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The Application of Immersive Experience in Museum Teaching

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ABSTRACT

In recent years, museums have shifted from “things as the core to people as the core”. The people-oriented navigation model has increasingly become the center of the museum’s youth education. However, the inherent shortcomings of traditional museum teaching no longer meet the needs of today’s society. Therefore, from the perspective of immersive teaching, the author innovates museum teaching. The design of a new museum teaching mode through the integration of the Dick & Carey model and the “learning” -based teaching model is important for the application of immersive teaching in museum education.

1. Introduction

“Immersion” refers to being completely in a certain state or thought activity. “immersion teaching” is a language teaching mode for the second language at the earliest. It refers to a completely closed language teaching mode in which the target language is used for teaching. This teaching mode blocks the interference of the mother tongue and makes students completely

immersed in the learning of the second language, thus forming the habit of foreign language thinking^[1]. Quebec, Canada, took the lead in implementing the experiment of immersive French teaching. From kindergarten to high school, the curriculum was designed in a unique way to achieve the effect of “immersion”^[2]. Later, this teaching method was gradually popularized in Canada and then widely used by western countries such as the United

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Immersive teaching provides a unique learning situation. In the process and concept of learning cognition, students can fully engage in multi-sensory experience to achieve an immersive state, so as to achieve better learning effect.^[3]In recent years, the immersive teaching model has no longer been limited to language teaching, but also applied to basic classes, quality education and other courses, and has achieved good results.

2. Status of Guided Teaching in Traditional Museums

Guided tour of the museum, is guided and visited. The traditional guided tours of the museum are mainly signboards, audio explanation equipment, interpreters and so forth. However, the traditional explanation mode is extremely limited in achieving “relic art”. And the unilateral output is difficult for the museum’s young scholars to learn more diverse description of cultural objects⁴. Immersive teaching allows students to visit the museum with problems, breaking the stereotyped image of the museum, giving children the role of explorer in advance through context education, and transforming passive acceptance of knowledge into active exploration of knowledge. Interactive and other media make the exhibition more attractive. The traditional passive education concept of a single means of propaganda and education is not enough: First, the attractiveness of teaching design is insufficient. Traditional museum teaching is a unilateral output, the participation is not high, and the connection between the lecturer and the visitor is easily broken; Second, the teaching content is not scientific. At present, most museums do not need to be prepared by the visitors in advance, nor do they need to check the effect after the visit. It is normal for most museums to visit flowers, and the knowledge acquired during the visit is easily fragmented, which is not conducive to knowledge Systematic acquisition; Third, the teaching evaluation method is unreasonable. Traditional museum teaching mainly cooperates with museum volunteer interpreters or travel agencies. Post-class ratings are mostly limited to the evaluation of process services, and do not go deep into the content of the course and the effectiveness of teaching. Therefore, the museum guide service, especially for young people, should take advantage of advanced education concepts to organically combine traditional and emerging navigation methods, and carry out diversified guides and innovative education models for the resources and characteristics of exhibits in the museum⁵.

3. Application of Immersion Teaching in Museum Education

3.1 Course Design Based on Immersive Teaching Mode

Museum education compared with in terms of basic education has more flexibility, venue for the teachers and students to provide physical and scene, so that the students can be personally involved, intuitive to learn firsthand material. So in the teaching, teachers should pay attention to the interactive design requirements, giving students more say, form centered on “learning” rather than “speak” centered teaching system design. Constructivist perspective of “learning” as the center emphasizes the initiative of students in the learning process and constructive, but easy to cause the students to explore the direction and content of knowledge alienated the teaching goal, the whole teaching process is loose and difficult to control, so still need to introduce Dick & Carey system teaching design model as immersion teaching system design reference. The core idea of Dick & Carey model⁶(Figure one) lies in systematization, emphasizes the integrity and compactness of teaching process. And avoids the problems existing in students’ independent exploration, such as vague teaching objectives and loose teaching process, so as to achieve the best effect of immersion teaching.

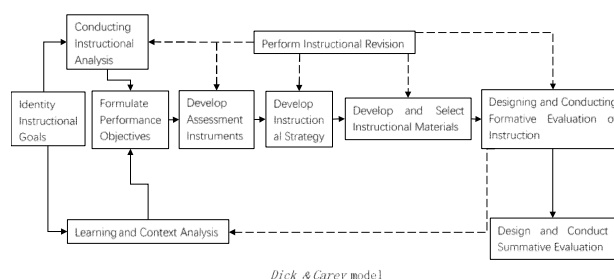


Figure 1. Dick & Carey model

The combination of Dick & Carey model and learning-centered teaching model (Figure two) was applied to immersive teaching to form the following model:

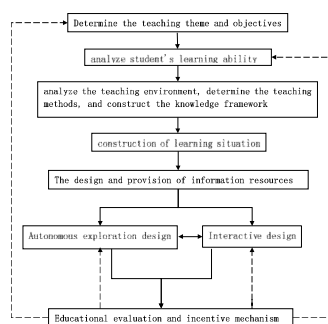


Figure 2. learning-centered teaching model

(1) Determine the teaching theme and objectives: to determine the teaching theme and objectives is the first step of teaching design, teachers are required to design the curriculum theme according to the type of museum, so that the explanation around a point of interest. In addition, teachers should have a preliminary design of the overall teaching objectives, that is, the exhibits that need to be explained and the relevant knowledge that students need to master through the course.

(2) Analyze student's learning ability: after determining the subject of the course, teachers need to conduct a detailed analysis of the students' learning ability, including students' learning ability, knowledge reserve, cognitive ability, etc.

(3) Analyze the teaching environment, determine the teaching methods, and construct the knowledge framework: after determining the basic situation of students, teachers need to analyze the on-site environment of the museum, including the design of exploration and explanation routes, and the design of activities of each link, so as to construct the knowledge framework of the course and determine the teaching methods.

(4) Construction of learning situation: teachers also need to design the museum scene according to the theme into a unique learning situation, the real scene and the teacher to build a virtual scene of fusion, for students to create a role in the situation, the exhibits in the museum into the elements of the situation, become part of the curriculum.

(5) The design and provision of information resources: the design of information resources refers to the determination of various information resources needed in the course and the role of each resource in the learning process. First of all, it is necessary to identify the exhibits to be explained in the course and the museum resources to be used, and apply them to all aspects of the course. Second, to determine the use of relevant teaching aids. Finally, immersive education focuses on mobilizing students to receive information from multiple senses and requires teachers to determine the combination of multimedia in teaching.

(6) Autonomous exploration design: autonomous exploration design is the core of curriculum design, teachers are required to design students' exploration links, so that students in the play of initiative while exploring the direction of the theme, to avoid random, aimless learning.

(7) Interactive design: interactive design includes two aspects, on the one hand is the interaction design between students, that is, the collaborative design required by the activity process, through group discussion, consultation, cooperation to further improve and deepen the meaning

of the topic construction; On the other hand, it refers to the interaction design between teachers and students, that is, the design of anchoring, questioning, summarizing and other links in the course of the lecture.

(8) Educational evaluation and incentive mechanism: the last link of curriculum design is teaching evaluation, which is carried out from two aspects, one is students' evaluation of their own learning effect, the other is teachers' evaluation of students' learning.

3.2 The Implementation of Immersive Teaching in Museums

The use of immersive teaching mode helps students to grasp knowledge, and the museum provides a field scene for teaching, enabling students to gain knowledge from physical participation. Before the activity, teachers need to construct the learning situation for students, that is, the lead-in link before class, clarify the course theme and the role students need to play, and explain the rules of course exploration. The second part is the anchoring part. When students officially enter the learning situation, teachers need to guide students in learning, introduce relevant questions and stimulate students' interest in exploration. The third part is the main part of the course, that is, the exploration process. Before the formal exploration, the teacher needs to explain the challenging tasks and the reward mechanism, and the students come into the museum with questions to explore. After completing each challenging task, teachers and students need to make a summary. Teachers will comment on students' exploration results and explain the key points. The evaluation link exists in the exploration process and the after-class link. At the end of the course, teachers and students need to repeat the course and summarize each link. In addition, students are required to evaluate their own learning results, and teachers are also required to evaluate students' learning and course progress, so as to correct the deficiencies in the course according to the feedback information.

4. Effect and Deficiency

4.1. Application Effect of Immersive Teaching Method in Museum Teaching

The immersive and diversified guide service has effectively improved the satisfaction of young people in visiting the museum, and provided an idea for the development of museum youth education. However, as we all know, the development of domestic museum education is extremely uneven, and families in different places pay different attention to youth museum education. The museum's innovative guided teaching activities proposed by the author

allow young people to enter the museum as explorers and explore interactively with questions, which can stimulate young people's enthusiasm for participation, but it is limited by the size of the space. Although the number of participants is in small classes It is also based on system control, and the content of activities cannot be fully covered in the practical behavior of each experimenter. It is difficult to guarantee the quality of teaching and not allow each participant to fully experience the essence of the activity. The promotion of immersive museum teaching proposed by the author is a key and difficult point in social education to cultivate young people's loyalty to visit the museum and encourage them to visit the museum. This requires the joint efforts of museums, schools, teachers and parents. From "I want to learn" to "I want to learn", while teaching and having fun, strengthen the understanding and inheritance of deep culture, improve comprehensive quality, strengthen local historical and cultural identity, and strengthen national cultural self-confidence and cultural consciousness.

4.2 Insufficient Application of Immersive Teaching Method in Museum Teaching

The application of immersive teaching method to museum teaching is relatively late, its theoretical system is not perfect, and the construction of the case library is not complete, so there are some shortcomings, especially the main company that develops immersive teaching in museum quality education in China is Nanjing Yuri Card Time Education Technology Co., Ltd., the new museum teaching model proposed by the author has not fully achieved the original idea and ultimate purpose of immersive teaching methods. The following focuses on the problems in the application of domestic immersive teaching methods in museum teaching.

The contradiction between immersive teaching method and domestic traditional teaching method is not easy to resolve. Most of the traditional Chinese education model, exam-oriented education, is a duck-and-duck teaching method. It is not easy to break this teaching model, society, families, schools and individuals need to pay considerable attention. To introduce immersive teaching in the second classroom museum teaching, education concepts must be updated⁷. Visitors have limited time and energy. As the main group of young people in museum teaching, their pressure for further studies and homework is high. Immersive museum teaching requires a high degree of student participation. Before the participation, they need to wear explorer equipment. During the exploration, they must cooperate with the guide to actively explore. Non-mandatory supporting exercises can be consolidated.

Generally, participants are required to have a high degree of participation. It takes time and energy to achieve good results.

5. Conclusion

With the continuous development of economic education and the new requirements of the times for young people, the simple exhibition style of traditional museums "open warehouses" can no longer meet the real needs of today's young visitors. An immersive viewing experience may allow visitors to interact with the exhibits and change their passive status⁸, and actively explore, to a certain extent, the effect of enabling visitors to enjoy or experience the exhibition. More and more museums pay more attention to the study of visitor experience. In the future, the application of immersive experience in museum display system will become more and more personalized, meeting more and more diverse public needs. Museum immersive teaching has many positive meanings, but it should also consider the high quality of teachers, the difficulty of rationalizing the curriculum design, and the cost of teaching classrooms, especially the technology and equipment required for museum immersive teaching. There are problems and deficiencies in the practical application of design teaching. After the specific implementation, we should summarize the experience and continuously improve the course design and analyze and summarize.

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