activities around exhibitions, knowledge popularization courses, and workshops relating to all aspects of the museum, practice and research projects facing to the audience, auxiliary support for relevant course teaching (Matthias, 1987). However, generally speaking, the following problems are still common in the current university museum education.

(1) As a kind of informal education, museum education tends to lack integration and interaction with formal education, and even has a certain degree of disconnection. Exhibition resources cannot be excavated deep since visiting exhibitions is always taken as an educational means to improve students' comprehensive quality. Moreover,

the importance of museum education in the parts like university teaching and scientific research has been ignored for a long term, so its active participation lacks.

- (2) The effect of university museum education requires to be polished. Museum visiting merely rests on physical observation and one-way explanation as acknowledged by the public (Fan et al., 2018), most of which are short in interactive communication and design for objectives to cater to the needs of course education. There is a far distance between normal museum visiting activities and curriculum-targeted education, where the need of personalized learning and knowledge system cognition is not appreciated. In another word, students are always taken to the museum aimlessly, and seldom gain information in-depth.
- (3) Generally speaking, the educational methods of university museums are relatively casual and lack the guidance and norms of educational theory.

To solve the above problems, it is necessary to form a pattern of organic combination, mutual promotion and coordinated development between museum education and university education, so as to realise the core values of museums and broaden their own development space. University museums should actively use effective new educational means and deeply embed themselves in university teaching and scientific research activities. However, in reality, there are few relevant theoretical research results on how to promote the organic combination of museum education and university education and effectively realise the mission of cultivating talents.

As demonstrated in the paper, a new pattern "flipped museum" is supposed to be introduced in museum education. To prove the demonstration, the authors take concept interpretation, literature research and case studies with the aim of solving the problems commonly faced by the current university museum education and making the museum education closer to higher education, along with better educational effects of museum exhibitions played. The fundamental goal is to discuss and sum up several universal rules in "flipped museum" pattern that can be applied in general university museum education.

### ABOUT THE "FLIPPED MUSEUM" PATTERN

## From "Flipped Classroom" to "Flipped Museum"

The concept of "flipped museum" originates from a pedagogical term "flipped classroom" which popped up in recent years along with online education. In the early 1990s, Eric