Making History Interactive

An Interdisciplinary Qualifying Project Proposal

WORCESTER POLYTECHNIC INSTITUTE

Submitted by:

Nhi M. Dao

Shannon M. Doherty

Benjamin D. Landry

T. Chase Golightly

Submitted to:

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Professor Stanley Selkow, Major Advisor

_____

Professor Jeanine Skorinko, Co-Advisor

_____

Esa Leung, Chief Curator
Rebecca Cheung, Assistant Curator 1 (Extension Services)
Priscilla Wong, Assistant Curator 2 (Extension Services)
Hong Kong Museum of History

Abstract

In order to preserve culture, a number of institutions and organizations are dedicated to educating the new generations about cultural history and traditions. Working with the Hong Kong Museum of History, we developed interactive activities to engage visitors in learning about the culture and history of Hong Kong. Past research shows that hands-on activities and interactive computer games enhance learning. Also, people learn best when information is presented in various forms, e.g., visually, auditory, written, and hands-on. Based on these findings, we created interactive hands-on and computer activities that utilized multiple learning styles to enhance learning on different regional festivals and cultural heritage. These activities were implemented in an interactive activity room of the Hong Kong Museum of History. We also evaluated the effectiveness of these activities by conducting observational and survey studies. Our analyses showed that participants were attracted to, enjoyed, and learned from the interactive activities. Thus, we have utilized interactive learning to promote cultural heritage in Hong Kong.

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Authorship Page:

Benjamin Landry contributed to the authorship of the Background, Methodology, and Results. He researched, designed, and constructed the Fortune Telling game, the Board Game, and the Door God activity. He contributed to computer game illustrations. He designed and constructed all of the surveys.

Nhi Dao designed and programmed all the computer games (Salted Fish, What Belongs, & the Quiz game) and provided additional game illustrations. She also wrote the Abstract and constructed the title page. She acted as a Cantonese interpreter and was responsible for answering questions concerning the survey.

Chase Golightly wrote the Conclusions/Discussion, compiled the Appendices, and contributed to the Methodology. He also contributed to the hands-on, computer game, and display illustrations. He also designed and constructed the Door God activity and formatted the final paper.

Shannon Doherty wrote the Introduction and contributed to the Background and Results. She researched, designed, and constructed all of the informational displays and Spring Scrolls. She designed the observational study and constructed the observation note taking sheets.

The entire group contributed to the Executive Summary and helped to edit the paper. All members evaluated pre-existing exhibits. Each member contributed to evaluating the room during the week of evaluations.

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Executive Summary:

"…in view of the magnitude and gravity of the new dangers threatening them [cultural and natural heritage], it is incumbent on the international community as a whole to participate in the protection of the cultural and natural heritage…"

~The United Nations Educational, Scientific and Cultural
Organization's General Conference in Paris France, 1972

Preserving cultural heritage is an important concern for all world societies "considering that deterioration or disappearance of any item of the cultural or natural heritage constitutes a harmful impoverishment of the heritage of all the nations of the world" (UNESCO, 1972, p. 1). In order to safeguard their culture, a number of institutions and organizations dedicate themselves to educating new generations about their history and traditions. As one such organization, the Hong Kong Museum of History is committed to educating the people of Hong Kong about their cultural heritage in order to support the history museum's educational objective. Past research shows that cultural education can be improved through the use of interactive activities as illustrated by a study conducted at a museum in Limerick, Ireland (Ciolfi & Bannon, 2002). Based on these findings, we designed an interactive activities room to encourage cultural learning for museum visitors. Evaluation of the room's interactive components determined their effectiveness in improving the learning process in regards to cultural infomation.

In order to promote cultural education in Hong Kong, we relied on past research to design an educational room that utilizes interactive learning. The design of the interactive room was based on research related to history museum audiences, exhibit design, and different learning preferences of visitors of this region. The room's educational focus was to further the

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knowledge about four of the ethnic groups of Hong Kong and traditional Chinese festivals practiced in Hong Kong, with a particular focus on children from ages 9 to 14 years old. This was done through a series of hands-on activities, computer games, and informational displays implemented in an Education Corner located in the museum.   In order to evaluate the components of the Education Corner we preformed observational studies and used written surveys to assess the level of visitor attraction, amount of attention paid to each component, the ease of use, the level of fun, the amount of group interaction, and the amount of knowledge gained. Based on the data collected we determined that all of the computer games, hands-on activities and informational displays were well received by museum visitors. Furthermore we found that the designed interactive activities promoted group interaction and cultural learning. From this analysis we advise that it would be beneficial for the Hong Kong Museum of History to implement an interactive room in their Gallery 4: Folk Culture in Hong Kong to facilitate the teaching of cultural education.

Chapter 1: Introduction

"…the cultural heritage and the natural heritage [of the world] are increasingly threatened with destruction not only by the traditional causes of decay, but also by changing social and economic conditions which aggravate the situation with even more formidable phenomena of damage or destruction…"

~The United Nations Educational, Scientific and Cultural

Organization's General Conference in Paris France, 1972

As explained in UNESCO's Paris conference, cultural and natural heritage is put in increasing danger as the world around us continues to advance and change. The World Heritage Centre explains that preserving cultural heritage is important, as "heritage is our legacy from the past, what we live with today, and what we pass on to future generations. Our cultural and natural heritage are both irreplaceable sources of life and inspiration", therefore it is important that efforts are taken to preserve our heritage from changing conditions (UNESCO World Heritage Centre, 2008). To counter the continuing decay of cultural heritage, several institutions and organizations are diligently working to maintain cultural roots and knowledge. The Hong Kong Museum of History is one such organization actively working to preserve the cultural heritage of some of Hong Kong's ethnic groups as part of their exhibit, the Hong Kong Story. For use in another section of this exhibit, the Educational Corner in Gallery 4: Folk Culture in Hong Kong, the museum is seeking new ways to engage children in cultural learning and group interaction (Cheung, 2008). An effective way to accomplish this is through interactive learning. By using interactive learning activities, Hong Kong history and cultural heritage education can be enhanced, as demonstrated by a study in a museum in Limerick, Ireland, where interactive activities increased learning in the museum (Ciolfi & Bannon, 2002).

As interactive activities are effective tools for learning and cultural heritage is very important to every society, this project addresses the question of how to utilize interactive activities in order to promote cultural education in Hong Kong. In order to investigate this question, an interactive activity room was designed, implemented, and evaluated to provide an enjoyable and educational environment to help children from ages 9 to 14 learn about four of the ethnic groups of Hong Kong (the Hakka, the Hoklo, the Punti and the Boat Dwellers) and regional festivals while encouraging group and family interaction.

Chapter 2: Background

2.1: Museums & Education:

In order to determine how to utilize interactive learning to promote cultural education at the Hong Kong Museum of History, it was important to understand museums and their educational role. Through an understanding of history museums specifically, their target audience, and museum exhibits, the interactive room was designed to increase cultural education based on successful past museum models and methods.

2.1.1: History Museums

As the interactive room was being implemented at a history museum, it was important to understand this type of museum as certain aspects are different between museums. Art museums are less interested in public education and are more interested in the "aesthetic component of objects and acts" rather than the specific history of the artist or piece (Burcaw, 1997, p. 76). In a direct contrast, science and history museums place educational value of an object above its aesthetic aspects. In history museums "objects must be collected to serve the purpose of public education" and not for their aesthetic value (Burcaw, 1997, p. 39). Therefore, when designing the contents of the interactive room, the focus was on the educational value rather than aesthetics.

Although both science museums and history museums stress public education, the two museums differ in that the goal of a history museum is to tell a story that is focused on a certain topic, whether it is a time, geographic location, or culture. Therefore a cohesive theme should prevail throughout the entirety of the museum where each successive exhibit needs to be able to

connect with the previous one in order to teach the visitor the museum's story. An exhibit's object must be "usable in teaching the visitor about life in the past" to continue the museum's story theme (Burcaw, 1997, p. 66). This strategy allows for better flow and unity between elements in the museum. Themes can also be utilized to create an overarching message for the museum visitor. An example of this is the interactive gallery of the Indianapolis Children's Museum which encouraged visitors to become "pathfinders" and utilize five clues: archaeological, written, visual, spoken, and personal history clues. "By engaging in various activities, visitors would, it was hoped, understand the message of the exhibition, which was [that] 'Clues in objects and the surrounding environment allow one to discover information about the past'" (Anderson, 1989, p. 164). This case study illustrates how each activity was used to create a central message to the museum visitor about the objects and theme of the exhibit. Based on these past findings, a temple and festival theme was created to continue the Hong Kong Story museum theme and this theme was integrated within all the room elements.

2.1.2: Museum Audience

 "The whole point of education is to transmit culture, and museums can play an increasingly important role in this process" (Edson & Dean, 1996, p. 57). As museums are great facilities to transmit cultural knowledge, the Hong Kong Museum of History is an incredibly important resource for the entire Hong Kong community, especially school groups.

Many schools choose to bring their students to the Hong Kong Museum of History. According to museum data, a typical weekday may have between eight to fourteen school groups (kindergarten to secondary) with a total up to 1,208 young students in attendance at the museum (see Appendix S). According to past research, the most educationally beneficial exhibits for school-aged children are exhibits involving experimentation, hands-on activities, and those

which allow free movement (Cohen, 1989).   The activities should also avoid overcomplicated instructions, requiring previous knowledge before visiting, many abstract components, and wording that requires a high level of reading comprehension as the participants are still young students (Cohen, 1989).   Also, past research has shown that exhibit activities that are interactive and group based receive the most attention from adolescent students as they are more group-oriented and less likely to participate in activities on their own (Thomas, 1994). Therefore, to best benefit the school audience of our target age range (9 to 14), the activities and computer games designed allow for free choice and movement, hands-on learning, and group interaction.

Although many children come to museums as part of a school group, studies in various international museums suggest that the largest percentage of child visitors are part of family groups (Wood, 1990). In one such study on museums in Florida, it was determined that 90% of visitors came in groups and that 68% of visitors were in family groups (Wood, 1990). In addition, it "…has been demonstrated over and over, [that] children learn best when their families are involved in their experience," therefore providing activities and displays that could involve the entire family is important for learning (Cohen, 1989, p. 74). To address this need group-oriented hands-on activities were implemented as "-the ability to physically interact with objects and to manipulate variables –provides something for everyone in the family" within the exhibit (Wood, 1990, p. 80).

2.1.3: Museum Exhibit Design

For all museum exhibits, the order and flow of the presented information is important. "…The order in which a visitor encounters information will affect his or her understanding," therefore it was important to consider the spatial arrangement of the exhibit elements and informational content when designing a museum exhibit (Falk, 1993, p. 117). According to

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museum learning expert Joseph Cornell, museum learning in an exhibit should follow his proposed "flow learning" method in four main steps: awaken enthusiasm, focus attention, direct experience, and share inspiration (Cassels, 1992). First the exhibit must stimulate and involve the visitor to excite them about the exhibit (Cassels, 1992). Making attractive exhibit elements is one example of how to grab the visitor's interest in an exhibit (Edson & Dean, 1996). Next the exhibit must focus the visitor's attention to the objects, pictures, or content that is the focus (Cassels, 1992). Then the experience must be directed in order to facilitate active learning (Cassels, 1992). This is often best accomplished through learner participation using interactive displays, videos, or hands-on activities (Cassels, 1992). Finally the exhibit needs to share the museum's mission by inspiring the museum's passion into the visitors (Cassels, 1992). Therefore, the interactive room exhibit was designed to follow the "flow learning" model by awakening the enthusiasm, focusing the attention, directing the learning experience, and inspiring passion of the museum visitor. To address these goals further, differences between each visitor's learning preferences were also considered.

2.2: Learning Styles

It was important to understand which learning styles are most effective to stimulate cultural learning in children before the design of the interactive activities in the room. Past research shows that catering to different learning styles improves learning (Felder, 1995). In addition, previous research has shown that there are a variety of different learning styles such as visual, auditory, hands-on (kinesthetic), and active writing/reading (Wehrwein, Lujan, & DiCarlo, 2007). Given the importance of utilizing multiple learning styles, the activities were designed to implement each of the four learning styles, with a focus on the hands-on style.

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2.2.1: Gender & Education

Research on learning styles has also indicated that gender plays an important role in determining preferred learning styles. Both genders have recently been shown to have different preferences for visual, auditory, kinesthetic, and written learning styles or "modes" (Wehrwein et al, 2007). In one study using student volunteers, researchers discovered that 87.5% of males preferred multiple modes of presentation, but only 45.8% of females preferred multiple modes (Wehrwein et al., 2007). Although only approximately half of females preferred multi-modal presentation of information, this percentage in combination with the male's higher percentage highly suggests that the activities should incorporate all modes of learning for the best effect (Wehrwein et al., 2007). In addition, the majority of educational psychologists support that "students learn more when information is presented in a variety of modes than when only a single mode is used" (Felder, 1995, p. 8). By using the multi-modal method, every learning style will be incorporated and therefore the highest percentage of children will benefit from improved cultural learning (Wehrwein et al., 2007).

2.2.2: Culture & Education

Beside gender difference, the museum's international audience differs in terms of cultural learning styles. Between American and Chinese culture, these differences stem from the two main philosophers who shaped the two cultures: Socrates and Confucius (Tweed & Lehman, 2002). Socrates encouraged individual learning for the individual's sake, to doubt accepted knowledge, and to better understand the truth. In contrast, Confucius supported very different ideas; supporting notions that learning was done for the community's sake, and to encourage behavioral reform. Socrates would support individual learning, but Confucius would support learning from the collective of already present scholars. For Confucian thinkers, "…learning is

not focused mainly on questioning, evaluating, and generating knowledge because truth is not found primarily in the self. Instead, truth and the associated good character traits are learned mainly from the collective," (Tweed & Lehman, 2002, p. 92). Therefore, Confucius based thinking encourages learning from the community for the community, whereas Socratic thinkers support individual learning through questioning for one's personal education. As these two differing philosophies are what shaped the two cultures' different styles of learning, the activities designed during this project took these differences into account in order to best promote cultural learning for a more Confucian-minded society (Tweed & Lehman, 2002).

To design activities which improve cultural learning, understanding the different educational styles used in Hong Kong in comparison to the US was also important. Education styles used in the US are different from those implemented by the Chinese. These differences are illustrated in the two education systems' purposes, methods of instruction, and focus of instruction as discussed by Professor Chan (1999) in her article "The Chinese Learner". Professor Chan believes that the purpose of Chinese education is to produce loyal and educated citizens and to preserve *past* cultural heritage (Chan, 1999). She also believes that the purpose of American education is to develop an individual's potential and to preserve *current* cultural heritage (Chan, 1999). These differences are due to the extreme gap in our historical timeline; Chinese history dates back thousands of years while US history dates back to less than three hundred years (Ebrey, 1996). By analyzing education's purpose, differences have been illustrated between focuses on the past versus present and the community versus individual.

Professor Chan (1999) has stated that Chinese learning is often referred to as passive learning because it places more importance on rote memorization of facts, rather than application of skills. American education focuses more on understanding relationships, increasing ability or

skills, and application of topics, rather than memorizing facts. The classroom is also more centered on the teacher in China, but more focused on the learner in the US. This further supports the idea that American education is more individual based than Chinese education, as well as introducing the idea that Chinese learning is more passive than American education. These educational differences, to improve the community or the individual, passive or active learning, and focus on past or present, were all important factors considered when designing the museum's activities to best promote cultural learning (Chan, 1999).

When designing the hands-on educational games, the features focused on the community and the past. As China and Chinese learning is very community based, less emphasis was placed on the individual during the games and friendly, group interaction was encouraged. Also, the activities focused on learning facts related to past culture, rather than connections to current cultural heritage. A quiz game was designed because factual quizzes were considered to be more effective in a Chinese cultural setting than a Western one as Chinese education utilizes rote memorization methods more predominantly over other methods (Chan, 1999). The educational games were designed to encourage the learning of facts, a better understanding of past cultural heritage, and a group or community feeling.

2.1.3: Hands-on Learning

Hong Kong Chinese greatly value concepts such as the community and family, therefore it was important to encourage group and family interaction. Hands-on learning activities have been demonstrated to encourage group interaction in other museums. At Hunt Museum in Limerick, several exhibits were implemented with the hope of increasing interest in the exhibit topics. In a fossil digging activity, "collaboration and discussion naturally occur among the children, even if each of them is provided with a specific area of the pit for digging" (Ciolfi &

Bannon, 2002, p. 3). This shows that even if the children are not working directly together, the hands-on activities encourage group interaction. Another study on interactive activities in science museums showed that "active participation" with the activities "increases the chance that social interaction during an outing will be successful." (Wood, 1990, p. 80) These studies illustrate that even if designing a group activity is not possible, simply using a hands-on activity will encourage group interaction in the designed interactive room.

Hands-on activities have been shown in past research to be particularly effective learning tools for the project's target age group, 9 to 14 years. In 1986, studies performed by Shymansky showed that "students in hands-on programs outperformed their traditional elementary school counterparts by 9 percentile points on a composite performance measure…" (Stohr-Hunt, 1996, p. 107). This finding was further demonstrated by another study performed in 1996, illustrating that students in a younger age group learn more from hands-on methods than from textual methods (Stohr-Hunt, 1996). This illustrates that hands-on learning is an effective learning style for the target age group specified for the project. Thus hands-on activities were implemented to enhance cultural education for the children ages 9 to 14.

2.3: Computer Games & Education

In addition to the creation of hands-on games, computer games were designed to help promote cultural education in Hong Kong. Computer games offer a new medium to reach the visitors in the interactive room and provide the specific learning styles favored by different visitors. As explained previously, a large percentage of people prefer using multiple styles when learning. The computer games offer a way to combine many different learning styles, such as visual, auditory, reading /writing, and hands-on, in a single game. For example graphics and

sound can accompany text to further enhance the learning experience. By providing computer games, a broader range of learning styles was used in order to reach more of the Education Corner visitors.

2.3.1: Computer Game Based Learning & Education

As technology advances, new opportunities arise in which educators can promote student interest in learning. One technological medium that has recently begun to be utilized for education is computer based games. Computer games offer a way to engage and motivate students so that they strive to learn. As computer games are a powerful tool that can be harnessed in order to promote education for children, educational computer games were utilized in the interactive room.

Computer games can be useful educational tools, despite the popular belief that computer games are used solely for entertainment purposes. Research shows that computer games are an excellent and safe medium for the teaching and practice of essential skills and abilities to today's generation of children (Prensky, 2001; Raessens & Goldstein, 2005). For example, some of these skills are: the ability to gather and process information and make decisions based on that information, the ability to learn from past experiences, and the ability to think creatively in order to solve a problem (Raessens & Goldstein, 2005).

In addition, research shows computer games are an effective learning tool for children ranging from 9 to 14 years of age (Ke, 2008; Papastergiou, 2008). In one study, participants who learned information through an interactive computer game showed greater retention of knowledge in a post-test than those who learned information through an online guide (Papastergiou, 2008). Thus, this research suggests that computer-game based learning is more effective than other forms of computer learning (e.g., computer tutorials). Based on this finding,

we decided to use computer-games as opposed to other computer activities in our Education

Corner.

2.3.2: Computer Games & History

For the interactive room, the creation of a history based digital game was desirable

because history is a subject that is hard for many children to find intriguing. One study

examined if introducing a history game based design would be beneficial to student learning

(Azan & Wong, 2008). In this study, 582 children from secondary schools were surveyed to

gather students' thoughts on learning history. They found that 79% of the students surveyed had

trouble learning the history material and that 44.5% of the students found the teaching media,

such as the textbooks, dry and boring (Azan & Wong, 2008). The study also surveyed the

students about their thoughts on digital gaming. The study found that 69.5% found that digital

gaming provides advantages from playing and 53.7% found digital gaming to be fun (Azan &

Wong, 2008). These results suggest that digital games about history may help students learn

about history in an easier and more entertaining way. Based on this, we designed computer

games that facilitated history learning

2.3.3 Computers & Museums

As the global community advances technologically, museums have also begun to use

more technological adaptations in their exhibits, including the growing use of interactive

computer exhibits. During the design and construction processes of the interactive computer

games it was important to take into consideration the previous findings of past museum research.

Past studies show that different computer game designs can benefit museum exhibits more than

others as an educational resource and a part of the exhibit.

The most effective computer exhibit design utilizes technology and museum content to inspire visitor involvement. Instead of using the computer as an "informational dump" to present a myriad of data to the visitor, a more interactive approach is the most beneficial (Serrell & Raphling, 1992). Effective methods require participants to actively think about exhibit information as they progress through the computer display. According to educational psychologist Chandler Screven, "programs [should] encourage visitors to seek out information and then apply it to solve a problem" (Serrell & Raphling, 1992, p. 137). Problem solving, while using museum information, is one of the best methods for museum computer education as it causes the visitor to view the information as more than a list of facts (Serrell & Raphling, 1992). Therefore, the computer games in the educational room were designed to encourage problem solving and interaction with the technology.

Although it is important to develop educational computer games to be fun and engaging, it is also important to consider exhibit functional ability and computer usability (Serrell & Raphling, 1992). The computer system itself should not take away from the encompassing exhibit or gallery; rather it should add to it (Serrell & Raphling, 1992). To accomplish this, the games should be kept short to prevent visitors from spending too much time with the games and less with the actual exhibit (Serrell & Raphling, 1992). Developing games with shorter play lengths will also increase the turnover rate, thus allowing more visitors to use the games (Serrell & Raphling, 1992). The games themselves should allow access to a main menu at all times in case a new visitor comes to the computer in the middle of a game (Serrell & Raphling, 1992). The games should also use the same language(s) applied to the surrounding informational displays to be consistent and understandable (Serrell & Raphling, 1992). All of these features

were considered for the design of the computer games in order to enhance visitor understanding and promote equal exploration of the entire exhibit.

2.4: Evaluation Methods

After designing and constructing the informational displays, hands-on activities, and computer games, it was important to evaluate them. Evaluating educational programs is important because it tells whether the program corresponds with the planned objectives (Edson & Dean, 1996).   Evaluations also measure the extent of information presented and serve as a guide for future programs of the same type (Edson & Dean, 1996). Additionally, for museums "evaluation can lead to educationally effective exhibits that create visitor satisfaction, favourable word-of-mouth publicity, and increased attendance" (Borun, 1989, p. 219). Evaluation is an essential process in preparing a successful, new addition to an exhibit, and was therefore important in determining how to improve the activities for permanent use.

When performing a formative evaluation (an evaluation used during the development period rather than after), museum experts find that it is important to first recognize the evaluation goals, audience, and what indicates reaching those goals (Borun, 1989). Evaluation objectives should include receiving evidence that the exhibit elements attract visitors, hold visitor attention, are used properly, are educational, and are enjoyed (Borun, 1989).   To accomplish these objectives, it is important to understand the intended audience and what is considered evidence for these. After audience, goals, and required evidence has been determined, evaluators may consider exact evaluation methods.

The evaluation process used for the informational displays, computer games, and activities in the interactive room most closely resembles the Harris Shettel (1973) model. This

model is a three-factor model "that includes audience demographics, ratios of actual time and required time spent, plus pre- and post- test data on visitor's knowledge and attitudes" (Serrell, 1993, p. 224). Museum studies expert Beverly Serrell further expands on the model by defining exhibition success by accomplishing three visitor behavior requirements. The first requirement is that the visitors move through the exhibition at a rate of less than 300 ft^2/min (Serrell, 1993). Recording visitor movement and time is important as "studies have shown that the amount of time spent is positively related to the frequency of behaviors that indicate contemplation, involvement and learning," which are all behaviors that the exhibit hopes to encourage (Serrell, 1993, p. 226). The next requirement is that visitors attend at least 51 percent of all the exhibition elements (Serrell, 1993). This requirement is based on the observation that "when more than half the visitors use more than half of the exhibition's elements, the exhibition environment is probably not overwhelming and contains an appropriate mix of modalities, such as reading, listening, watching, and touching" (Serrell, 1993, p. 226). The last requirement is to have visitors be able to correctly quote or recall specific facts, ideas, attitudes, or concepts related to the exhibition elements and the exhibition objectives (Serrell, 1993). Based on this model, an observational evaluation method was developed for the interactive room that focused on assessing attraction, attention, usability, and cultural learning.

In addition, participants were surveyed on their opinions to provide data on how the exhibit itself was experienced by visitors. If the majority of visitors answer with specifics that relate to the exhibit's educational goals, then the collected data would suggest that the exhibit accomplished its set goals (Serrell, 1993). Therefore, both observational and survey methods, were used to identify areas for improvement for the final interactive room design.

Chapter 3: Methodology

The goal of this project is to increase cultural education and group and family interaction through the use of interactive media. We utilized computer games, various hands-on activities, and informational displays in order to accomplish this goal. In order to do so we:

- Familiarized ourselves with the Hong Kong Museum of History's Gallery 4: Folk Culture in Hong Kong and the materials available for this project

- Evaluated existing activities in outside museums

- Designed/constructed informational displays to introduce new information in the Educational Corner.

- Designed/constructed interactive computer games

- Designed/constructed interactive hands-on games

- Implemented the prototypes

- Evaluated the prototypes using observational studies and written surveys

- Developed recommendations to revise the designs based on the collected data

3.1 Evaluated Existing Activities

In order to gain a better understanding of how to design and implement our activities we evaluated existing museum activities based on educational value, ease of use, group interaction, and enjoyment. We visited and evaluated the Hong Kong Museum of History's temporary exhibit titled "The French Revolutions" to get a sense of the types of activities already in use at the museum. We also visited and evaluated the Hong Kong Heritage Museum's Children's Discovery Gallery to gain a better understanding of designs for children's exhibits. The activities evaluated included both hands-on activities and computer games which were used by

children in a minimally supervised room.   It was important to view the children's interactions under minimal supervision as the Education Corner would not be supervised. All evaluations can be found in Appendix U.

3.2 Design & Construction of Informational Displays

To educate the museum visitors about Hong Kong culture, we provided new information in the Education Corner in the form of informational displays. To fit the temple theme of the room and to address the desire of museum curators to increase the amount of information on important festivals, the informational displays contain information linked to Chinese festivals practiced in Hong Kong. Based on the research performed in the Hong Kong Museum of History's library and the importance of each festival to Hong Kong culture, we designed informational displays of the following festivals and practices (see Appendix A for the cited festival information before translation and sponsor editing):

a. **The Lunar New Year**

The Lunar New Year takes place on the 1st day of the 1st lunar month and is one of the most important Chinese festivals in Hong Kong. The festival signifies a fresh start and new fortune for the coming year. It is a time to spend with family, as well as to pay respect to the gods and the family's ancestors (see Appendix B for final display).

b. **The Mid-Autumn Festival**

The Mid-Autumn festival takes place on the 15th day of the 8th lunar month. This festival celebrates both the collected harvest and the moon. Moon cakes are a popular

treat to eat during the Mid-Autumn festival and are often exchanged between friends and family members. A lantern parade also takes place with lanterns crafted to look like objects relating to nature and agriculture (see Appendix C for final display).

c. The Hungry Ghost Festival

The Hungry Ghost Festival occurs during the 7th lunar month. It is traditionally believed that during the 7th lunar month the gates to the underworld are opened and ghosts are allowed to roam freely. In order to appease vengeful spirits, offerings may be left out and later burned, and operas are performed to entertain the ghosts (see Appendix C for final display).

d. The Dragon Boat Festival

The Dragon Boat Festival happens on the 5th day of the 5th lunar month in honor of the famous poet Qu Yuan who died by drowning in a river. In memory of Qu Yuan the villagers near the river started the dragon boat festival. Now villagers throw rice offerings into the river and organize dragon boat races on this day (see Appendix D for final display).

e. The Tin Hau Festival

The Tin Hau Festival occurs during the 23rd day of the 3rd lunar month and is a celebration of the deity's birthday. Tin Hau is believed to be a deity of the sea, so this festival is particularly important to the Boat Dwellers since they seek protection on the sea (see Appendix D for final display).

f. Kau Cim Fortune Telling

Kau Cim, or the fortune stick method, takes place at a temple and can be seen being practised during several festivals, especially at Lunar New Year. The answers from the predicted fortunes only concern the immediate future and last for one lunar year, starting from the first day of the Lunar New Year (see Appendix E for final display).

g. Spring Scrolls

The night before the Lunar New Year people decorate their homes with pieces of red paper with good luck phrases written on them. A common phrase that is hung above the central door of the house is "May all your comings and goings be peaceful". These phrases are thought to bring luck to the house in the coming year (see Appendix F for final display).

h. Door Gods

The Door Gods are paintings of two famous generals that are placed on either side of a doorway to ward off evil spirits (see Appendix F for final display).

The text presented on the informational displays was translated into both English and Traditional Chinese. The displays also contain pictures that depict the festivals described. All pictures used were obtained from the museum's archives in order to prevent any copyright infringement. The dimensions of the displays were 61cm wide by 91.5cm tall and the displays were constructed of photo paper mounted on foam board. The displays were mounted on the wall with an adhesive near each table that housed the corresponding activity. Refer to Appendix V to see a floor plan of the Education Corner.

3.3 Design & Construction of Computer Games

The computer provided by the Hong Kong Museum of History is a 19" touch screen LCD that runs Windows XP Chinese. The keyboard and mouse were not accessible to the players, so the games followed a touch screen-oriented design. All of the computer games were made with Adobe Flash© (see Appendix T for Actionscript) and any illustrations used were created using the programs Photoshop CS4© or Paint.net©.

Past research has shown that males and females prefer different learning styles so we accounted for these differences when designing the games (Wehrwein et al., 2007). Research also shows that one aspect of Chinese culture is the importance of group interaction and the focus on a community rather than the individual, therefore this research was also considered during the designs (Tweed & Lehman, 2002).

The games were designed to be suitable for visitors aged 9 to14 years old. The games were also designed to last only a short time to prevent overcrowding and to increase the potential number of players. The computer games are selectable from a main menu screen, allowing for visitors to choose between each of the short games. For each game screen there is a button that allows the player to return to the main menu. This feature was incorporated for instances when a player might leave a game half finished and a new player would need to be able to travel back to the main menu and begin a new game. After considering the above requirements and available resources, we designed the following games:

a. Salted Fish Game

Even though salted fish was an important component to the lifestyle of the Boat Dwellers, as a way to preserve their food stores and earn an income, the process of making salted fish was not heavily detailed in Gallery 4. Thus we designed a computer

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game that provided a visual and hands-on learning approach to teach the player about the process of making salted fish. In the game, each screen takes the player through each step required for making salted fish. Since past research shows that children have different learning styles and process visual and verbal information differently, the game was designed to implement both graphics (visual components) and written text (verbal components) in order to enhance learning (Wehrwein et al., 2007). In addition, the game was designed to be played in less than five minutes to encourage visitors to experience the rest of the exhibits and prevent congestion around the computer terminal (see Appendix G for game script).

b.   What Belongs?

Through analyzing data provided by the museum, we found that most school groups spend less than 10 minutes per gallery, and may not have the opportunity to view the entire gallery. In an attempt to counteract this problem, we designed a game to condense information about important objects in Gallery 4. In this game, players first view a multitude of objects belonging to the entire museum. Then the player begins an adventure where they need to identify only the objects that belong to Gallery 4. Once the player selects an object, a text bubble appears and tells them whether the object selected belongs to Gallery 4 or not. If the object belongs to Gallery 4, the player is informed about the object and its importance. However, if the object does not belong, the player is only told that the object does not belong. Since past research shows that scoring systems can lead to increases in learning, we implemented a scoring system in this game (Garris, Ahlers, & Driskkell, 2002). For every correct selection the player gains ten points and for every incorrect selection the player loses ten points. In addition, the game was

designed to be played in less than five minutes to encourage visitors to experience the

rest of the exhibits and prevent congestion around the computer terminal (see Appendix

H for game script).

c. Quiz Game

In order to test the player's knowledge of traditional festivals presented

throughout the Education Corner, we designed a short quiz game. In the game, players

view one question at a time, and are presented with four possible answer choices. The

players are instructed to select the choice that best answers the question, and are only able

to select one choice at a time. After making their selection, the player is informed

whether their answer is correct. If they chose the correct answer, they see an explanation

as to why the answer was correct. If the player selected the wrong answer, they have

another chance to select the right answer. No player can advance to the next question

until a correct answer has been chosen. Since past research shows that scoring systems

can lead to increases in learning, we implemented a scoring system in this game (Garris,

Ahlers, & Driskkell, 2002). If the players select a correct answer, they earn 10 points;

however, if they select an incorrect answer, they lose 10 points for each incorrect choice.

In addition, the quiz game had nine questions so it could be played in less than five

minutes to encourage visitors to experience the rest of the exhibits and prevent

congestion around the computer terminal (see Appendix I for game script).

3.4 Design & Construction of Hands-on Activities

The Education Corner contains four square tables measuring 98cm by 98cm, as well as

space in the back of the room to accommodate another, smaller table. The games played at the

tables can accommodate a maximum of eight people for each game. In order to prevent

congestion, the games were designed to only last for a short time and involve at most four

players. In addition, the games were designed to be played without museum staff supervision.

As with the computer game design, we took into account the cultural background and gender of

our potential players. After considering all of the requirements and available resources, we

decided on the following game designs:

a. Culture Board Game

Since Gallery 4 presents detailed information on four different ethnic groups of

Hong Kong (the Boat Dwellers, the Hoklo people, the Punti people and the Hakka

people), we designed a board game to highlight important aspects of the lives and culture

of each of these groups. To play the game, players roll a die to advance forward on the

board. Players land on different spaces that provide them with culturally themed

instructions (e.g., You had to take shelter in a walled Punti village for the night to be safe

from bandits. Lose 1 turn.). The board also has illustrations with descriptions to provide

additional cultural information. The overall structure, playing pieces, and size of the

board game were based off a board game already used in the museum in "The French

Revolutions Exhibit". The instructions, spaces, and picture descriptions were written in

both English and traditional Chinese and the game is meant to be played by two to four

players (see Appendix J for game script).

b. Lucky Papers and Door God Coloring Activities

Since past research shows that injecting creative tasks in the learning process

facilitates learning; we aimed to design activities to encourage creativity (Roschelle, Pea,

Hoadley, Gordin, & Means, 2000).   To do so, we designed one hands-on activity that allowed visitors to learn more about the lucky papers used during the Lunar New Year celebration, by providing them with the opportunity to create their own. Visitors are provided with instructions, including a key with some examples of lucky characters and phrases, such as財源廣進 or "Wealth." They are then provided with small slips of red paper and pens so that they can create their own lucky papers.

In addition, we designed another hands-on activity that allowed visitors, especially small children, to learn about the Door Gods used during the Lunar New Year celebration, by providing them with the opportunity to color their own. In the activity, the visitors are provided with black and white outlines of the Door Gods to color in with the provided crayons (see Appendices K and L for activity scripts).

c.   Fortune Telling

In order to teach visitors more about fortune telling rituals, we designed a hands-on activity that allowed the visitor to experience a simulation of the *Kau Cim* fortune telling method. A sub-goal of this activity was to encourage group interaction. In this activity, a visitor shakes a container until a stick passes through the slit; however, the activity was designed such that only one stick can pass through at a time. A number was written on each of twenty eight sticks, and the visitor takes note of the number written on the protruding stick. The visitor then looks up the corresponding fortune in the book located at the station (see Appendix M for game script).

3.5 Evaluation

After all of the activities (i.e., the computer games, and hands-on activities) and displays were implemented in the museum's Education Corner, we assessed the visual appeal, ease of use, level of interaction, level of engagement, level of fun, and amount of knowledge gained.

3.5.1 Surveys

Participants

Evaluation Surveys. A total of 108 (31 male, 61 female, and 16 did not respond) visitors to the museum participated in taking one of the surveys provided. A total of 25 (3 male, 18 female, 4 did not respond) visitors participated in the informational displays survey, 23 (12 male, 10 females, 1 did not respond) visitors participated in the computer games survey, and 60 (16 male, 33 females, 11 did not respond) visitors participated in the hands-on survey. In addition, participants ranged in age (2 were 6-8 years, 46 were 9-14 year, 31 were 15-20 year, 8 were 21-30 year, 1 was 31+ and 20 did not respond) (see Appendix N for surveys) .

Learning Assessment. A total of 75 (23 male, 42 female and 10 did not respond) museum visitors participated in the survey to judge learning amount. Of these visitors 15 took the survey before encountering the Education Corner and 57 took the survey after encountering the Education Corner (see Appendix O for survey).

Design of Surveys

Evaluation Surveys. In order to assess the visual appeal, ease of use, level of fun, and perceptions of the amount of knowledge gained, we surveyed visitors of the Education Corner. We created separate surveys for each component (i.e., the computer games, hands-on activities, and informational displays) of the Education Corner. Using a 5-point Likert-type scale (1 = Not

At All; 5 = Very Much), participants indicated: 1) the extent to which they liked the graphics, 2) the level of the ease of use, 3) the level of enjoyment, 4) the amount that was learned. In addition, demographic information (e.g., gender and age) was collected. Participants were also allowed to write comments on how to improve the activities and displays in the Education Corner. Any comments that were written in Traditional Chinese were translated by the museum staff. Each survey was written in both English and Traditional Chinese so that they could be read by the majority of the visitors to the Education Corner (see Appendix N for each survey).

Learning Assessment. In order to evaluate the amount of knowledge gained from their time in the Education Corner, we created a survey to assess learning. The survey addressed two criteria: 1) the current amount of knowledge the visitor had of the festivals displayed in the Education Corner and 2) how familiar the visitor was with the festival prior to viewing the exhibits. To determine the amount of knowledge the visitor had concerning the festivals, a four question quiz was created. To assess prior knowledge of the festivals, participants indicated how familiar they were with each festival prior to viewing the exhibits on a 5-point Likert-type scale (1 = Not At All; 5 = Very Much). In addition, demographic information (e.g., gender and age) was collected. We also indicated whether the quiz was taken before interacting with the Education Corner or after interacting with the Education Corner (See Appendix O for the learning assessment survey).

Procedure for Surveys

The procedure for both the evaluation survey and the learning assessment was identical and run at the same time. Before entering the Education Corner, a sign informed visitors about the study, and all visitors were greeted by a Cantonese-speaking researcher (see Appendix Q for signs used). Visitors were able to participate in two types of surveys, one to evaluate the

effectiveness of activities within the room, and one to measure the knowledge participants had about the festivals. As the visitors exited the room all were asked to complete short surveys after interacting with the different types of activities and instructed to only answer questions concerning the games they played. In addition, some were asked to take a short quiz prior to interacting with the activities (to assess prior knowledge), and others were asked to take the short quiz immediately after interacting with the exhibits (to assess learned knowledge). After handing in the quiz, the researchers indicated whether the quiz had been taken before or after interacting with the Education Corner. After completing the surveys and quizzes, participants were thanked and given a complimentary souvenir.

3.5.2 Observational Study

Participants

A total 801 visitors were observed during the observational study (see Appendix P for observation sheets).

Design of Observational Study

In order to assess the improper use of the games, level of interaction, and level of engagement, we conducted a naturalistic observation of the visitors of the Education Corner. The observational study used was based off of the Harris Shettel (1973) model (Serrell, 1993). For these observations, we focused on individual components (i.e., computer games, hands-on activities, informational displays, and the overall room) of the Education Corner.

Computer Game Observation. For the computer games, we observed three criteria: a) whether the player used the game improperly, b) whether the player engaged in social interaction while playing the games, and c) how long the player spent playing each game for the first time (or their level of engagement). The game was deemed to be used improperly if the player got

stuck at a point in the game and could not advance, or if the player disregarded the instructions of the game and began to select the buttons randomly. Social interaction was determined by whether the player engaged in conversation with another visitor while playing the game, and we also recorded the number of adult-child interactions. To get a sense of the level of engagement, the total time a visitor played each game for the first time was measured using a watch and recorded. The observations were separated into five time ranges; less than 30 seconds, between 30 seconds and 1 minute, between 1 minute and 2 minutes, between 2 minutes and 3 minutes, and over 3 minutes. It was also noted whether the participant played the game multiple times.

Hands-on Activities. The observations for these activities were similar to those for the computer games. The only difference was in the time intervals used for the Door Gods/Spring Scrolls and board game activities. The five separate time ranges for these activities were; less than 1 minute, between 1 to 4 minutes, between 4 to 7 minutes, between 7 to 10 minutes, and greater than 10 minutes.

Overall Room. For the overall room we observed three criteria: a) the amount of time the visitors spent in the Education Corner, b) whether any materials used in the Education Corner were damaged during game play, and c) whether the visitors were attracted to the games located in the Education Corner. To get a sense of the level of engagement, the total time a visitor spent in the Education Corner was measured using a watch and recorded. The observations were separated into five time ranges; less than 1 minute, between 1 minute and 3 minutes, between 3 minutes and 10 minutes, between 10 minutes and 20 minutes, and greater than 20 minutes. We would determine whether the materials were damaged at the end of each two hour observation period and recorded the measure of damage and what was damaged. We would mark the games

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as attracting visitors by whether a visitor moved in front of the games and viewed them for at least 5 seconds.

Informational Displays. For the informational displays we observed three criteria: a) whether the informational displays attracted the visitors in the Education Corner, b) whether the informational displays were read by the visitors, and c) whether the visitors engaged in social interaction while viewing the posters. We would mark the informational displays as attracting the visitor by whether the visitor moved in front of the display to view it. We determined if the visitor read the informational displays by observing them viewing the displays for greater than 50 seconds. Social interaction was determined by whether the visitor engaged in conversation with another visitor while viewing the displays.

Procedure for Observational Study

In order to evaluate the criteria stated above, three researchers observed the visitors of the education room twice a day for two hour intervals (10:00 A.M. to 12:00 P.M. and 2:00 P.M. to 4:00 P.M.). The researchers sat at the table located at the front right in order to avoid undue interaction with the visitors being observed. Each researcher was assigned a specific component of the Education Corner (i.e., computer games, hands-on activities, informational displays, and the overall room) and recorded observations pertinent to only that component. Since there were three observers at one time, one observer was responsible for computer games, one for hands-on activities, and one for both the informational displays and the overall room. To help reduce observer bias and to increase reliability of the observations, each researcher was assigned to new components for every time interval (e.g., computer games at time interval 1 and hands-on at time interval 2). While we did not have multiple observers viewing the same component at one time, we did have multiple observers viewing the same component over the course of the study.

Chapter 4: Results & Analysis

4.1 Observational Analysis:

4.1.1 Entire Room:

From the observations conducted, we assessed how attracted visitors were to the room and whether they stayed in the room over 1 minute. Over a two hour interval, the average number of persons entering the room was 100.125 (SD = 52.62). From this total, approximately 77 (SD = 50.57) visitors on average (76.53%) remained in the room over 1 minute during this time interval. Therefore 76.53% of the visitors moved through the room at a rate less than 300 ft^2/min, which, according to researched museum evaluation standards, indicates that 76.53% of the room visitors were considering the information, learning, and involved within an exhibit (Serrell, 1993). This observational data shows that the Education Corner was a successful museum exhibit in terms of retaining attracted visitors.

The room was designed to encourage visitors to spend between 1 to 20 minutes in the room because 1 minute was too short a period to experience the room and staying over 20 minutes would indicate that the room was distracting the visitors from viewing the rest of the gallery. The amount of time each individual spent in the interactive room was also recorded, and it was determined that the majority of visitors stayed in the room under 20 minutes. Between 1 to 20 minutes, 70.91% of all visitors were in the room, indicating that the interactive exhibit was successful in keeping visitor attention while still encouraging people to view other parts of the gallery.

4.1.2 Displays:

From the observations conducted, we assessed how attracted visitors were to the displays, how likely people were to read the displays, and how much the displays encouraged social

interaction. As seen in Table 1, very few people looked at the displays and there were some days

when individual displays did not attract any attention.   Each display attracted a relatively equal

number of viewers on average. Also, each display had an almost equal number of its attracted

visitors read them as seen in Table 2. All the displays attracted 12.72% of the people in the

room, but of that small percentage of people 73.08% read them. This analysis illustrates that

very few people in the room were attracted by the displays, but those who were attracted

typically found them interesting.

Table 1: Visitor Attraction to Displays

Observer	Date	Time	Door Gods/Spring Scrolls	Lunar New Year	Fortune Telling	Dragon Boat/Tin Hau	Hungry Ghost/Mid-Autumn	Total
Shannon	Wednesday	PM	N/A*	N/A	N/A	N/A	N/A	N/A
Chase	Thursday	AM	2	1	1	1	3	8
Chase	Thursday	PM	3	0	1	1	1	6
Ben	Friday	AM	1	2	4	3	2	12
Ben	Friday	PM	6	2	0	3	5	16
Chase	Saturday	AM	0	0	1	0	0	1
Chase	Monday	AM	2	0	1	1	2	6
Shannon	Monday	PM	3	4	2	4	3	16
Shannon & Ben	Wednesday	AM	2	3	3	2	3	13
	Sum:		19	12	13	15	19	78
	Mean:		2.38	1.50	1.63	1.88	2.38	9.75
	Standard Deviation:		1.77	1.51	1.30	1.36	1.51	5.37
	Percentage Attracted:		3.10	1.96	2.12	2.45	3.10	12.72

*N/A, The display's observational survey at that time did ask for the measured data. The survey was then altered to include these measurements based on general observations made during the first week and used for all evaluation intervals after.

Table 2: Visitors Who Read Displays

Observer	Date	Time	Door Gods/Spring Scrolls	Lunar New Year	Fortune Telling	Dragon Boat/Tin Hau	Hungry Ghost/Mid-Autumn	Total
Shannon	Wednesday	PM	N/A*	N/A	N/A	N/A	N/A	N/A
Chase	Thursday	AM	2	0	0	1	0	3
Chase	Thursday	PM	1	1	1	1	1	5
Ben	Friday	AM	3	3	4	3	3	16
Ben	Friday	PM	3	2	0	3	3	11
Chase	Saturday	AM	0	0	0	0	0	0
Chase	Monday	AM	2	0	1	1	0	4
Shannon	Monday	PM	1	1	1	2	1	6
Shannon & Ben	Wednesday	AM	2	3	3	2	2	12
	Sum:		14	10	10	13	10	57
	Mean:		1.75	1.25	1.25	1.625	1.25	7.125
	Standard Deviation:		1.04	1.28	1.49	1.06	1.28	5.36
	Percentage Read:		2.28	1.63	1.63	2.12	1.63	9.30

*N/A, The display's observational survey at that time did ask for the measured data. The survey was then altered to include these measurements based on general observations made during the first week and used for all evaluation intervals after.

The observational survey also recorded instances when the displays facilitated social interaction. The collected data showed that each display facilitated little to no recorded social interaction. Of the visitors who read the displays, only 8.77% were observed engaging in social

interaction at the same time. The Lunar New Year and Dragon Boat/Tin Hau displays were not

seen to have facilitated any interactions at all. This observational data indicated that the

informational displays did not engage visitors in social interactions and interactive learning.

4.1.3 Computers Games:

From the observations conducted, we assessed how attracted visitors were to the

computer games, how long the games took to play, how many people understood the directions,

and how much the computer games encouraged social interaction. Of visitors who stayed in the

room for over 1 minute, 36.98% were attracted to the computer games. As illustrated in Figure

1, the Salted Fish game was played far more often by individuals than either of the two other

games, indicating that it was the most popular and enjoyable computer game.

Total People: 157

Quiz; 24%, 38
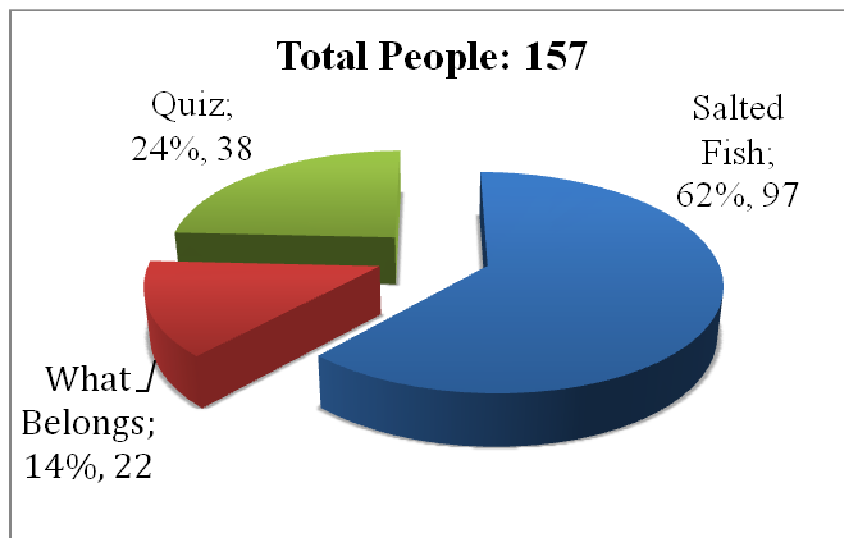
Salted Fish; 62%, 97

What Belongs; 14%, 22

Figure 1, Number of Recorded Individuals who played the Computer Games

The observation survey also recorded game play time to determine whether the computer

games stayed in the target game time of between 30 seconds and 3 minutes. Game times that

lasted less than 30 seconds were too short for players to process the information and learn from

the games. Computer games that lasted over 3 minutes would increase overcrowding and would

discourage players from playing multiple games. The majority of all of the recorded play times

stayed in the desired time frame with 88.66% of the Salted Fish, 81.82% of the What Belongs,

and 86.84% of the Quiz play times being greater than 30 seconds and less than 3 minutes long.

This data illustrates that the computer game play length for each game was measured to be

acceptable.

The observational study measured the frequency at which visitors misunderstood the

directions and/or played the games improperly. The counts for improper use varied for each

computer game, but overall only 4.46% of computer game players misunderstood instructions or

had trouble using the games. The Quiz game in particular was easy for observed players to

understand as it was never observed to cause any misunderstanding. This may be due to the

game following a familiar scheme that most visiting audiences can understand. The What

Belongs game was used incorrectly the most often with 13.64% of all players using the game

improperly. The majority of these observed situations were when the players interpreted the goal

of the game to be clicking on every object rather than just clicking objects belonging to Gallery

4. Only 4.12% of Salted Fish game participants were confused by directions. These situations

were typically observed with older players who did not understand where to click. Overall, the

computer games were fairly understandable and useable by the majority of players.

Despite the computer games restricting game play to only one player, a large number of

social interactions were recorded between players and observers. During an average computer

game, approximately 2.09 people engaged in social interaction around the game. Among the

different games, the Salted Fish game had the greatest average number of people (2.29)

participate in social interactions when compared to the What Belongs game (1.59 average

people) and the Quiz game (1.87 average people). This data indicates that the computer games encouraged social interaction and that the Salted Fish game encouraged slightly more interaction than the others.

4.1.4 Hands-on Activities

Using the observation survey data, we analyzed how many visitors were attracted to and played the hands-on activities, how long the activities took to play, how many people understood the directions, and how much the computer games encouraged social interaction. The majority of the visitors who came to the Education Corner participated in at least one of the hands-on activities. Among observed visitors who stayed longer than 1 minute, 52.2% participated in the Door Gods/Spring Scrolls activity, 21.46% played the Board Game, and 16.82% used the Fortune Telling game. However, higher percentages of these visitors were attracted to the Door Gods/Spring Scrolls, Board game, and Fortune telling game as seen in Figure 2. The percent of attraction was very high do to the observation that individuals often interacted with the players even though they were not actively participating in the game. These findings indicated that the hands-on activities were very popular, even by those not actively participating. The Door Gods/Spring Scrolls activity was very popular in particular. The observational study also recorded the amount of time it took for each individual to participate in an activity and this analyzed data determined that 20% of the Door Gods/Spring Scrolls participants played for longer than 10 minutes.   This suggests that the Door Gods/Spring Scrolls activity was so popular that it kept 20% of participants playing past the desired time frame. Due to this, the Door Gods/Spring Scrolls activity may have discouraged visitors from experiencing more of the exhibit as they spent too much time on the one activity.

Total People: 1066

Fortune Telling; 18%, 190

Board Game; 33%, 354

Door Gods/ Spring Scrolls; 49%, 522
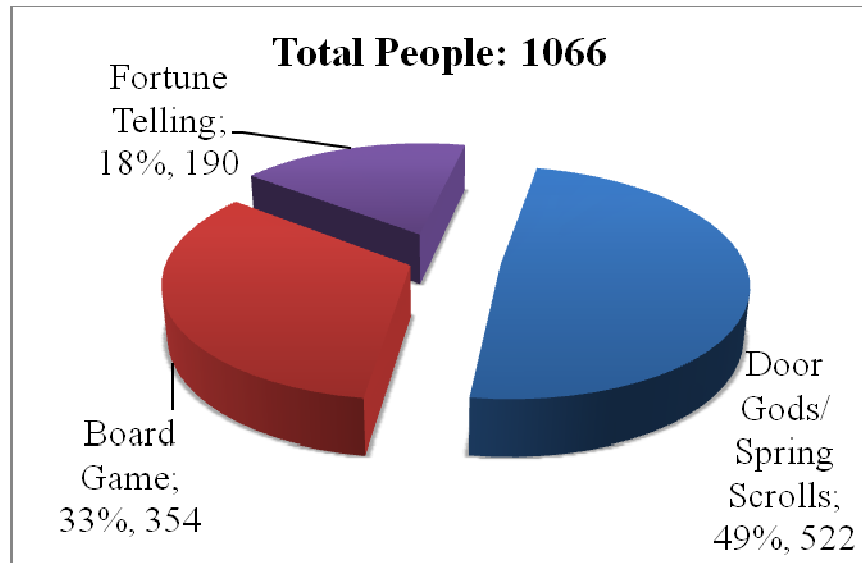
Figure 2, Attraction to the Hands-on Activities

The observations recorded how many time participants did not follow activity directions to determine how easy and understandable the game was to use. Analyzed data determined that 11.49% of Board Game and 12.93% of Fortune Telling game participants misunderstood the directions/used the game incorrectly. The Door Gods/Spring Scrolls activity, however, had no recorded situations where the directions were misunderstood. These findings indicate that the Door Gods/Spring Scrolls had better directions or were simply an easier activity to understand than the other two activities.

Social interaction and activity play length were also recorded during observations to determine whether the games encouraged interaction. The hands-on games had high recorded levels of social interaction as illustrated in Figure 3. The Door Gods/Spring Scrolls activity in particular was responsible for the majority of social interaction in the room. This is mostly due to the Door Gods/Spring Scrolls activity being the most popular. The collected data indicated

that the hands-on games encouraged social interaction, with the Door Gods/Spring Scrolls activity having the highest levels.
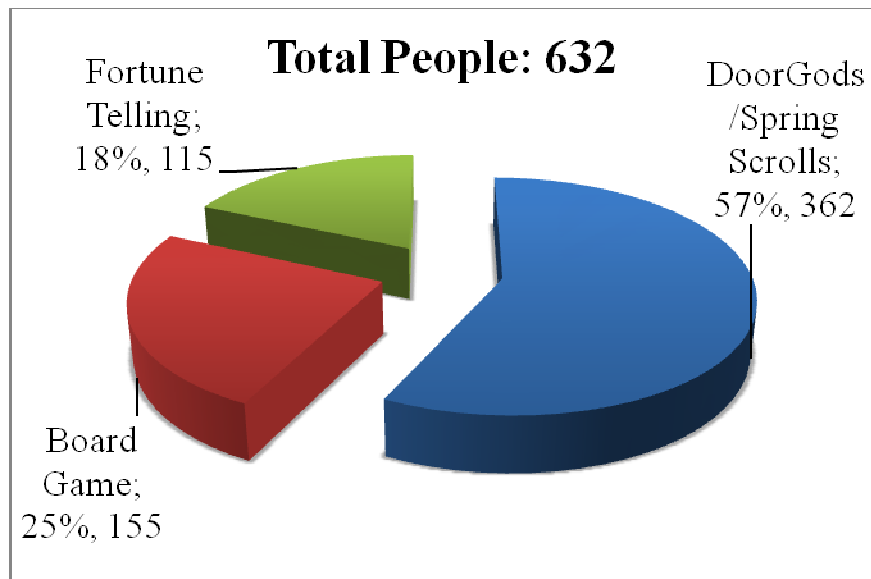
4.2 Survey Analysis

In order to determine the effectiveness of each activity (computer games and hands-on activities) and displays in the areas of a) educational content and b) enjoyment, we determined the average visitor rating. We also compared the rating of each activity and display collected from everyone with the rating of each activity and display from the age range of 9 to 14 years old. In addition, we determined if there was a correlation between the educational content of the activity or display and the enjoyment the visitor perceived. Because we wanted to assess the qualities of each game individually, we analyzed the results based on each game.

4.2.1: Hands-On Games

Board Game.

Overall we found that the board game was rated a success in the areas of learning ($M =$ 4.04, $SD = .68$) and enjoyment ($M = 3.89$, $SD = .96$). We also investigated whether the reported learning from the board game was related to the perceived enjoyment of the game; however, we found no correlation between these two variables, r = .29, p = .16. Therefore we determined that learning was not related to the perceived enjoyment of the board game.

Age Differences. Since the activities were designed for visitors from the ages of 9 to 14 years old, we wanted to see if the age of the participant influenced how much they reported learning and enjoying the board game. To see if the participant's age influenced how much they reported learning from the board game and the reported level of enjoyment, we conducted separate one-way ANOVAs. Since only one participant was between 6 to 8 years old, we excluded this participant from the analyses. The results show that there was no significant difference in the 9 to 14 year olds ($M = 4.25$, $SD = .71$) as compared to everyone else ($M = 3.90$, $SD = .74$), $F(1, 16) = 1.04$, $p = .32$ in the perceived amount of knowledge gained. The results also show that there was a significant difference in the 9 to 14 year olds ($M = 5.00$, $SD = 0$) as compared to everyone else ($M = 3.70$, $SD = .95$), $F(1, 16) = 14.84$, $p = .001$ in the amount of reported enjoyment. Based on our data, we concluded that the participants' age influences how much they reported enjoying the board game but not how much they learned. This finding suggests that the designed board game did target our 9 to14 age group.

Door Gods.

Overall we found that the Door Gods activity was rated a success in the areas of learning ($M = 3.89$, $SD = .96$) and enjoyment ($M = 4.12$, $SD = 1$). We investigated whether the reported

learning from the activity was related to the perceived enjoyment of the Door Gods activity and found a correlation between these two variables, r = .55, p = .02. Therefore we determined that learning was related to the perceived enjoyment of the Door Gods activity.

Age Differences. Since the activities were designed for visitors from the ages of 9 to 14 years old, we wanted to see if the age of the participant influenced how much they reported learning and enjoying the Door Gods activity. To see if the participant's age influenced how much they reported learning from the Door Gods activity and the reported level of enjoyment, we conducted separate one-way ANOVAs. Since only one participant was between 6 to 8 years old, we excluded this participant from the analyses. The results show that there was no significant difference in the 9 to 14 year olds ($M = 4.33$, $SD = .50$) as compared to everyone else ($M = 3.60$, $SD = 1.14$), $F(1, 12) = 2.88$, $p = .12$ in the perceived amount of knowledge gained. The results also show that there was a significant difference in the 9 to 14 year olds ($M = 4.75$, $SD = .46$) as compared to everyone else ($M = 3.40$, $SD = 1.14$), $F(1, 11) = 9.21$, $p = .011$ in the amount of reported enjoyment. Based on our data, we concluded that the participants' age influences how much they reported enjoying the Door Gods activity but not how much they learned. This finding suggests that the designed board game did target our 9 to14 age group.

Spring Scrolls.

Overall we found that the spring scrolls activity was rated a success in the areas of learning ($M = 3.89$, $SD = 1.02$) and enjoyment ($M = 4.41$, $SD = .90$). We investigated whether the reported learning from the activity was related to the perceived enjoyment of the spring scrolls activity and found a correlation between these two variables, r = .45, p = .002. Therefore we determined that learning was related to the perceived enjoyment of the spring scrolls activity.

Age Differences. Since the activities were designed for visitors from the ages of 9 to 14 years old, we wanted to see if the age of the participant influenced how much they reported learning and enjoying the spring scrolls activity. To see if the participant's age influenced how much they reported learning from the spring scrolls activity and the reported level of enjoyment, we conducted separate one-way ANOVAs. Since only one participant was between 6 to 8 years old, we excluded this participant from the analyses. The results show that there was no significant difference in the 9 to 14 year olds ($M = 3.9$, $SD = .91$) and everyone else ($M = 3.82$, $SD = 1.08$), $F(1, 29) = .05$, $p = .82$ in the perceived amount of knowledge gained. The results also show that there was no significant difference in the 9 to 14 year olds ($M = 4.35$, $SD = .81$) as compared to everyone else ($M = 4.27$, $SD = .90$), $F(1, 29) = .06$, $p = .81$ in the amount of reported enjoyment. Based on our data, we concluded that the participants' age influences neither how much they reported enjoying the spring scrolls activity nor how much they learned.

Fortune Telling.

Overall we found that the fortune telling game was rated a success in the areas of learning ($M = 3.90$, $SD = 1$) and enjoyment ($M = 4.43$, $SD = .9$). We investigated whether the reported learning from the game was related to the perceived enjoyment of the fortune telling game; however we found no correlation between these two variables, $r = .28$, $p = .13$. Therefore we determined that learning was not related to the perceived enjoyment of the fortune telling game.

Age Differences. Since the activities were designed for visitors from the ages of 9 to 14 years old, we wanted to see if the age of the participant influenced how much they reported learning and enjoying the fortune telling game. To see if the participant's age influenced how much they reported learning from the fortune telling game and the reported level of enjoyment, we conducted separate one-way ANOVAs. Since only one participant was between 6 to 8 years

old, we excluded this participant from the analyses. The results show that there was no

significant difference in the 9 to 14 year olds (M = 4.40, SD = .52) and everyone else (M = 3.7,

SD = 1.078), $F(1, 24)$ = 3.8, p = .06 in the perceived amount of knowledge gained. The results

also show that there was no significant difference in the 9 to 14 year olds (M = 4.50, SD = .85) as

compared to everyone else (M = 4.50, SD = .516), $F(1, 24)$ = 0, p = 1 in the amount of reported

enjoyment. Based on our data, we concluded that the participants' age influences neither how

much they reported enjoying the fortune telling game nor how much they learned.

4.2.2: Computer games

What Belongs.

Overall we found that the What Belongs game was rated a success in the areas of learning

(M = 4.09, SD = 1.14) and enjoyment (M = 3.82, SD = 1.17). We investigated whether the

reported learning from the game was related to the perceived enjoyment of the What Belongs

game and found a correlation between these two variables, r = .92, p = .0. Therefore we

determined that learning was related to the perceived enjoyment of the What Belongs game.

Age Differences. Since the activities were designed for visitors from the ages of 9 to 14

years old, we wanted to see if the age of the participant influenced how much they reported

learning and enjoying the What Belongs game. To see if the participant's age influenced how

much they reported learning from the What Belongs game and the reported level of enjoyment,

we conducted separate one-way ANOVAs. The results show that there was no significant

difference in the 9 to 14 year olds (M = 4, SD = 1.55) as compared to everyone else (M = 4.2, SD

= .45), $F(1, 9)$ = .08, p = .79 in the perceived amount of knowledge gained. The results also show

that there was no significant difference in the 9 to 14 year olds (M = 3.83, SD = 1.47) as

compared to everyone else (M = 3.80, SD = .84), $F(1, 9)$ = .002, p = .97 in the amount of

reported enjoyment. Based on our data, we concluded that the participants' age influences

neither how much they reported enjoying the What Belongs game nor how much they learned.

Quiz game.

Overall we found that the quiz game was rated a success in the areas of learning ($M =$

4.25, $SD = .75$) and enjoyment ($M = 4.25$, $SD = .87$). We investigated whether the reported

learning from the game was related to the perceived enjoyment of the quiz game and found a

correlation between these two variables, r = .73, p = .007. Therefore we determined that learning

was related to the perceived enjoyment of the quiz game.

Age Differences. Since the activities were designed for visitors from the ages of 9 to 14

years old, we wanted to see if the age of the participant influenced how much they reported

learning and enjoying the quiz game. To see if the participant's age influenced how much they

reported learning from the quiz game and the reported level of enjoyment, we conducted separate

one-way ANOVAs. The results show that there was no significant difference in the 9 to 14 year

olds ($M = 4.33$, $SD = .82$) as compared to everyone else ($M = 4.17$, $SD = .75$), $F(1, 10) = .14$, $p =$

.72 in the perceived amount of knowledge gained. The results also show that there was no

significant difference in the 9 to 14 year olds ($M = 4.67$, $SD = .52$) as compared to everyone else

($M = 3.83$, $SD = .98$), $F(1, 10) = 3.38$, $p = .10$ in the amount of reported enjoyment. Based on

our data, we concluded that the participants' age influences neither how much they reported

enjoying the quiz game nor how much they learned.

Salted Fish Game.

Overall we found that the salted fish game was rated a success in the areas of learning (M

$= 4$, $SD = .95$) and enjoyment ($M = 4.05$, $SD = .92$). We investigated whether the reported

learning from the game was related to the perceived enjoyment of the salted fish game; however

we found no correlation between these two variables, r = .23, p = .32. Therefore we determined that learning was not related to the perceived enjoyment of the salted fish game.

Age Differences. Since the activities were designed for visitors from the ages of 9 to 14 years old, we wanted to see if the age of the participant influenced how much they reported learning and enjoying the salted fish game. To see if the participant's age influenced how much they reported learning from the salted fish game and the reported level of enjoyment, we conducted separate one-way ANOVAs. The results show that there was no significant difference in the 9 to 14 year olds ($M = 4.17$, $SD = .72$) as compared to everyone else ($M = 3.78$, $SD = 1.2$), $F(1, 19) = .86$, $p = .37$ in the perceived amount of knowledge gained. The results also show that there was no significant difference in the 9 to 14 year olds ($M = 4.08$, $SD = .9$) as compared to everyone else ($M = 4.00$, $SD = 1$), $F(1, 19) = .04$, $p = .84$ in the amount of reported enjoyment. Based on our data, we concluded that the participants' age influences neither how much they reported enjoying the salted fish game nor how much they learned.

4.2.3: Informational Display Evaluation

Spring Scrolls and Door Gods.

Overall we found that the spring scrolls and Door Gods informational display was rated a success in the areas of learning ($M = 4.2$, $SD = 1.16$) and enjoyment ($M = 4$, $SD = 1$). We investigated whether the reported learning from the game was related to the perceived enjoyment of the spring scrolls and Door Gods informational display and found a correlation between these two variables, r = .65, p = .0. Therefore we determined that learning was related to the perceived enjoyment of the spring scrolls and Door Gods informational display.

Age Differences. Since the activities were designed for visitors from the ages of 9 to 14 years old, we wanted to see if the age of the participant influenced how much they reported

learning and enjoying the appearance of the spring scrolls and Door Gods informational display. To do so, we conducted two separate one-way ANOVAs. The results show that there was no significant difference in the 9 to 14 year olds ($M = 4.15$, $SD = 1.07$) as compared to everyone else ($M = 4.14$, $SD = 1.57$), $F(1, 18) = 0$, $p = .99$ in the perceived amount of knowledge gained. The results also show that there was no significant difference in the 9 to 14 year olds ($M = 4.15$, $SD = .8$) as compared to everyone else ($M = 3.71$, $SD = 1.25$), $F(1, 18) = .92$, $p = .35$ in the amount of reported enjoyment of the appearance. Based on our data, we concluded that the participants' age influences neither how much they reported enjoying the appearance of the spring scrolls and Door Gods informational display nor how much they learned.

Fortune Telling.

Overall we found that the fortune telling informational display was rated a success in the areas of learning ($M = 4.14$, $SD = .89$) and enjoyment ($M = 4.14$, $SD = .94$). We investigated whether the reported learning from the game was related to the perceived enjoyment of the fortune telling informational display and found a correlation between these two variables, $r = .77$, $p = .0$. Therefore we determined that learning was related to the perceived enjoyment of the fortune telling informational display.

Age Differences. Since the activities were designed for visitors from the ages of 9 to 14 years old, we wanted to see if the age of the participant influenced how much they reported learning and enjoying the appearance of the fortune telling informational display. To do so, we conducted two separate one-way ANOVAs. The results show that there was no significant difference in the 9 to 14 year olds ($M = 4.08$, $SD = .95$) as compared to everyone else ($M = 4.40$, $SD = .89$), $F(1, 16) = .43$, $p = .52$ in the perceived amount of knowledge gained. The results also show that there was no significant difference in the 9 to 14 year olds ($M = 4.00$, $SD = 1$) as

compared to everyone else ($M = 4.40$, $SD = .89$), $F(1, 16) = .61$, $p = .45$ in the amount of reported enjoyment of the appearance. Based on our data, we concluded that the participants' age influences neither how much they reported enjoying the appearance of the fortune telling informational display nor how much they learned.

Lunar New Year.

Overall we found that the Lunar New Year informational display was rated a success in the areas of learning ($M = 4.35$, $SD = .89$) and enjoyment ($M = 4.09$, $SD = 1.13$). We investigated whether the reported learning from the game was related to the perceived enjoyment of the Lunar New Year informational display and found a correlation between these two variables, r = .43, p = .043. Therefore we determined that learning was related to the perceived enjoyment of the Lunar New Year informational display.

Age Differences. Since the activities were designed for visitors from the ages of 9 to 14 years old, we wanted to see if the age of the participant influenced how much they reported learning and enjoying the appearance of the Lunar New Year informational display. To do so, we conducted two separate one-way ANOVAs. The results show that there was no significant difference in the 9 to 14 year olds ($M = 4.55$, $SD = .69$) as compared to everyone else ($M = 4.00$, $SD = 1.16$), $F(1, 16) = 1.6$, $p = .22$ in the perceived amount of knowledge gained. The results also show that there was no significant difference in the 9 to 14 year olds ($M = 4.36$, $SD = 1.03$) as compared to everyone else ($M = 3.71$, $SD = 1.38$), $F(1, 16) = 1.31$, $p = .27$ in the amount of reported enjoyment of the appearance. Based on our data, we concluded that the participants' age influences neither how much they reported enjoying the appearance of the Lunar New Year informational display nor how much they learned.

Mid-Autumn and Hungry Ghost Festivals.

Overall we found that the mid-autumn and hungry ghost informational display was rated a success in the areas of learning (M = 4.38, SD = .87) and enjoyment (M = 4.29, SD = 1.1). We investigated whether the reported learning from the game was related to the perceived enjoyment of the mid-autumn and hungry ghost informational display; however we found no correlation between these two variables, r = .3, p = .19. Therefore we determined that learning was not related to the perceived enjoyment of the mid-autumn and hungry ghost informational display.

Age Differences. Since the activities were designed for visitors from the ages of 9 to 14 years old, we wanted to see if the age of the participant influenced how much they reported learning and enjoying the appearance of the mid-autumn and hungry ghost festivals informational display. To do so, we conducted two separate one-way ANOVAs. The results show that there was no significant difference in the 9 to 14 year olds (M = 4.27, SD = .79) as compared to everyone else (M = 4.20, SD = 1.3), $F(1, 14)$ = .02, p = .89 in the perceived amount of knowledge gained. The results also show that there was no significant difference in the 9 to 14 year olds (M = 4.55, SD = .69) as compared to everyone else (M = 3.80, SD = 1.64), $F(1, 14)$ = 1.72, p = .21 in the amount of reported enjoyment of appearance. Based on our data, we concluded that the participants' age influences neither how much they reported enjoying the appearance of the mid-autumn and hungry ghost festivals informational display nor how much they learned.

Dragon Boat and Tin Hau Festivals.

Overall we found that the dragon boat and Tin Hau informational display was rated a success in the areas of learning (M = 4.24, SD = .89) and enjoyment (M = 4.24, SD = .77). We investigated whether the reported learning from the game was related to the perceived enjoyment

of the dragon boat and Tin Hau informational display; however we found no correlation between these two variables, r = .21, p = .37. Therefore we determined that learning was not related to the perceived enjoyment of the dragon boat and Tin Hau informational display.

Age Differences. Since the activities were designed for visitors from the ages of 9 to 14 years old, we wanted to see if the age of the participant influenced how much they reported learning and enjoying the appearance of the dragon boat and Tin Hau festivals informational display. To do so, we conducted two separate one-way ANOVAs, we conducted two separate one-way ANOVAs. The results show that there was no significant difference in the 9 to 14 year olds (M = 4.09, SD = 1.04) as compared to everyone else (M = 4.20, SD = .84), $F(1, 14)$ = .04, p = .84 in the perceived amount of knowledge gained. The results also show that there was no significant difference in the 9 to 14 year olds (M = 4.27, SD = .77) as compared to everyone else (M = 4.00, SD = .71), $F(1, 14)$ = .44, p = .52 in the amount of reported enjoyment of appearance. Based on our data, we concluded that the participants' age influences neither how much they reported enjoying the appearance of the dragon boat and Tin Hau festivals informational display nor how much they learned.

4.3: Educational survey

To judge the amount of knowledge learned by the museum visitor, we conducted a quiz survey utilizing pre-test and post-test data. We distributed a quiz to be taken by visitors before interaction with the Education Corner (pre-test) and by visitors after interacting with the Education Corner (post-test). Using a one-way ANOVA and found that there was no statistically significant difference in the score of the pre-test participants (M = 1.27, SD = .96) and the post-test participants (M = 1.26, SD = 1.04) $F(1,52)$ = .001, p = .97. Based on this data we were

unable to conclude that there was a significant increase in learning after interacting with the

Education Corner.

Chapter 5: Discussion

5.1: Conclusions

Over the course of our study we judged the effectiveness of the activities and displays in the Education Corner through the use of surveys and observational studies. Based on these results, we were able to asses each of the room components based on usability, social interaction, level of enjoyment, educational value, and attraction. An important finding was a positive correlation between education and enjoyment (i.e., the more enjoyable the game was, the more visitors reported learning) for each of the three major types of our activities; hands-on games, computer games, and informational displays. Overall, our analysis supports the hypothesis that by utilizing interactive activities, visitors will be engaged in cultural learning. Using these analyses, we were able to make recommendations for improvement to the interactive room and future research.

5.2: Limitations and Further Research

Within the study, there were a few limitations that affected the collected data. First, the sample size of the surveys was small for children in our focus age group (9 to 14 years) which limits the accuracy and precision of the analyses. Additionally, since not every participant completed all the sections of the survey, sample sizes for each section varied, which could lead skewed data. Future research could perform a similar study with a larger sample size to see if the statistical results vary.

Another limitation to gathering our data was the format of the quiz survey that we distributed to the visitors. The final version of the quiz had only four questions for the children to answer, after having to remove some for translation and content reasons. By having more questions, there would be a greater variance in the scores. If a similar evaluation was later

conducted, it would be helpful to include a larger number of questions to increase the power of the evaluation in terms of the analytic significance.

Due to the limited number of observers, the large amount of factors to be observed, and the large number of visitors that explored the room at once, it was difficult, at times, to collect accurate measurements for the observational surveys. Future studies should employ more evaluators to increase the validity of the data. The studies could also focus in on certain aspects only, instead of considering as many observational measurements at once. Either of these revised methods would reduce the number of inaccurate recordings due to the evaluator needing to attend to many factors at one time and produce more representative data.

We originally planned to survey visitors before entering the Education Corner and again afterwards in order to draw conclusions on how much the room taught them. Since we had no formal method of having participants take surveys ahead of time and many groups had time limitations for viewing the exhibit, we were unable to get the same people to take the quiz twice. Visitors who only went through a part of the exhibit also had an effect on the accuracy of our results, as the quiz was intended to be taken after the visitor had interacted with everything in the room. Future research could conduct a similar study where the same participants are given both a pre-test and post-test to analyze the amount learned

5.3: Recommendations:

Based on our observations we have come up with a number of recommendations that we feel will improve the interactive room at the Hong Kong Museum of History. We have divided these into two categories, Aesthetics and Room Layout recommendations and Activity Specific recommendations. The Activity Specific recommendations are listed below, while the recommendations regarding Aesthetics & Room Layout can be found in Appendix R.

a. Spring Scrolls

Given the number of visitors who participated in our Spring Scrolls activity, we found the provided materials were rapidly consumed. Paper supplies were expended quickly and were often wasted, while the few pens that we provided went dry quickly. In order to correct this, the museum would need to keep a substantial number of extra packets of paper and pens on hand to replace the expended ones as they run out. The rate of consumption could be decreased by amending the instructions to ask that the participant only use a maximum of two sheets each.

b. Door Gods

Since our Door God activity received a perfect 5 out of 5 rating in enjoyment for our age group, we can conclude that it was a well received activity. There are ways, however, that we might improve it with regards to the Education Corner as a whole. The pictures used in the activity are quite detailed, and children often take a long time to color them in. For children who have a limited time in the museum and especially those with a short time in Gallery 4 it is important that we allow the children to see as much of the room as possible. By simplifying the drawings the children would be able to finish them more quickly and therefore move on to the rest of the activities in the Education Centre.

c. Fortune Telling

The fortune telling activity was quite popular, as our data clearly showed. It received a perfect 5 out of 5 rating for enjoyment from each of the visitors in our target age group who gave feedback on the game. Although the children certainly seemed to enjoy it, there are still some improvements that can be made to the design to improve its ease of use. For one, the game itself was made by hand by our group, which meant that it did not have the precision construction that a machine-made product or even a game hand-made by a skilled professional would have. It

also is not a perfect replica of typical *Kau Cim* fortune telling pieces and doesn't work in exactly the same way, which sometimes confuses the visitors. By modifying the design to make it easier to play and understand, and manufacturing a more professional looking game, we can likely improve the enjoyment of the activity for everyone.

d. Board Game

The board game was very well received, and there are no major improvements to be made to the game itself in concept. The game pieces used for the game were created from a number of lightweight cardboard pieces and foam in order to make them both safer and less expensive to replace. These pieces often broke or came apart with extended use, however, which makes it impossible for children to play with them. In the future we recommend that the museum designs more durable game piece so that they would be less likely to break and would last longer.

e. Salted Fish

Although we attempted to make the directions as clear as possible while the player progresses through the Salted Fish game, some visitors still found the instructions hard to follow. In order to improve this, we think that the visitors would benefit from adding audio instructions to each stage of the game. A narrator can explain each step of making salted fish in either Cantonese or English, depending on the user's choice, accompanied by further visual indications such as arrows to clarify the message.

f. What Belongs

The "What Belongs?" game was created as an interactive way for children to learn about the different artifacts kept in Gallery 4. While the game does contain information on many different items and presents them in an interactive way, the final product was not as effective as

we had envisioned. We found it difficult to organize the game well and still be able to present

the information in an intuitive way, which made creating an effective game a very difficult task.

Barring an effective solution to this issue, we feel that the Museum would best benefit from

removing the game altogether, and replacing it instead with a game outlining the process of

making shrimp paste or salt. If replacing it is not an option, some possible methods of improving

the effectiveness of the game include having the objects disappear from view once they had been

selected for the first time, and not allowing the player to click other objects until they read and

close the text box that shows after clicking an object.

5.4: Conclusion

During this process, we have designed and evaluated an interactive room that utilizes

interactive learning in order to promote cultural education. Our analyses have suggested that the

designed activities encourage cultural learning and provide enjoyment for most room visitors.

After implementing the presented suggestions, the exhibit should be ready for full-time use in the

museum as an educational resource for all patrons.

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*Note: The following information was submitted to the museum before the translation process and that included edits for content

The Lunar New Year's Festival (Beginning of the 1st Lunar Month)
"Kung hey fat choy", or "happiness and fortune to you", is a common greeting used by people during this festival (Stepanchuk, 1994). [As the old year is left behind, so are the misfortunes, troubles, & wrongs of the past, allowing for a fresh start and new fortune. Before the New Year, quarrels are resolved, debts are repaid, and homes are cleaned to prepare for the coming year. On New Year's Day, no one works, says bad things, or eats meat as it is a time of self-purification and renewal.] (Law, 1982, 17 & 27)   Although each new year celebrates the coming of one of the zodiac animals, New Years is most importantly a time to show respect to the gods and ancestors and spend time with family.

In past traditional homes, the family head would offer incense and pay respect to Heaven, Earth, the family ancestors, and the guardian spirits at night. Then they would lock and seal the doors before midnight as protection against the evil spirits which were out and about during the passing of the year. At dawn, the door would be re-opened and the head would pay respect to the Heaven and Earth, the ancestors, and the returning Kitchen God (Law, 1982, 27). Although this particular tradition is no longer widely practiced, families still have a special family dinner of many foods with names that signify good luck (Law, 1982).

Kitchen God
On the 24th day of the12th moon, one week before Lunar New Years, it is said that the Kitchen God visits Heaven to report to the Jade Emperor about all the good and bad deeds of the humans (Stepanchuk, 1994, 9). At this time, many people give the Kitchen God offerings which are sweet or sticky to keep the God from being able to speak easily or so he will only say sweet things about them (Law, 1982, 17).

Mid-Autumn Festival (15th day of the 8th moon)
Occurring at the end of the summer harvest, this festival is a celebration of nature, family, ancestors, and the harvest (Siu, 1998, 19). This festival originated during the Tang Dynasty (618-906 AD) as a time to watch and admire the moon, but it became popular under the famous first emperor of the Liang Dynasty, Emperor Wu-Ti (Modder, 1983, 51). Also during the Tang Dynasty, the lantern parade was introduced with lanterns shaped in relation to nature, agriculture, and the local culture (Siu, 1998, 19). The lanterns would later be placed on alters with joss-sticks and the people would pray to Yueh Lao-yeh (the old man on the moon), the Three-Legged Frog who also lived on the moon, and the Spirit of Joy (Modder, 51). People would take time during this festival to give thanks for the plentiful harvest, gaze at the moon, and eat moon-shaped fruit and mooncakes (Law, 1982, 73).

Mooncakes have thin wrappings with fine, sweet-scented lotus seed paste and egg yolks inside (Szeto, 1996, 99). Since the Southern Sung Dynasty (1127-1279 AD), mooncakes have been exchanged between family and friends during the festival (Modder, 1983, 51). There is a well-known legend involving the moon cakes about Zheng Shi-cheng in which he used the mooncake custom to send secret messages in mooncakes to his friends and relatives telling them

to revolt and overthrow the Yuan government on the 15th day of the 8th lunar month (Szeto, 1996, 99).

Hungry Ghost Festival (7th Moon)

According to traditional belief, the seventh month is a time when the gates to the underworld are open and when ghosts are free to roam. Angry ghosts are typically those who died with no children or their line has died out, thus no one is left to pay patronage with food, paper clothing, and spirit money to their graves during the Qing Ming festival. They resent this and are therefore dangerous to people unless placated. Many opera performances are given during this time to entertain the ghosts. Offerings similar to those given to ancestors and gods are set out for them and later burned at the end of the ceremonies. (Law, 1982, 67)

Legend tells that when Koon Yam, the Goddess of Mercy, was still human, she gave the first feast to the hungry ghosts. However, they were too rowdy so next time she asked Taai Si Wong to help her keep them in line and they behaved much better. Therefore, a giant paper figure of Taai Si Wong is now carried around the festival to witness the proceedings and burning of offerings. At the end of the festival, the paper figure of Taai Si Wong is also burned so that he can return to Heaven to report the proceedings to the Jade Emperor. (Law, 1982, 68)

Dragon Boat Festival (5th day of the 5th moon)

Also known as the Double Fifth or the Festival of the Patriotic Poet, this festival involves dragon boat races in Hong Kong and other Southern parts of China (Modder, 1983). [The boats are skinny and similarly shaped at each end, but distinguishable by the detachable head and tail parts. The heads and tails are kept in the temples where the head is respected with incense and candles as well as protected from dangers to its *yang* such as a woman's touch.] (Law, 1982, 53)

There are two main explanations for the origination of this festival: protection from the Double Fifth & the legend of Wat Yuen. [The fifth month is considered a dangerous month, especially for catching diseases. The fifth day of the fifth month, the double fifth, is considered especially auspicious and dangerous. Therefore, dragon boat races were held to ward off the danger as the dragons are believed to be benevolent and powerful creatures. Even with this protective power, traditional villagers still hung aromatic plants such as mugwort, pieces of pork from temples, and onions over village doors to protect against evil spirits as an extra precaution.] (Law, 1982, 54)

[In the legend of Wat Yuen, Wat Yuen was a famous poet and state minister during the Warring States period (3rd century BC). He gave wise advice to the king of the state, but the king would not listen and dismissed Wat Yuen. In despair, he composed his most beautiful poem about his ideals, life, and a farewell to his country before he threw himself into a river. The district people took up their boats to search for him, but once they realized he had drowned, they threw rice to keep the fish from eating his body.] (Law, 1982, 54; & Modder, 1983, 36-37) The villagers later held a festival in honor of his memory once a year, which later became the dragon boat festival. They would give rice offerings wrapped in leaves in square shapes with sharp edges to deter demons who tried to eat the rice inside (Modder, 1983, 37). Now, most people themselves eat the rice dumplings at the festival, rather than offering them in the river.

Tin Hau Festival (23ʳᵈ day of the 3ʳᵈ Moon)

One legend tells that Tin Hau was the daughter of a fisherman during the Sung dynasty. One night her parents and brothers were out at sea and were caught in a terrible storm. Through prayer, she miraculously brought them out of the storm and back to shore. The rest of the story varies greatly, though she was widely thought to be capable of preventing disasters at sea. She mysteriously died at an early age but was revered for centuries as a benevolent being. She was officially canonized in the 12ᵗʰ century and given the title "Saintly and Diligent Savior." Her popularity continued to grow for the next few centuries until, after the successful reclamation of Taiwan in 1683 due to her aide; she was officially deemed the Queen of Heaven. The Boat Dwellers in particular celebrate the Tin Hau festival with great enthusiasm, as Tin Hau is considered to be a deity of the sea. The Tin Hau Festival is a celebration of Tin Hau's birthday. (Modder, 1983; & Law, 1982)

Spring Scrolls

On the last day of the year, people put up lucky papers around their home. These papers are marked with the characters for wealth, longevity, or "the gift of sons" and are thought to bring luck in the coming year. Above the door, the phrase "May all your comings and goings be peaceful" is typically hung. The Boat Dwellers also participate in this tradition, hanging the phrase "May you have a favorable wind all the way" across the entrance to their fishing junk. (Law, 1982, 18)

Door Gods

One legend explains that Emperor T'ai Tsung of the T'ang Dynasty could not sleep because he was haunted by restless spirits. One night his two greatest generals, Ch'in Shu-pao and Yu Ch'in Ching-te, guarded the palace door while he slept. The Emperor slept soundly, and had portraits of the two generals painted out of gratitude for their deed. These paintings were then hung over the doors of the palace to ward off evil spirits. This practice was adopted by the citizens, and each Lunar New Year a new pair of Door Gods are posted on the doors of homes and businesses. (Law, 1982, 18; & Modder, 1983)

Kau Cim **Fortune Telling**

Fortune telling is a tradition that dates back to ancient China and has continued until the present day. One of the most popular forms of fortune telling is the *Kau Cim* or fortune sticks method. This method takes place at a temple and can be seen practiced at several festivals especially at the Lunar New Year. The fortune sticks themselves are usually made from bamboo and contain a specific number on them. The number on each stick corresponds to a "chim" or a message from the god you are praying to. Since different temples are dedicated to different gods, the chims will vary from temple to temple. The chims are usually phrases that relate to specific historical events or legends. There are usually 100 sticks in total but some temples will only have 64. The sticks are kept in a container that has been blessed with the god's good will (Cheung, 1983, p 4-5).

The person seeking their fortune will enter the temple and take the container to the statue of the god of their choice. They kneel down and ask a question to the deity and shake the blessed container. The container is shaken until only one of the bamboo sticks fall out, but if more than one stick falls out, they have to replace the sticks and shake again. The person would

then look at the number on the stick and match it with the appropriately numbered chim. The fortune seeker can try and decipher how the chim's phrase answers their question themselves, but this is often very hard. Another option is that they can ask a blessed, wise soothsayer in the temple to decipher it for a small fee. The fortunes answered by the chims only predict the immediate future and last for one lunar year starting from the first day of the Lunar New Year (Cheung, 1983, p 4-5).

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農曆 新年 (農曆 正月)

　　春節期間，大家都以「恭喜發財」互相祝福。所謂去舊迎新，隨著一年的結束，所有不吉利的事情、煩惱和錯誤都已成過去，準備迎接新的一年。春節前，所有的糾紛都要解決，家中打掃得窗明几淨，迎接新年的來臨。春節期間，人們暫且放下工作，盡享佳餚，充分放鬆身心。每年春節，中國人都會迎來一個新的生肖，春節是供奉神明及祖先的重要節日，亦是與家人團聚的時刻。

　　在過往傳統的家庭中，一家之主要在(農曆 新年除夕?)晚上燃香祭拜天地、祖先和神祇。然後要在午夜前把門鎖上，避免歲末的惡靈帶來厄運。黎明時分，一家之主要開門祭拜天地、祖先和灶君。在現今社會，很少家庭仍奉行這些傳統，但人們還是會在除夕夜與家人團聚，共享象徵好兆頭的各種美食。

Lunar New Year Festival (Beginning of the 1st Lunar Month)

"Kung hey fat choy" or "happiness and fortune to you", is a common greeting used by people during this festival. As the old year is left behind, so are the misfortunes, troubles, and wrongs of the past, allowing for a fresh start and new fortune. Before the New Year, quarrels are resolved, and homes are cleaned to prepare for the coming year. On New Year's Day, no one works or says bad things, instead people gather for meals as it is a time of renewal and enjoyment. Although each New Year celebrates the coming of one of the zodiac animals, New Year is most importantly a time to show respect to the gods and ancestors and spend time with family.

In the past in traditional homes, the head of the family would offer incense and pay respect to Heaven, Earth, the family ancestors, and the guardian spirits at night (on the Chinese New Year's eve?). Then they would lock and seal the doors before midnight as protection against the evil spirits which were out and about during the passing of the year. At dawn, the door would be reopened and the head of the family would pay respect to Heaven and Earth, the ancestors, and the returning Kitchen God. Although this particular tradition is no longer widely practised, families still have a special family dinner with many kinds of food with names that signify good luck.

灶君

　　在農曆十二月廿四，即春節前一週，相傳灶君會上天向玉皇大帝匯報人間的善惡。這時，人們會向灶君供奉黏牙的甜食，使其不便開口，只向玉皇大帝報告人間的好事。

Kitchen God

On the 24th day of the 12th moon, one week before Lunar New Year, it is said that the Kitchen God visits Heaven to report to the Jade Emperor about all the good and bad deeds of humans. At this time, many people give the Kitchen God sweet or sticky offerings to keep the god from being able to speak easily or so that he will say only sweet things about them.

Lunar New Year 農曆新年

Lunar New Year Festival (Beginning of the 1st Lunar Month)

"Kung hey fat choy" or "happiness and fortune to you", is a common greeting used by people during this festival. As the old year is left behind, so are the misfortunes, troubles, and wrongs of the past, allowing for a fresh start and new fortune. Before the New Year, quarrels are resolved, and homes are cleaned to prepare for the coming year. On New Year's Day, no one works or says bad things, instead people gather for meals as it is a time of renewal and enjoyment. Although each New Year celebrates the coming of one of the zodiac animals, New Year is most importantly a time to show respect to the gods and ancestors and spend time with family.

In the past in traditional homes, the head of the family would offer incense and pay respect to Heaven, Earth, the family ancestors, and the guardian spirits on Lunar New Year's Eve. Then they would lock and seal the doors before midnight as protection against the evil spirits which were out and about during the passing of the year. At dawn, the door would be reopened and the head of the family would pay respect to Heaven and Earth, the ancestors, and the returning Kitchen God. Although this particular tradition is no longer widely practised, families still have a special family dinner with many kinds of food with names that signify good luck.

農曆新年 (農曆正月)

春節期間，大家都以「恭喜發財」互相祝福。所謂去舊迎新，隨著一年的結束，所有不吉利的事情、煩惱和錯誤都已成過去，準備迎接新的一年。春節前，所有的糾紛都要解決，家中打掃得窗明几淨，迎接新年的來臨。春節期間，人們暫且放下工作，盡享佳餚，充分放鬆身心。每年春節，中國人都會迎來一個新的生肖，春節是供奉神明及祖先的重要節日，亦是與家人團聚的時刻。

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在農曆十二月廿四，即春節前一週，相傳灶君會上天向玉皇大帝匯報人間的善惡。這時，人們會向灶君供奉黏牙的甜食，使其不便開口，只向玉皇大帝報告人間的好事。

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Appendix C: Mid-Autumn and Hungry Ghost Festivals Display Information

中秋節 （農曆八月十五）

　　相傳中秋節源自唐代（公元618－906年）， 是賞月的佳節。在唐代， 賞燈會開始出現， 花燈的形狀 象徵 大自然、農業及傳統文化。月餅是中秋節的傳統節慶食品， 外有一層薄皮， 內有香甜的蓮蓉餡及蛋黃。自南宋開始（公元1127－1279年）， 親朋好友在中秋節互相贈送月餅。相傳朱元璋(明朝的開國皇帝)利用送月餅的風俗， 將密函藏在月餅中， 通知其他起義者於農曆 八月十五當日起兵推翻元朝。

Mid-Autumn Festival (15th day of the 8th moon)

The Mid-Autumn Festival was said to be originated during the Tang dynasty (AD 618-906) as a time to watch and admire the moon. During this period, the lantern parade was also introduced, with lanterns in shapes related to nature, agriculture, and the local culture. Mooncakes are popular festive food during the festival. They have a thin wrapping with fine, sweet-scented lotus seed paste and egg yolks inside. Since the Southern Song Dynasty (AD1127-1279) mooncakes have been exchanged among family and friends during the festival. There is a well-known legend involving mooncakes about Zhu Yuanzhang (the first emperor of the Ming dynasty), in which he used the mooncake custom to send secret messages in mooncakes to his supporters telling them to revolt and overthrow the Yuan government on the 15th day of the 8th lunar month.

盂蘭節 （或稱鬼節）（農曆七月）

　　相傳於農曆 七月， 通向地府的鬼門會開啓， 鬼魂在人間四處遊蕩。餓鬼主要是死後無子或血脈已絕的亡靈，因此，在清明節時，無人在其墳前供奉食物、紙衣服和冥幣。由於這些鬼魂未受安撫，他們心懷怨恨，四處作惡。這時候，人們會進行很多戲曲表演，取悅鬼魂。人們會像供奉祖先及神明那樣爲餓鬼準備供品，並於儀式結束後付之一炬。

　　相傳， 當慈悲的觀音菩薩仍為凡人時， 她第一次為餓鬼準備食物。那一次的場面十分混亂， 後來觀音邀請鬼王維持餓鬼的秩序， 餓鬼便恭順多了。因此， 現在的鬼節都會懸掛巨大的鬼王紙像， 見證祭拜過程及供品的焚燒。節日最後， 鬼王紙像亦會被焚燒， 鬼王到天上向玉皇大帝報告人間的情況。

Hungry Ghost Festival (7th Moon)

According to traditional belief, the seventh month is a time when the gates to the underworld are open and ghosts are free to roam. Angry ghosts are typically those who died with no children or whose line has died out, and thus no one is left to pay homage to them with food, paper clothing, and spirit money at their graves during the Ching Ming festival. They resent this and are therefore dangerous to people unless placated. Many opera performances are given during this time to entertain the ghosts. Offerings similar to those given to ancestors and gods are set out for them and later burned at the end of the ceremonies.

Legend says that when Kwun Yam, the Goddess of Mercy, was still human, she gave the first feast to the hungry ghosts. However, they were too rowdy, so next time she asked

Dashiwang, the King of Ghosts, to help her keep them in line; and they behaved much better. Therefore, a giant paper figure of Dashiwang is now carried around at the festival to witness the proceedings and the burning of offerings. At the end of the festival, the paper figure of Dashiwang is also burnt so that he can return to Heaven to report the proceedings to the Jade Emperor.

Hungry Ghost Festival 盂蘭節　*Mid-Autumn Festival* 中秋節

盂蘭節 (或稱鬼節) (農曆七月)

　　相傳於農曆七月，通向地府的鬼門會開啟，鬼魂在人間四處遊蕩。餓鬼主要是死後無子或血脈已絕的亡靈，因此，在清明節時，無人在其墳前供奉食物、紙衣服和冥幣。由於這些鬼魂未受安撫，他們心懷怨恨，四處作惡。這時候，人們會進行很多戲曲表演，取悅鬼魂。人們會像供奉祖先及神明那樣為餓鬼準備供品，並於儀式結束後付之一炬。

　　相傳，當慈悲的觀音菩薩仍為凡人時，她第一次為餓鬼準備食物。那一次的場面十分混亂，後來觀音邀請鬼王維持餓鬼的秩序，餓鬼便恭順多了。因此，現在的鬼節都會懸掛巨大的鬼王紙像，見證祭拜過程及供品的焚燒。節日最後，鬼王紙像亦會被焚燒，鬼王到天上向玉皇大帝報告人間的情況。

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中秋節 (農曆八月十五)

　　相傳中秋節源自唐代 (公元618 - 906年)，是賞月的佳節。在唐代，賞燈會開始出現，花燈的形狀象徵大自然、農業及傳統文化。月餅是中秋節的傳統節慶食品，外有一層薄皮，內有香甜的蓮蓉餡及蛋黃。自南宋開始 (公元1127 - 1279年)，親朋好友在中秋節互相贈送月餅。相傳朱元璋(明朝的開國皇帝)利用送月餅的風俗，將密函藏在月餅中，通知其他起義者於農曆八月十五當日起兵推翻元朝。

Mid-Autumn Festival (15th day of the 8th moon)

　　The Mid-Autumn Festival was said to be originated during the Tang dynasty (AD 618-906) as a time to watch and admire the moon. During this period, the lantern parade was also introduced, with lanterns in shapes related to nature, agriculture, and the local culture. Mooncakes are popular festive food during the festival. They have a thin wrapping with fine, sweet-scented lotus seed paste and egg yolks inside. Since the Southern Song Dynasty (AD1127-1279) mooncakes have been exchanged among family and friends during the festival. There is a well-known legend involving mooncakes about Zhu Yuanzhang (the first emperor of the Ming dynasty), in which he used the mooncake custom to send secret messages in mooncakes to his supporters telling them to revolt and overthrow the Yuan government on the 15th day of the 8th lunar month.

Museum Owned Image

Museum Owned Image

Appendix D: Dragon Boat and Tin Hau Festivals Display Information

端午節 （農曆 五月初五）

　　　　端午節是紀念一位愛國詩人 －
屈原。屈原是戰國時代（公元前3世紀）的著名詩人及宰相。他向楚王獻言獻策，但楚王不予採納，反而將其流放。在絕望中，他用華美的詩篇表達自己的人生理想，包括對祖國的辭別，然後投江自盡。百姓駕船尋找屈原，意識到屈原已經溺水而亡後，百姓將稻米撒入江中，不讓魚吃屈原的軀體。後來，百姓每年舉行節日紀念屈原，後演變成端午節。現在，人們用葉子包裹稻米及各式各樣的餡料製成粽子，並舉辦龍舟競賽為慶祝活動。龍舟狹長，兩端形狀類似，可按頭尾裝飾區分前後。龍舟的頭尾一般存放於寺廟內，燃香及蠟燭供奉龍頭。

Dragon Boat Festival (5th day of the 5th moon)

　　　　Dragon Boat Festival is held in memory of a patriotic poet - Qu Yuan, who was a famous poet and state minister during the Warring States period (3rd century BC). He gave wise advice to the king of State Chu, but the king would not listen and dismissed him. In despair, he composed his most beautiful poem about his ideals and life, including a farewell to his country, before throwing himself into a river. The local people took out their boats to search for him, but once they realized he had drowned they threw rice to keep the fish from eating his body. The villagers later held a festival in honour of his memory once a year, which later became the Dragon Boat Festival. They would give rice offerings with different ingredients wrapped in leaves, and organise dragon boat races. Dragon boats are narrow and shaped similarly at each end, but distinguishable by the detachable head and tail parts. The heads and tails are kept in the temples, where the head is respected with incense and candles.

天后誕 （農曆 三月廿三）

　　　　根據傳說，天后是宋代 (公元 960-
1279年)一漁民之女。一天晚上，天后的父母及兄弟出海打魚，遇上風暴。天后不停的祈禱，竟奇跡般將家人從風暴中救回岸上。傳說餘下的部分眾說紛紜，但人們一般認為天后具有避免海難的能力。天后英年早逝，但數百年來，人們仍將她敬奉為慈悲之神。隨後的數百年，天后廣受敬奉，清朝年間(公元1644-
1911年)更正式被封為天后。由於天后被視為海神，船民尤其重視天后的生辰 –
天后誕，並舉行大規模的慶祝活動。

Tin Hau Festival (23rd day of the 3rd Moon)

　　　　One legend says that Tin Hau was the daughter of a fisherman during the Song dynasty (AD 960-1279). One night, her parents and brothers were out at sea and were caught in a terrible

storm. Through prayer, she miraculously brought them through the storm and back to shore. The rest of the story varies greatly, though she was widely thought to be capable of preventing disasters at sea. She died mysteriously at an early age but was revered for centuries as a benevolent being. She was officially canonized in the 12th century and given the title "Saintly and Diligent Saviour." Her popularity continued to grow for the next few centuries until, and was officially deemed the Empress of Heaven during the Qing dynasty (AD1644 – 1911). The Boat Dwellers in particular celebrate the Tin Hau Festival with great enthusiasm, as Tin Hau is considered a deity of the sea. The Tin Hau Festival is a celebration of Tin Hau's birthday.

Dragon Boat Festival 端午節

端午節（農曆五月初五）

　　端午節是紀念一位愛國詩人 —— 屈原。屈原是戰國時代（公元前3世紀）的著名詩人及宰相。他向楚王獻言獻策，但楚王不予採納，反而將其流放。在絕望中，他用華美的詩篇表達自己的人生理想，包括對祖國的辭別，然後投江自盡。百姓駕船尋找屈原，意識到屈原已經溺水而亡後，百姓將稻米撒入江中，不讓魚吃屈原的軀體。後來，百姓每年舉行節日紀念屈原，後演變成端午節。現在，人們用葉子包裹稻米及各式各樣的餡料製成粽子，並舉辦龍舟競賽為慶祝活動。龍舟狹長，兩端形狀類似，可按頭尾裝飾區分前後。龍舟的頭尾一般存放於寺廟內，燃香及蠟燭供奉龍頭。

Dragon Boat Festival (5th day of the 5th moon)

　　Dragon Boat Festival is held in memory of a patriotic poet - Qu Yuan, who was a famous poet and state minister during the Warring States period (3rd century BC). He gave wise advice to the king of State Chu, but the king would not listen and dismissed him. In despair, he composed his most beautiful poem about his ideals and life, including a farewell to his country, before throwing himself into a river. The local people took out their boats to search for him, but once they realized he had drowned they threw rice to keep the fish from eating his body. The villagers later held a festival in honour of his memory once a year, which later became the Dragon Boat Festival. They would give rice offerings with different ingredients wrapped in leaves, and organise dragon boat races. Dragon boats are narrow and shaped similarly at each end, but distinguishable by the detachable head and tail parts. The heads and tails are kept in the temples, where the head is respected with incense and candles.

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Museum Owned Image

Tin Hau Festival 天后誕

天后誕（農曆三月廿三）

　　根據傳說，天后是宋代（公元960-1279年）一漁民之女。一天晚上，天后的父母及兄弟出海打魚，遇上風暴。天后不停的祈禱，竟奇跡般將家人從風暴中救回岸上。傳說餘下的部分眾說紛紜，但人們一般認為天后具有避免海難的能力。天后英年早逝，但數百年來，人們仍將她敬奉為慈悲之神。隨後的數百年，天后廣受敬奉，清朝年間（公元1644-1911年）更正式被封為天后。由於天后被視為海神，水上人尤其重視天后的生辰 —— 天后誕，並舉行大規模的慶祝活動。

Tin Hau Festival (23rd day of the 3rd Moon)

　　One legend says that Tin Hau was the daughter of a fisherman during the Song dynasty (AD 960-1279). One night, her parents and brothers were out at sea and were caught in a terrible storm. Through prayer, she miraculously brought them through the storm and back to shore. The rest of the story varies greatly, though she was widely thought to be capable of preventing disasters at sea. She died mysteriously at an early age but was revered for centuries as a benevolent being. She was officially canonized in the 12th century and given the title "Saintly and Diligent Saviour." Her popularity continued to grow for the next few centuries until, and was officially deemed the Empress of Heaven during the Qing dynasty (AD1644 – 1911). The Boat Dwellers in particular celebrate the Tin Hau Festival with great enthusiasm, as Tin Hau is considered a deity of the sea. The Tin Hau Festival is a celebration of Tin Hau's birthday.

Appendix E: Kau Cim Fortune Telling Display Information

求籤算命

　　　算命是中國古代的傳統習俗，並延續至今。求籤是最常見的算命形式之一。求籤主要在寺廟中進行，節日期間，尤其是農曆春節時十分常見。籤一般用竹子製成，上面寫有數字。籤上的數字對應籤文，或所拜之神賜予的指引。不同寺廟供奉不同的神，因此，各個寺廟的籤文亦各有不同。籤文一般是與特定的歷史事件或傳說相關的短語。籤筒內通常有100支籤，有些寺廟的籤筒只有64支籤。籤筒亦受神靈的庇佑。

如想算命，應進入寺廟，選擇要拜的神仙，在神像前拿起籤筒，然後雙膝跪下，向神靈發問，並同時搖動籤筒。當一支竹籤掉下後便停止搖動，但如果多支竹籤同時掉下，應把它們放回籤筒，再次搖動。然後，求籤者按照竹籤上的數字找到對應的籤文。求籤者可自行理解籤文的含義，但一般情況下，籤文都深奧難懂。求籤者亦可請寺廟內的高僧幫助解籤，捐贈香火錢。籤文預測的運勢僅在一個農曆年份內有效，自農曆新年第一天開始。

Kau Cim Fortune Telling

　　　Fortune telling is a tradition that dates back to ancient China and has continued up to the present day. One of the most popular forms of fortune telling is the *Kau Cim* or fortune sticks method. This method takes place at a temple and can be seen being practised at several festivals and especially at Lunar New Year. The fortune sticks are usually made from bamboo and have a specific number written on them. The number on each stick corresponds to a "*cim*" or a message from the god you are praying to. Since different temples are dedicated to different gods, the *cims* vary from temple to temple. The *cims* are usually phrases that relate to specific historical events or legends. There are usually 100 sticks in total but some temples will have only 64. The sticks are kept in a container that has been blessed with the god's good will.

　　　The person seeking to know their fortune will enter the temple and take the container to the statue of the god of their choice. They kneel down and ask a question of the deity and shake the blessed container. The container is shaken until only one of the bamboo sticks falls out, but if more than one stick falls out, they have to replace the sticks and shake again. The person then looks at the number on the stick and matches it with the appropriately numbered *cim*. The fortune seeker can try to decipher how the *cim*'s phrase answers their question themselves, but this is often very hard. Another option is to ask a blessed, wise soothsayer in the temple to decipher it for a small fee. The answers from the *cims* predict fortunes only for the immediate future and last for one lunar year starting from the first day of the Lunar New Year.

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揮春

　　　農曆歲末，人們會在家中張貼揮春。揮春上寫有祝福語，如財源廣進、花開富貴或身壯力健，期望為來年帶來好運，「出入平安」則會貼在門上。水上人亦沿襲此傳統，在漁船入口處張貼「一帆風順」等揮春。

Spring Scrolls

　　　On the last day of the lunar year, people put up spring scrolls around their houses. They are marked with the characters for such things as "May money and treasure be plentiful", "Fortune comes with blooming flowers", or "Be healthy and vigorous all year" and are thought to bring good luck in the coming year. Above the door is typically hung the phrase, "May all your comings and goings be peaceful". The Boat Dwellers participate in this tradition, hanging the phrase "May you have a favourable wind all the way" across the entrances to their fishing junks.

門神

　　　相傳，唐太宗(公元599－649年)曾受惡靈騷擾，徹夜難眠。一天晚上，唐太宗身邊的兩位大將秦叔寶及尉遲恭在寢宮門口把守，唐太宗因此能安然入睡。他便安排畫師替兩位將軍畫像，然後將他們的畫像張貼在寢宮門上，驅除惡靈。這種做法後來流傳至民間，時至今日，每年農曆歲末，人們都會在家中及公司門口張貼新的門神畫像。

Door Gods

　　　One legend tells how Emperor Tang Taizong (AD 559-649) could not sleep because he was haunted by restless spirits. One night, his two greatest generals, Qin Shubao and Yuchi Gong, guarded the palace door while he slept. The Emperor slept soundly, and out of gratitude for their deed had portraits of the two generals painted. These paintings were then hung over the doors of the palace to ward off evil spirits. This practice was adopted by the people, and each Lunar New Year a new pair of Door Gods are posted on the doors of houses and businesses.

Spring Scrolls 揮春

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萬事如意

Door Gods 門神

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Museum Owned Image

Appendix G: Salted Fish Game Script

歡迎！想與水上人一起製作鹹魚嗎？
漁船已萬事齊備，一起出發吧！做好捕魚的準備了嗎？按一下即可開始！

Welcome! Want to make some salted fish with the Boat Dwellers?
We have finished preparing the boat, so let's set sail! Ready to catch some fish? Click to start!

製作鹹魚
How to Make Salted Fish
按一下魚可將其捕獲！
Click on the fish to catch them!
下一步
Next
現在要除去魚鱗
Now remove the fish gills
按一下魚可除去魚鱗
Click on the fish to descale it
現在要清除魚的內臟
Remove the fish intestines
按一下魚可清除內臟
Click on the fish to gut it
現在加鹽
Now add salt
按一下「＋」標誌可加鹽
Click on the "+" sign to add salt
等待2天
Wait for 2 days
把魚身的鹽洗淨後，放在竹蓆上曬乾
After rinsing the fish, put them on the bamboo mats for drying in the sun
按一下魚可將其放在竹蓆上
Click the fish to lay them on the mats
曬乾需5天
It takes 5 days for them to dry
日照過強！
The sun is too strong!
曬製時要不時反轉魚身，以免太陽熱力將魚曬熟

Turn over the fish from time to time to avoid over heating

按一下反轉魚身

Click the fish to turn them over

有蒼蠅飛到魚身

Home flies are coming

用紙包裹魚頭，以放止蒼蠅在魚頭內產卵

Wrap the heads of the dried salted fish with paper so that the home flies cannot lay eggs inside

把製作完成的鹹魚吊起待售！

Now hung them up for sale!

返回主目錄

Back to Main Menu

重玩

Replay

中文版

Chinese version

得分

Credits
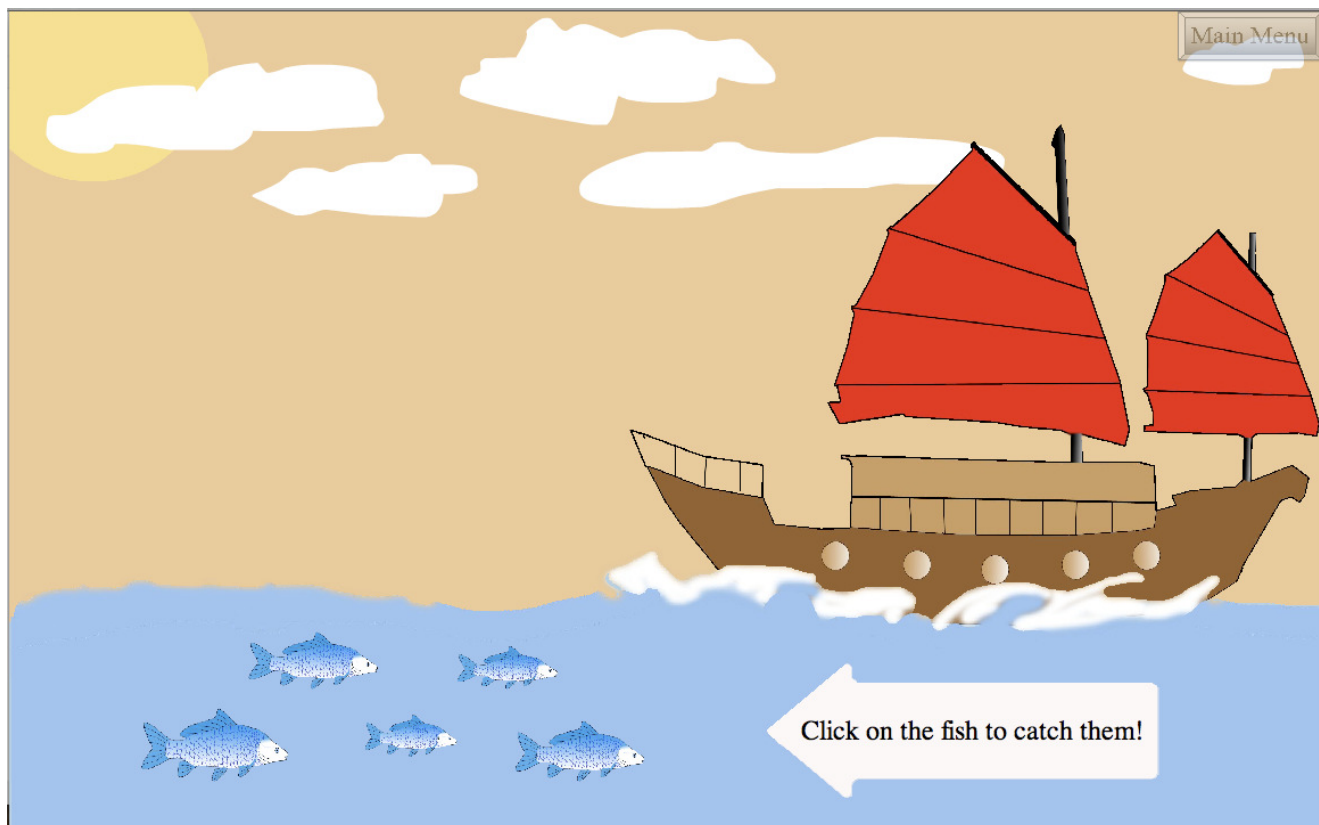
Appendix H: What Belongs? Script

選擇遊戲
Choose a game from below

展品那裏尋？
What Belongs?

客家人服飾－客家婦女傳統衣服。
Hakka Clothes: This is a traditional outfit for Hakka women.

花轎－根據傳統，新娘在婚禮當日乘轎前往新郎家中。
由數位轎夫抬轎及大妗姐一同前行，避免新娘接觸不祥的事物。
Bridal Sedan Chair – This was the chair in which the bride traditionally rode to the groom's house on the day of their wedding. It was carried by several bearers and accompanied by bridal matron, was meant to guard her from misfortune on her journey.

疏絲"裙褂 － 新娘在傳統婚禮中會穿著這種繡有龍鳳圖案的裙褂。
A shusi ('partly threaded')-style wedding costume worn by a bride, comprising a jacket and a skirt both embroidered with the "dragon-and-phoenix" motif.

風櫃－稻田收割後，農民會利用風櫃來清除夾雜在穀粒中的雜質。
Winnower – After harvesting, a winnower is used to screen out impurities from the grain.

福佬小童服裝－福佬小童穿著的服裝，色彩豔麗。
Hoklo Child Clothes – These colourful clothes were once worn by a Hoklo child.

銀鼎三角桌－銀鼎是傳統婚禮中的賀禮。
Silver Tripod – This is a wedding gift during a traditional marriage celebration.

正確！
Correct!

這件文物不屬於展區4。
This item does not belong to Gallery 4.

遊戲結束
Game Over

恭喜您！您已找到圖片庫4內的所有物品！
Congratulations! You found all the objects from Gallery 4!

總分
Total Score

香港歷 史博物館
Hong Kong Museum of History

Quiz Game:
問答遊戲

1) According to traditional stories, the Kitchen God travels to see the Jade Emperor on the 24th day of the last lunar month. What type of offerings should he be given so that he won't say bad things about humans?
-Incense
-Jade
-Glutinous or "sticky" rice
-Roast pig
Correct/Incorrect, an offering of glutinous or "sticky" rice will cause the Kitchen God's mouth to be stuck closed, preventing him from saying bad things about humans.

1)
據說灶君在農曆十二月廿四到天庭見玉皇大帝。為了不讓灶君說人間的壞話，應給灶君哪些供品？
－香燭
－玉器
－黏牙的甜食或黏米
－燒豬
正確／錯誤，供奉黏牙的甜食或黏米可以黏住灶君的嘴，以防灶君說人間的壞話。

2) How long does it take for salted fish to dry in the sun?
-5 hours
-1 day
-5 days
-1 week
Correct/Incorrect, it takes 5-6 days to dry salted fish. If the fish are in strong sun too long, the fish will be cooked.

2) 鹹魚需多長時間在日光下曬乾？
－5小時
－1天
－5天
－1周
正確／錯誤，曬乾鹹魚需要5－6天。如果日照過強，鹹魚會被曬熟，無法食用。

3) You are invited to a traditional Hoklo wedding. Which of these things do you expect to see there?

-A sedan chair

-A white wedding dress

-A dragon boat dance

-Spirit money

Correct/Incorrect, in a traditional Hoklo wedding the female members of the groom's family receive the bride with a ceremonial dragon boat dance.

3) 您獲邀參加福佬人的傳統婚禮。您將看到下列哪項？

－花轎

－白色婚紗

－龍船舞

－冥幣

正確／錯誤，在福佬人的傳統婚禮上，新郎家中的女性成員會跳龍船舞迎接新娘。

4) According to traditional beliefs, during which lunar month do angry ghosts come to the world of the living?

-5th

-7th

-8th

-9th

Correct/Incorrect, during the 7th lunar month the gates to the underworld are believed to open, allowing the hungry ghosts to accept the offerings presented during the Hungry Ghost Festival.

4) 根據傳統觀念，餓鬼會在哪個農曆月份來到人間？

－五月

－七月

－八月

－九月

正確／錯誤，農曆七月，陰間鬼門大開，餓鬼可在鬼節期間接受供品。

5) Legend associates Qu Yuan with the origin of the Dragon Boat Festival. What other occupation is this man famous for?
-poet
-lieutenant
-teacher
-painter
Correct/Incorrect, Qu Yuan was a famous and popular poet.

5) 屈原與端午節的起源有關。屈原還有什麼身份而著名？
－詩人
－武將
－教師
－畫家
正確／錯誤，屈原還是著名的詩人。

6) The Tin Hau Festival is an important festival to the Boat Dwellers. According to one legend, who was Tin Hau before she was canonized?
-a farmer
-an officer's wife
-a princess
-a fisherman's daughter
Correct/Incorrect, according to one legend, Tin Hau was once the daughter of a fisherman named Lin.

6) 天后誕是水上人的重要節日。根據傳說，天后被封神前是什麼身份？
－農民
－官員之妻
－公主
－漁民的女兒
正確／錯誤，根據傳說，天后曾是姓林的漁民的女兒。

7) How many bamboo sticks are usually used in the *kau cim* fortune telling method?

-164

-100

-50

-28

Correct/Incorrect, the *kau cim* fortune telling method typically uses 100 bamboo sticks to predict people's fortunes.

7) 求籤算命時一般用多少支籤？

－164

－100

－50

－28

正確／錯誤，求籤算命一般用100支籤預測運勢。

8) According to legend, when Kwun Yam was still human she gave the first feast for the hungry ghosts, but they behaved very badly. Who did she ask to attend her next feast in order to make the ghosts behave themselves?

-Dashiwang

-Tin Hau

-The Three-Legged Frog

-Qu Yuan

Correct/Incorrect, according to the legend, Kwun Yam asked Dashiwang to attend the feast and the ghosts then behaved better. Dashiwang now attends various Hungry Ghost festivals as a giant paper figure to watch over the proceedings.

8) 根據傳說，觀音第一次為餓鬼準備食物時，餓鬼秩序混亂。後來，
觀音邀請誰來維持秩序？

－大士王

－天后

－三腿蟾蜍

－屈原

正確／錯誤，根據傳說，觀音請大士王來維持秩序。人們在盂蘭勝會豎立巨型的大士王紙像，監督祭祀儀式。

9) In the legend, by what method did Zhu Yuanzhang secretly tell his friends and relatives to revolt against the Yuan government on the 15th day of the 8th lunar month?

-lantern light code

-email

-messages inside mooncakes

-messages on the back of the Three-Legged Frog

Correct/Incorrect, Zhu Yuanzhang sent secret messages in mooncakes by utilizing the Mid-Autumn festival tradition of exchanging mooncakes among friends and relatives.

9) 根據傳說，朱元璋用什麼方式密告親友在農曆八月十五起義反元？

－燈籠信號

－電郵

－月餅內的紙條

－三腿蟾蜍背後的紙條

正確／錯誤，朱元璋利用中秋節親朋好友之間交換月餅的習俗，將紙條藏在月餅中傳遞密函。

Score: 40　　　　　Main Menu
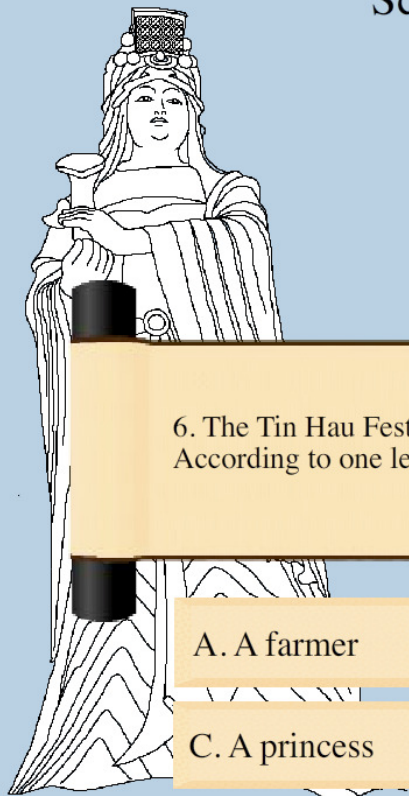
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A. A farmer

B. An officer wife

C. A princess

D. A fisherman's daughter

Instructions:

您現在身處過去的香港，準備前往長洲參加搶包山慶典。為抵達目的地長洲，請先閱讀遊戲指引開始旅程，穿越不同民俗區域。祝您好運！

遊戲說明：

1) 選擇一隻棋子放在開始區域。
2) 玩家輪流擲骰子。點數最高的先出發；點數第二高的玩家緊隨其後；如此類推。如點數相同，可再次擲骰。
3) 遊戲時，按擲骰的點數前進。
4) 如停在民俗區上，須遵循民俗區內的指示行動。
5) 首先到達終點的玩家可率先搶得包山上的包。
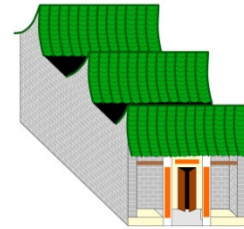
You are living in Hong Kong in the past and want to travel to Cheung Chau to attend the Bun Festival. In order to get there, first read the game instructions and then begin your journey through the different cultural territories. Good luck!

Instructions for the board game:
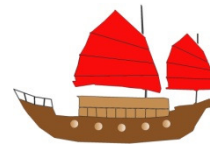
1) Place a token for each player on the start space.
2) Each player rolls the dice. The player with the highest number goes first; the player with the second highest number goes second; and so on. If two people roll the same number they have to roll again.
3) To play, the first player rolls the dice and moves that number of spaces on the board.
4) If you land on a Culture Space do as the space tells you. Then it is the next player's turn.
5) The first player to reach the end gets first pick of the buns of the Bun Mountain.
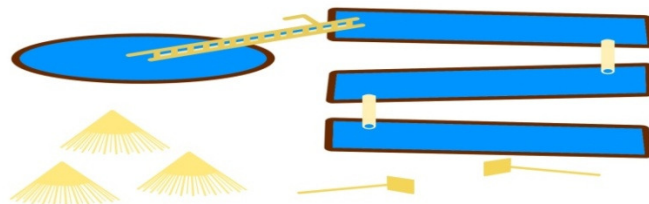
客家民居：
客家民居建築注重實用功能，可抵禦盜匪滋擾。客家人以務農為主，辛勤勞作，種植稻米。根據客家傳統，女人要料理家務，還要下田幹活。

Hakka House:
The Hakka people lived in practical houses that were built to protect them from bandits. The Hakka were mainly farmers and they worked hard to grow and harvest rice. The Hakka women were expected to take care of the house and to work in the fields during the day.

宗祠：
宗祠是本地氏族成員聚會的重要地點。氏族成員在宗祠拜祭祖先、解決氏族糾紛，並舉行各種儀式。點燈儀式即是其中之一，當有一個新男孩出生，便會為其點燃一盞燈籠。隨後，新生的男孩便成為氏族一員。

Ancestral Hall:
This building was an important meeting place for members of a Punti clan. Clan members would meet here to worship the ancestors, settle clan disputes and hold ceremonies. One of the latter was the Lantern-Lighting Ceremony, where a lantern would be lit for a newborn boy. The boy would then be initiated into the clan.

福佬鹽場：
鹽場是很多福佬人生活的重要組成部分。僅在農曆九月至十二月乾燥的季節才能製鹽。福佬人將海水引入鹽池，借助日照讓水份蒸發。海水蒸發後，將鹽堆積貯存，供日後出售。

Hoklo Salt Field:
The salt fields were an important part of many Hoklo people's lives. Salt making could only be conducted during the dry season, from the 9th to the 12th lunar months. The Hoklo workers would fill pools with sea water and let the water evaporate in the sun. After enough water had evaporated from the last pool, the Hoklo workers would rake the salt into piles and store it to sell later.

水上人的漁船
水上人主要在船上居住，只有在賣魚或購買生活必需品時才上岸。漁船船頭位置用以祈福及拜神，船尾甲板下方用來存放魚獲。水上人認為左吉右凶，故廚房設在左方，廁所則設在右方。

Boat Dweller Ship:
The Boat Dwellers lived mainly on their ships and travelled on land only to sell their fish or buy necessary items. The front of the boat was where prayers and worship of the gods occurred, while at the back the fish were caught and stored below deck. The left side of the boat was thought to be the good side and the kitchen was there. The right side of the boat was the bad side and the toilet was there.

Game Board Spaces:

客家人
Hakka People

不小心推倒客家婦女的磚塊，須用腳揉泥，替她製作新的磚塊。失去1次擲骰機會。
You knocked over a Hakka woman's pile of bricks and had to help knead mud with your feet to make new bricks. Lose 1 turn.

到客家村榨甘蔗，但昨晚把甘蔗掉在路上，必須找回甘蔗。後退1步。
You dropped the sugarcane that you needed to grind at a Hakka village last night and you had to go back to find it. Move back 1 space.

水上人
Boat Dwellers

烈日當空，忘記為鹹魚不斷翻身，使鹹魚曬熟。須再次製作鹹魚。失去1次擲骰機會。
You forgot to turn over the salted fish from time to time in the strong sun and they were cooked. You had to make them again. Lose 1 turn.

為水上人編製捕魚用的新漁網，被邀請乘船前行。前進1步。
You wove a new net to catch fish for a Boat Dweller and they gave you a ride. Move ahead 1 space.

本地人
Punti People

幫助本地村鎮收割稻米。得本地人借馬代步。前進1步。

You helped the Punti village people harvest their rice crops. To express their thanks they let you borrow a horse. Move ahead 1 space.

為避免遇到盜匪，在圍村內過夜。失去1次擲骰機會。
You had to take shelter in a walled Punti village for the night to be safe from bandits. Lose 1 turn.

福佬人
Hoklo People

忘記用稻草蓋好鹽堆，後來下雨了，鹽堆全毀。失去1次擲骰機會。
You forgot to cover a salt pile with straw and it rained. The salt was ruined. Lose 1 turn.

獲邀出席福佬人的傳統婚禮，欣賞龍船舞，大開眼界。前進1步。
You were invited to attend a traditional Hoklo wedding and you enjoyed the dragon boat dance. Move ahead 1 space.

<u>貼揮春　Spring Scrolls:</u>

農曆歲晚，家家戶戶會在門口或家中張貼揮春，以下為一些祝福的話語：

On the Chinese New Year's Eve, people hang Spring Scrolls on their doors or around their homes. You have been given some examples of these papers. On them are written the following phrases:

財源廣進　　Wealth

長命百歲　　Longevity

多子多福　　The gift of sons

萬事如意　　May all your comings and goings

　　　　　　be peaceful

一路順風　　May you have a favorable wind

　　　　　　all the way

請使用為您提供的素材，自由設計您自己的揮春，將好運帶回家中！
Using the materials provided, feel free to create your own Spring Scrolls to take home with you!

為門神填色 Door God Coloring

年近歲晚，家家戶戶會在門上繪製或張貼新門神，祈求庇佑。請用提供的材料為門神填上顏色。

At the end of the Lunar Year, new Door Gods are painted on or put up on doors to guard the household. Colour your own Door Gods with the materials provided.

Instructions for fortune telling

算命說明

1) Shake the container until one of the sticks emerges slightly

   搖動籤筒，一支竹籤向外伸出即止
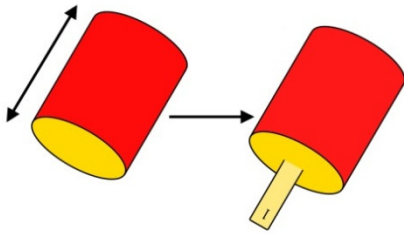
2) Look at the number on the stick

   看清楚籤上的數字
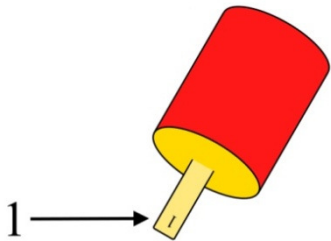
3) Match the number with the appropriately numbered *cim*

   根據數字找到對應的籤文
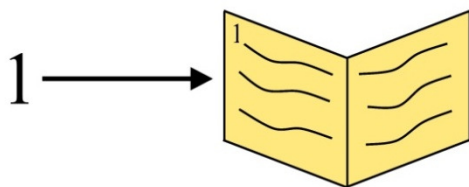
Fortune telling messages:

籤文：

財富：

Wealth:

1) 謹慎理財，才會有豐厚收入。

1) Be careful with your money for better gain this year.

2) 今年收入不錯。

2) Financial gain will be seen this year.

人際關係：

Relationships:

1) 今年您的人際關係十分良好。

1) Your interpersonal relationships will blossom in this year.

2) 今年您的人際關係不甚理想，宜多加注意與人相處的技巧。

2) Your interpersonal relationships will not be as good as last year. Pay more attention to the interpersonal skills.

運氣：

Luck:

1) 您的運氣自去年開始漸入佳景，今年的運氣將會達到頂峰。

1) Your luck has improved greatly since last year. This is your year to shine.

2) 今年您的運氣平平。

2) This year your luck will be neutral, neither very good nor very bad.

丟失物品：

Missing things:

1) 如果您耐心尋找，將找回丟失物品。

1) You will find any missing items if you keep searching.

2) 您今年丟失的物品可能無法尋回。

2) Any items that are missing may not be found in this year.

旅行：

Travel:

1) 您今年適合旅行；可盡情外出遊覽。

1) Travel will be good for you this year; go out and explore.

2) 長途旅行會使您很疲累。

2) You will get very tired of taking faraway trips.

健康：

Health:

1) 您今年的健康狀況不錯。

1) You will be very healthy this year.

2) 您今年應注意健康，有可能生病。

2) Be careful with your health this year, for there is a chance of getting sick.

Spreadsheet of Random Combinations of Fortunes

1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	2	1	2	2	2	1	2	2	2	1	2	2	2
1	1	1	1	2	1	1	1	2	2	2	2	1	1
2	1	1	2	2	1	1	1	2	1	2	2	1	1
2	2	1	1	2	1	2	1	1	2	2	1	2	1
1	1	1	2	1	1	2	2	1	1	2	2	1	2
2	1	2	1	2	2	2	1	2	2	2	1	2	1

15	16	17	18	19	20	21	22	23	24	25	26	27	28
2	1	1	1	2	1	1	2	1	2	2	1	1	1
1	2	2	2	1	2	1	2	2	1	1	2	2	2
2	2	1	2	1	2	1	1	2	2	2	2	1	1
1	2	2	1	2	1	1	1	2	1	1	2	1	1
1	1	2	2	2	1	2	1	2	1	2	1	1	1
1	1	1	1	2	1	1	2	1	2	2	1	2	1

1) Wealth

 財富

> Be careful with your money for a better gain this year.
> 謹慎理財，才會有豐厚收入。

Relationships

 人際關係

> Your interpersonal relationships will blossom in this year.
> 今年您的人際關係十分良好。

Luck

運氣

> This year your luck will be neutral, neither very good nor very bad.
> 今年您的運氣平平。

Missing things

丟失物品

> Any items that are missing may not be found in this year.
> 您今年丟失的物品可能無法尋回。

Travel

旅行

> Travel will be good for you this year; go out and explore.
> 您今年適合旅行；可盡情外出遊覽。

Health

健康

> Be careful with your health this year, for there is a chance of getting sick.
> 您今年應注意健康，有可能生病。

互動遊戲問卷調查：

Interactive Activities Survey:

請完成下列問卷。您的意見對提升展區四(香港的民俗)的互動活動教育元素非常重要。

Please complete the following survey. Your opinion is important for the quality and improvement of the Educational Centre for Gallery 4

請在為下列遊戲評級。如您未曾參與遊戲，請不要圈選任何數字。

Please rate the following games using the scale provided below. If you did not play the game please do not circle any numbers.

	根本不／無	1	2	3	4	5	非常
	Not/None at All	1	2	3	4	5	Very Much

	棋盤遊戲 Board Game	門神 Door Gods	揮春 Spring Scrolls	求籤算命 Kau Cim Fortune Telling
您喜歡遊戲的設計嗎？ How much did you like how this game looked?	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
遊戲是否簡明易玩？ Was it easy to play this game?	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
透過玩遊戲， 您能增進新知識嗎？ How many new things did you learn by playing this game?	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
遊戲的說明容易理解嗎？ Was it easy to understand the instructions for this game?	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
遊戲中的文字容易閱讀嗎？ Was it easy to read the writing in this game?	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
您認為遊戲好玩嗎？ How much fun did you have while playing this game?	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

您認為遊戲有何處需要改善？**Any suggestions for improving our activities?**

年齡 **Age**: 6-8   9-14   15-20   21-30   31+   性別 **Gender**:   男Male   女Female

Thank you for your time and input!

互動遊戲問卷調查：

Interactive Activities Survey:

請完成下列調查。您的意見對提升展區四的教育元素非常重要。

Please complete the following survey. Your opinion is important for the quality and improvement of the Educational Centre for Gallery 4

請為下列遊戲評級，1代表根本不/無，5代表非常。如您未曾參與遊戲，請不要圈選任何數字。

Please rate the following games using the scale provided below, where 1 is Not/None at All and 5 is Very Much. If you did not play the game please do not circle any numbers.

根本不／無　1　　2　　3　　4　　5　　非常
Not/None at All　　1　　2　　3　　4　　5　　Very Much

	展品那裏尋 What does not belong	問答遊戲 Quiz game	鹹魚 Salted fish
您喜歡遊戲內的圖片的嗎？ How much did you like the pictures in this game?	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
遊戲能令您認識香港的傳統文化嗎？ How much do you think you have learnt about Hong Kong Folk Culture by playing this game?	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
遊戲中的資訊能容易傾聽／閱讀嗎？ Was it easy to listen to/read the information in this game?	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
您認為遊戲好玩嗎？ How much fun did you have while playing this game?	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

您認為電腦遊戲有何處需要改善？

Any suggestions for improving our computer games?

年齡 **Age**:　6-8　9-14　15-20　21-30　31+　　　性別 **Gender**:　男Male　　女Female

感謝您拿出寶貴時間參與調查！**Thank you for your time and input!**

展板內容問卷調查：
Informational Display Survey:

請完成下列問卷調查。您的意見對提升展區四(香港的民俗)的互動活動教育元素非常重要。

Please complete the following survey. Your opinion is important for the quality and improvement of the Educational Centre for Gallery 4.

請在提供的評定範圍內為下列展板內容評級，1代表不／沒有，5代表非常。如您未曾參與個別展板內容，請不要圈選任何數字。

Please rate the following displays using the scale provided below, where 1 is Not/None at All and 5 is Very Much. If you did not read the displays please do not circle any numbers.

不／沒有	1	2	3	4	5	非常
Not/None at All	1	2	3	4	5	Very Much

	揮春/ 門神 Spring Scrolls/ Door Gods	求籤算命 Kau Cim fortune telling
您喜歡展板內的圖片嗎？ Did you like the pictures in this display?	1 2 3 4 5	1 2 3 4 5
透過閱讀展板內容，您能增進新知識嗎？ How many new things did you learn from reading the display?	1 2 3 4 5	1 2 3 4 5
展板內容容易理解嗎？ Was it easy to read the content of display panel?	1 2 3 4 5	1 2 3 4 5

感謝您拿出寶貴時間參與調查！**Thank you for your time and input!**

	農曆 新年/ 灶君 Lunar New Year Festival/ Kitchen God	中秋節中秋節/盂蘭節 (或稱鬼節) Mid-Autumn Festival/ Hungry Ghost Festival	端午節/ 天后誕 Dragon Boat Festival/ Tin Hau Festival
您喜歡展板內的圖片嗎？ Did you like the pictures in this display?	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
透過閱讀展板內容，您能增進新知識嗎？ How many new things did you learn from reading the display?	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
展板內容容易理解嗎？ Was it easy to read the content of display panel?	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

您認為展板有甚麼需要改善的地方呢？
Any suggestions for improving our displays?

年齡 **Age**: 6-8   9-14   15-20   21-30   31+   性別 **Gender**:   男Male   女Female

感謝您拿出寶貴時間參與調查！**Thank you for your time and input!**

可選教育內容調查：

請回答以下問題。您的意見對提升展區四的教育元素非常重要。

Optional Educational Content Survey:

Please answer the following questions. Your opinion is important for the quality and improvement of the Education Room for Gallery 4

問題：

Questions:

1) 農曆 新年前一週，灶君需要做什麼？

　　◯ 灶君會保佑廚房，讓新年的食物更可口。

　　◯ 灶君會向玉皇大帝報告人間的善惡。

　　◯ 灶君會到月亮為農曆 新年收取肉桂。

　　◯ 因為人們為準備過年在廚房做菜，過於吵鬧，灶君會返回天上。

1) What does the Kitchen God do one week before the Lunar New Year?

　　◯ He wakes up and blesses the kitchen so that New Year food will be extra sweet.

　　◯ He reports to the Jade Emperor about the good and bad deeds of humans.

　　◯ He visits the moon to harvest cinnamon for the Lunar New Year.

　　◯ He flees to the heavens because of all the noise in the kitchen when people prepare food for the Lunar New Year.

2) 誰第一次為餓鬼提供食物，開始盂蘭節（鬼節)的傳統？

　　◯ 鬼王

　　◯ 觀音

　　◯ 玉皇大帝

　　◯ 天后

2) Who gave the first feast to the angry spirits and started the Hungry Ghost Festival?

　　◯ Dashiwang

　　◯ The Goddess of Mercy

　　◯ The Jade Emperor

　　◯ Tin Hau

感謝您拿出寶貴時間參與調查！**Thank you for your time and input!**

可選教育內容調查：

請回答以下問題。您的意見對提升展區四的教育元素非常重要。

Optional Educational Content Survey:

Please answer the following questions. Your opinion is important for the quality and improvement of the Education Room for Gallery 4

3) 相傳朱元璋用月餅來做什麼？
   ○ 治病良藥
   ○ 擊敗刺客
   ○ 求得兄弟的原諒
   ○ 向好友送達密信

3) What did Zhu Yuanzhang use mooncakes for?
   ○ As medicine to help cure the sick
   ○ To defeat an assassin sent to kill him
   ○ As a way to get his brother to forgive him
   ○ To pass secret messages to his friends

4) 求籤算命時一般用多少支籤？
   ○ 28
   ○ 100
   ○ 78
   ○ 54

4) How many bamboo sticks are usually used in the *Kau Cim* fortune telling method?
   ○ 28
   ○ 100
   ○ 78
   ○ 54

感謝您拿出寶貴時間參與調查！**Thank you for your time and input!**

可選教育內容調查：

請回答以下問題。您的意見對提升展區四的教育元素非常重要。

Optional Educational Content Survey:

Please answer the following questions. Your opinion is important for the quality and improvement of the Education Room for Gallery 4

請完成以下調查，在1－5的範圍內予以評定，1代表「並不熟悉」，5代表「非常熟悉」：

Using a scale of 1-5, where 1 is "not very familiar" and 5 is "very familiar", please complete the following survey:

您對下列活動或習俗熟悉嗎？

How familiar are you with each of these events or customs?

節日／習俗 Festival / Custom	熟悉程度 How familiar				
農曆 新年Lunar New Year	1	2	3	4	5
中秋節Mid-Autumn Festival	1	2	3	4	5
端午節Dragon Boat Festival	1	2	3	4	5
盂蘭節（鬼節）Hungry Ghost Festival	1	2	3	4	5
天后誕Tin Hau Festival	1	2	3	4	5
求籤算命 *Kau Cim* Fortune Telling	1	2	3	4	5
門神Door Gods	1	2	3	4	5
揮春 Spring Scrolls	1	2	3	4	5

年齡**Age**: 6-8   9-14   15-20   21-30   31+ 性別**Gender**:   男Male   女Female

感謝您拿出寶貴時間參與調查！**Thank you for your time and input!**

Date: Time Interval: Observer:

Entire Room Evaluation:

Indicate a person with a dashed line:

Number of Individuals who spent _____ much time in the Education Corner:

Less than 1 minute	Between 1-3 minutes	3-10 minutes	10-20 minutes	Over 20 minutes

Total number of people attracted to the Exhibit = _____

Any comments? (ex. Kids couldn't stop playing the board game)

Number of individuals who were attracted to games (looked at for at least 5 seconds):

Door Gods/Spring Scrolls	Board Game	Computer	Fortune Telling

Comments?

Display Evaluation:

Number of individuals who were attracted to a display (moved in front of to see):

Spring Scrolls/ Door Gods	Lunar New Year	Fortune Telling	Dragon Boat/ Tin Hau	Hungry Ghost/ Mid-Autumn

Comments?   →

Number of individuals who read/paid attention to the display (looked at for at least 50 seconds):

Spring Scrolls/ Door Gods	Lunar New Year	Fortune Telling	Dragon Boat/ Tin Hau	Hungry Ghost/ Mid-Autumn

Comments?

Displays that encouraged social interaction (interaction indicated by conversing or pointing while reading displays):

Spring Scrolls/ Door Gods	Lunar New Year	Fortune Telling	Dragon Boat/ Tin Hau	Hungry Ghost/ Mid-Autumn

Comments?

Were any of the displays, games, or activities damaged during this time interval? If so, which one and how was it damaged?

<u>Hands-on Games Evaluation:</u>

Number of individuals who didn't understand/used the game improperly:

Door Gods/Spring Scrolls	Board Game	Fortune Telling

Comments?

Number of individuals that engaged in social interaction while playing _____ (interaction indicated by conversing, working together, or playing together):

Door Gods/Spring Scrolls	Board Game	Fortune Telling

Comments?

Number of individuals who spent_____ time on the **Door Gods/ Spring Scrolls** activities (only record first play for each individual):

Less than 1 minute	Between 1-4 minutes	Between 4 -7 minutes	Between 7-10 minutes	Over 10 minutes

Total number who played over 1 minute = _____

Multiple times playing tally:

Did any parents/adults play the game *and* interact with the children (tally)?:

Comments?   →

Number of individuals who spent_____ time on the **Board Game** (only record first play for each individual):

Less than 1 minute	Between 1-4 minutes	Between 4 -7 minutes	Between 7-10 minutes	Over 10 minutes

Total number who played over 1 minute = _____

Multiple times playing tally:

Did any adults play the game *and* interact with the children (tally)?:

Comments?

Number of individuals who spent_____ time on the **Fortune Telling** game (only record first play for each individual):

Less than 30 seconds	Between 30 seconds & 1 minute	Between 1 & 2 minutes	Between 2 & 3 minutes	Over 3 minutes

Total number who played over 30 seconds = _____

Multiple times playing tally:

Did any adults play the game *and* interact with the children (tally)?:

Comments?

Computer Evaluation:

Number of individuals who didn't understand/used the game improperly:

Salted Fish	What Belongs	Quiz

Comments?

Number of individuals that engaged in social interaction while playing _____ (interaction indicated by conversing, working together, or playing together):

Salted Fish	What Belongs	Quiz

Comments?

Number of individuals who spent _____ time on the **Salted Fish** game (only record first play for each individual):

Less than 30 seconds	Between 30 seconds & 1 minute	Between 1 & 2 minutes	Between 2 & 3 minutes	Over 3 minutes

Total number who played over 30 seconds = _____

Multiple times playing tally:

Did any adults play the game and interact with the children (tally)?:

Comments?   →

Number of individuals who spent_____ time on the **What Belongs** game (only record first play for each individual):

Less than 30 seconds	Between 30 seconds & 1 minute	Between 1 & 2 minutes	Between 2 & 3 minutes	Over 3 minutes

Total number who played over 30 seconds = _____

Multiple times playing tally:

Did any adults play the game and interact with the children (tally)?:

Comments?

Number of individuals who spent_____ time on the **Quiz** game (only record first play for each individual):

Less than 30 seconds	Between 30 seconds & 1 minute	Between 1 & 2 minutes	Between 2 & 3 minutes	Over 3 minutes

Total number who played over 30 seconds = _____

Multiple times playing tally:

Did any adults play the game and interact with the children (tally)?:

Comments?

Sign placed outside of the Education Corner

教育角開放時間：

星期一及三至五
上午十時至中午十二時；
下午二時至下午四時

Opening hours for the Education Centre:

The Education Centre will be open on a trial basis from 10:00 A.M. until 12:00 P.M and 2:00 P.M. until 4:00 P.M on Monday, Tuesday, Wednesday Thursday and Friday.

Sign placed on the table with the surveys

請填寫問卷，您的意見對提升展區四(香港的民俗)的互動活動教育元素非常重要。
完成問卷後，將可獲贈紀念品乙份。每人只可填寫一份問卷，多謝合作。

Please take one of the surveys to improve the quality of the Education Centre. After completing one survey you will receive one free souvenir. Only one souvenir will be given out to each person. Thank you for all your help.

Appendix R: General Recommendations for Education Centre

Aesthetics

Table Covers: The Education Centre currently has paper mats covering each of the tables where the activities are placed. While this is a cheap and effective method of protecting the tabletops, children often write upon them with one of the many crayons and pens available in the room. Though this graffiti is typically harmless, it makes the tables appear messy and poses a liability to the Museum if someone were to write or draw something offensive. We recommend that an alternative table cover such as a plastic mat or tablecloth is used, as these would be both cheap and durable while deterring children from drawing on them.

Waste Baskets: Although visitors often choose to make one or more spring scrolls or door gods at the tables, they will not always take them home. When multiple people leave papers on the table they can accumulate and make a mess for other visitors who come afterwards. In order to minimize the mess left behind, adding a waste basket by each of the activities would allow them to throw out unwanted papers and avoid clutter on the tables.

Advertisement: Since the Education Centre in its current function is so new, many people are still unfamiliar with it, and visitors are often unsure whether it is open to the public. We believe that by placing a sign out in front of the room inviting children and their families in to participate in the activities would help to make it more appealing. By adding it to the Museum's map, as well as including it on the docent and school-group tours and even adding an entry on it to the audio tour, it can be visited by far more people and be a great deal more effective in teaching its content.

Room Layout

Television: Although the television in the Education Centre is bulky and the Museum may have a hard time finding an alternative place to put it, the room would likely benefit from its removal. Visitors often comment on it upon entering the room, and several have said that it is out of placed in a room promoting cultural history and festivals. Additionally, it poses an unnecessary liability to the Museum as it could easily be knocked over by visitors when the room is crowded, posing a danger to both them and those around them. In lieu of outright removing the television, another possible solution would be to simply cover it with a sheet, which would hide it from the visitors' view.

Decorations: Since the majority of the activities and educational exhibitions in the Education Centre involve reading or writing, they benefit from having sufficient lighting so that the visitors can see them clearly. Unfortunately the Education Centre is lit by only a few overhead lights, which causes much of the room to be somewhat dim and hard to see in. By adding more lights and brightening the room, the visitors could more easily read the displays and the instructions to each of the activities. Additionally, much of the room is still blank, with very few decorations on the wall and ceiling. By making it more colorful and adding to the festival theme, we believe that the Museum could make the room more attractive to visitors.

Seating: The seating in the Education Centre is very important, as we expect all visitors to be seated while participating in our activities. Although the previous benches were somewhat unstable, the newer benches are much wider and sturdier. They are not, however, completely safe, as we have seen people still knock them over easily while walking next to them or standing up from them, which poses a liability to the Museum. Small children, as well, have a hard time getting on and off the benches, and with no backing they can be highly dangerous for them to sit on. We recommend that the Museum tries to make the benches a bit safer, either by adding seat backs to them, making them more sturdy, or even buying newer, safer models if need be.

Wall Hanging: During the first few days of evaluation, we allowed children to display their spring scrolls and door gods on the wall. Several people took this opportunity, and often took pictures with their creations before leaving them up there for other people to see. We felt that this was a very beneficial component to these activities, although it was found that taping and removing the sheets on the wall could damage the room. If at all possible, we recommend that the museum put in a wall, sheet, or some other covering on the wall so that it could be protected and still allow children to continue hanging up their drawings. We saw multiple children do this in our evaluation of exiting games in the "French Revolutions" exhibit, and feel that the Education Centre would benefit from it as well.

Appendix S: School Group Schedule

*K = Kindergarten

*P = Primary

#	School Category	Number of students
12/2/2009		
1	*K	40
2	*P	42
3	P	174
4	P	140
5	International school	132
6	K	70
7	Australian international school	97
8	College	78
9	College	43
10	College	37
11	College	26
12	Church	32
13/2/2009		
13	P	90
14	S	84
15	P	83
16	S	112
17	P	76

18	P	165
19	Church	35
20	K	100
21	Centre	56
22	P	90
23	S	102
24	S	127
25	S	20
26	P	68
16/2/2009		
27	P	100
28	K	80
29	P	74
30	P	70
31	P	136
32	S	35
33	K	56
34	Centre	43
35	S	128
36	S	37
37	S	40

Appendix T: Computer Code

```
//stop music
stop();
stopAllSounds();

//go to frame X
on (release){
        gotoAndPlay(1);
}
on (release){
        gotoAndPlay(2);
}
on (release){
        gotoAndPlay(3);
}
on (release){
        gotoAndPlay(4);
}
on (release){
        gotoAndPlay(5);
}
on (release){
        gotoAndPlay(6);
}
on (release){
        gotoAndPlay(7);
}
on (release){
        gotoAndPlay(8);
}
on (release){
        gotoAndPlay(9);
}

on (release){
        gotoAndPlay(10);
}
on (release){
```

```
        gotoAndPlay(11);
}
on (release){
        gotoAndPlay(12);
}
on (release){
        gotoAndPlay(13);
}
on (release){
        gotoAndPlay(14);
}
on (release){
        gotoAndPlay(15);
}
on (release){
        gotoAndPlay(16);
}
on (release){
        gotoAndPlay(17);
}
on (release){
        gotoAndPlay(18);
}
on (release){
        gotoAndPlay(19);
}
on (release){
        gotoAndPlay(20);
}
on (release){
        gotoAndPlay(21);
}
on (release){
        gotoAndPlay(22);
}
on (release){
        gotoAndPlay(23);
}
on (release){
        gotoAndPlay(24);
```

```
}
on (release){
        gotoAndPlay(25);
}
on (release){
        gotoAndPlay(26);
}
on (release){
        gotoAndPlay(27);
}
on (release){
        gotoAndPlay(28);
}
on (release){
        gotoAndPlay(29);
}
on (release){
        gotoAndPlay(30);
}
on (release){
        gotoAndPlay(31);
}
on (release){
        gotoAndPlay(32);
}
on (release){
        gotoAndPlay(33);
}
on (release){
        gotoAndPlay(34);
}
on (release){
        gotoAndPlay(35);
}
on (release){
        gotoAndPlay(36);
}
on (release){
        gotoAndPlay(37);
}
```

```
on (release){
        gotoAndPlay(38);
}
on (release){
        gotoAndPlay(39);
}
on (release){
        gotoAndPlay(40);
}
on (release){
        gotoAndPlay(41);
}
on (release){
        gotoAndPlay(42);
}
on (release){
        gotoAndPlay(43);
}
on (release){
        gotoAndPlay(44);
}
on (release){
        gotoAndPlay(45);
}
on (release){
        gotoAndPlay(46);
}
on (release){
        gotoAndPlay(47);
}
on (release){
        gotoAndPlay(48);
}
```

Test Your Knowledge

Layer 16: Frame 23

```
stop();
```

```
//declare total score variable
var total = 0;

this.onEnterFrame = function(){

        var score = 0;

        quizmain.onRelease = function(){
                gotoAndPlay(1);
        }

        quizenglish.onRelease = function(){
                gotoAndPlay(24);
        }

        quizchinese.onRelease = function(){
                gotoAndPlay(34);
        }

}
```

Layer 16: Frame 24

```
stop();
        incorrect._visible = false;
        btnnext._visible = false;
        correct1._visible = false;

onEnterFrame = function(){

        onea.onRelease = function(){
                onea._visible = false;
                total -= 10;
        }

        oneb.onRelease = function(){
                oneb._visible = false;
                total -= 10;
        }
```

```
        oned.onRelease = function(){
                oned._visible = false;
                total -= 10;
        }

        if(!(onea._visible) || !(oneb._visible) || !(oned._visible)){
                incorrect._visible = true;
        }

        onec.onRelease = function(){
                star._visible = false;
                total += 10;
        }

        if(!star._visible){
                correct1._visible = true;
                incorrect._visible =false;
                btnnext._visible = true;
                onec.enabled = false;

                if(onea._visible){
                        onea._visible = false;
                }
                if(oneb._visible){
                        oneb._visible = false;
                }
                if(oned._visible){
                        oned._visible = false;
                }
                }

}
```

Layer 16: Frame 25

```
stop();
incorrect2._visible = false;
btnnext._visible = false;
correct2._visible = false;
```

```
onEnterFrame = function(){

        twoa.onRelease = function(){
                twoa._visible = false;
                total -= 10;
        }

        twob.onRelease = function(){
                twob._visible = false;
                total -= 10;
        }

        twod.onRelease = function(){
                twod._visible = false;
                total -= 10;
        }

        if(!(twoa._visible) || !(twob._visible) || !(twod._visible)){
                incorrect2._visible = true;
        }

        twoc.onRelease = function(){
                star2._visible = false;
                total += 10;
        }

        if(!star2._visible){
                correct2._visible = true;
                incorrect2._visible =false;
                btnnext._visible = true;
                twoc.enabled = false;

                if(twoa._visible){
                        twoa._visible = false;
                }
                if(twob._visible){
                        twob._visible = false;
                }
                if(twod._visible){
                        twod._visible = false;
```

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```
                }
                }
}


Layer 16: Frame 26

stop();
incorrect3._visible = false;
btnnext._visible = false;
correct3._visible = false;

onEnterFrame = function(){

        threea.onRelease = function(){
                threea._visible = false;
                total -= 10;
        }

        threeb.onRelease = function(){
                threeb._visible = false;
                total -= 10;
        }

        threed.onRelease = function(){
                threed._visible = false;
                total -= 10;
        }

        if(!(threea._visible) || !(threeb._visible) || !(threed._visible)){
                incorrect3._visible = true;
        }

        threec.onRelease = function(){
                star3._visible = false;
                total += 10;
        }

        if(!star3._visible){
                correct3._visible = true;
                incorrect3._visible =false;
```

```
                btnnext._visible = true;
                threec.enabled = false;

                if(threea._visible){
                        threea._visible = false;
                }
                if(threeb._visible){
                        threeb._visible = false;
                }
                if(threed._visible){
                        threed._visible = false;
                }
        }
}
```

Layer 16: Frame 27

```
stop();
incorrect4._visible = false;
btnnext._visible = false;
correct4._visible = false;

onEnterFrame = function(){

        foura.onRelease = function(){
                foura._visible = false;
                total -= 10;
        }

        fourc.onRelease = function(){
                fourc._visible = false;
                total -= 10;
        }

        fourd.onRelease = function(){
                fourd._visible = false;
                total -= 10;
        }

        if(!(foura._visible) || !(fourc._visible) || !(fourd._visible)){
```

```
                    incorrect4._visible = true;
        }

        fourb.onRelease = function(){
                star4._visible = false;
                total += 10;
        }

        if(!star4._visible){
                correct4._visible = true;
                incorrect4._visible =false;
                btnnext._visible = true;
                fourb.enabled = false;

                if(foura._visible){
                        foura._visible = false;
                }
                if(fourc._visible){
                        fourc._visible = false;
                }
                if(fourd._visible){
                        fourd._visible = false;
                }
        }
}
```

Layer 16: Frame 28

```
stop();
incorrect5._visible = false;
btnnext._visible = false;
correct5._visible = false;

onEnterFrame = function(){

        fiveb.onRelease = function(){
                fiveb._visible = false;
                total -= 10;
        }
```

```
        fivec.onRelease = function(){
                fivec._visible = false;
                total -= 10;
        }


        fived.onRelease = function(){
                fived._visible = false;
                total -= 10;
        }


        if(!(fiveb._visible) || !(fivec._visible) || !(fived._visible)){
                incorrect5._visible = true;
        }


        fivea.onRelease = function(){
                star5._visible = false;
                total += 10;
        }


        if(!star5._visible){
                correct5._visible = true;
                incorrect5._visible =false;
                btnnext._visible = true;
                fivea.enabled = false;

                if(fiveb._visible){
                        fiveb._visible = false;
                }
                if(fivec._visible){
                        fivec._visible = false;
                }
                if(fived._visible){
                        fived._visible = false;
                }
                }
}

```

Layer 16: Frame 29

```
stop();
```

```
incorrect6._visible = false;
btnnext._visible = false;
correct6._visible = false;

onEnterFrame = function(){

        sixa.onRelease = function(){
                sixa._visible = false;
                total -= 10;
        }

        sixb.onRelease = function(){
                sixb._visible = false;
                total -= 10;
        }

        sixc.onRelease = function(){
                sixc._visible = false;
                total -= 10;
        }

        if(!(sixa._visible) || !(sixb._visible) || !(sixc._visible)){
                incorrect6._visible = true;
        }

        sixd.onRelease = function(){
                star6._visible = false;
                total += 10;
        }

        if(!star6._visible){
                correct6._visible = true;
                incorrect6._visible =false;
                btnnext._visible = true;
                sixd.enabled = false;

                if(sixa._visible){
                        sixa._visible = false;
                }
                if(sixb._visible){
```
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```
                    sixb._visible = false;
            }
            if(sixc._visible){
                    sixc._visible = false;
            }
            }
}

Layer 16: Frame 30

stop();
incorrect7._visible = false;
btnnext._visible = false;
correct7._visible = false;

onEnterFrame = function(){

        sevena.onRelease = function(){
                sevena._visible = false;
                total -= 10;
        }

        sevenc.onRelease = function(){
                sevenc._visible = false;
                total -= 10;
        }

        sevend.onRelease = function(){
                sevend._visible = false;
                total -= 10;
        }

        if(!(sevena._visible) || !(sevenc._visible) || !(sevend._visible)){
                incorrect7._visible = true;
        }

        sevenb.onRelease = function(){
                star7._visible = false;
                total += 10;
        }
```

```
        if(!star7._visible){
                correct7._visible = true;
                incorrect7._visible =false;
                btnnext._visible = true;
                sevenb.enabled = false;

                if(sevena._visible){
                        sevena._visible = false;
                }
                if(sevenc._visible){
                        sevenc._visible = false;
                }
                if(sevend._visible){
                        sevend._visible = false;
                }
        }
}
```

Layer 16: Frame 31

```
stop();
incorrect8._visible = false;
btnnext._visible = false;
correct8._visible = false;

onEnterFrame = function(){

        eightb.onRelease = function(){
                eightb._visible = false;
                total -= 10;
        }

        eightc.onRelease = function(){
                eightc._visible = false;
                total -= 10;
        }

        eightd.onRelease = function(){
                eightd._visible = false;
```

```
                total -= 10;
        }

        if(!(eightb._visible) || !(eightc._visible) || !(eightd._visible)){
                incorrect8._visible = true;
        }

        eighta.onRelease = function(){
                star8._visible = false;
                total += 10;
        }

        if(!star8._visible){
                correct8._visible = true;
                incorrect8._visible =false;
                btnnext._visible = true;
                eighta.enabled = false;

                if(eightb._visible){
                        eightb._visible = false;
                }
                if(eightc._visible){
                        eightc._visible = false;
                }
                if(eightd._visible){
                        eightd._visible = false;
                }
        }
}
```

Layer 16: Frame 32

```
stop();
incorrect9._visible = false;
btnnext._visible = false;
correct9._visible = false;

onEnterFrame = function(){

        ninea.onRelease = function(){
```

```
            ninea._visible = false;
            total -= 10;
    }

    nineb.onRelease = function(){
            nineb._visible = false;
            total -= 10;
    }

    nined.onRelease = function(){
            nined._visible = false;
            total -= 10;
    }

    if(!(ninea._visible) || !(nineb._visible) || !(nined._visible)){
            incorrect9._visible = true;
    }

    ninec.onRelease = function(){
            star9._visible = false;
            total += 10;
    }

    if(!star9._visible){
            correct9._visible = true;
            incorrect9._visible =false;
            btnnext._visible = true;
            ninec.enabled = false;

            if(ninea._visible){
                    ninea._visible = false;
            }
            if(nineb._visible){
                    nineb._visible = false;
            }
            if(nined._visible){
                    nined._visible = false;
            }
    }
}
```

Layer 16: Frame 45

```
stop();
congrat._visible = false;
bbhakka._visible = false;
bbchild._visible = false;
bbwedding._visible = false;
bbtripod._visible = false;
bbwinnower._visible = false;
bbsedan._visible = false;
incorrectpot._visible = false;
incorrectcart._visible = false;
incorrecttype._visible = false;
incorrectbowl._visible = false;
incorrectknife._visible = false;

this.onEnterFrame = function() {

cart.onRelease = function(){
        cart.enabled = false;
        score -= 10;
}

if(!cart.enabled){
        incorrectcart._visible = true;

}

incorrectcart.onRelease = function(){
        sadcart._visible = false;
}

if(!sadcart._visible){
        incorrectcart._visible = false;
}

type.onRelease = function(){
```

```
        type.enabled = false;
        score -= 10;
}

if(!type.enabled){
        incorrecttype._visible = true;

}

incorrecttype.onRelease = function(){
        sadtype._visible = false;
}

if(!sadtype._visible){
        incorrecttype._visible = false;
}

bowl.onRelease = function(){
        bowl.enabled = false;
        score -= 10;
}

if(!bowl.enabled){
        incorrectbowl._visible = true;

}

incorrectbowl.onRelease = function(){
        sadbowl._visible = false;
}

if(!sadbowl._visible){
        incorrectbowl._visible = false;
}

knife.onRelease = function(){
        knife.enabled = false;
        score -= 10;
}
```

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```
if(!knife.enabled){
        incorrectknife._visible = true;


}

incorrectknife.onRelease = function(){
        sadknife._visible = false;
}

if(!sadknife._visible){
        incorrectknife._visible = false;
}

pot.onRelease = function(){
        pot.enabled = false;
        score -= 10;
}

if(!pot.enabled){
        incorrectpot._visible = true;


}

incorrectpot.onRelease = function(){
        sadpot._visible = false;
}

if(!sadpot._visible){
        incorrectpot._visible = false;
}

hakkaclothes.onRelease = function(){
        hakkaclothes.enabled = false;
        score += 10;
}

if(!hakkaclothes.enabled){
        bbhakka._visible = true;


}
```

```
bbhakka.onRelease = function(){
        happyhakka._visible = false;
}

if(!happyhakka._visible){
        bbhakka._visible = false;
}

child.onRelease = function(){
        child.enabled = false;
        score += 10;
}

if(!child.enabled){
        bbchild._visible = true;
}

bbchild.onRelease = function(){
        happychild._visible = false;
}

if(!happychild._visible){
        bbchild._visible = false;
}

wedding.onRelease = function(){
        wedding.enabled = false;
        score += 10;
}

if(!wedding.enabled){
        bbwedding._visible = true;

}

bbwedding.onRelease = function(){
        happywedding._visible = false;
}
```

```
if(!happywedding._visible){
        bbwedding._visible = false;
}

tripod.onRelease = function(){
        tripod.enabled = false;
        score += 10;
}

if(!tripod.enabled){
        bbtripod._visible = true;

}

bbtripod.onRelease = function(){
        happytripod._visible = false;
}

if(!happytripod._visible){
        bbtripod._visible = false;
}

winnower.onRelease = function(){
        winnower.enabled = false;
        score += 10;
}

if(!winnower.enabled){
        bbwinnower._visible = true;
}

bbwinnower.onRelease = function(){
        happywinnower._visible = false;
}

if(!happywinnower._visible){
        bbwinnower._visible = false;
}

sedan.onRelease = function(){
```

```
        sedan.enabled = false;
        score += 10;
}

if(!sedan.enabled){
        bbsedan._visible = true;

}

bbsedan.onRelease = function(){
        happysedan._visible = false;
}

if(!happysedan._visible){
        bbsedan._visible = false;
}

if(!(hakkaclothes.enabled) && !(child.enabled) && !(wedding.enabled) && !(tripod.enabled)
&& !(winnower.enabled) && !(sedan.enabled)){
        congrat._visible = true;

        pot._visible = false;
        cart._visible = false;
        type._visible = false;
        bowl._visible = false;
        knife._visible = false;
}
}
```

Salted Fish

steps: Frame 3

```
stop();
//hide next button
btn_next._visible = false;
txt_next._visible = false;

this.onEnterFrame = function()
{
```

```
//hide fish after clicked
fish.onRelease = function()
{
        fish._visible = false ;
}

fish2.onRelease = function()
{
        fish2._visible = false ;
}

fish3.onRelease = function()
{
        fish3._visible = false ;
}

fish4.onRelease = function()
{
        fish4._visible = false ;
}

fish5.onRelease = function()
{
        fish5._visible = false ;
}

//hide instruction after fish all caught
if (!(fish._visible) && !(fish2._visible) && !(fish3._visible) && !(fish4._visible) &&
!(fish5._visible))
{
        info_arrow._visible = false;
        txt_catch._visible = false;

        //show next button
        btn_next._visible = true;
        txt_next._visible = true;
}

//flying fish!!!!
if (Key.isDown(Key.RIGHT))
```

```
        {
              fish._x += 10;
              }
        else if (Key.isDown(Key.LEFT))
              {
                      fish._x -= 10;
                      }
        else if (Key.isDown(Key.UP))
              {
                      fish._y -= 10;
                      }
        else if (Key.isDown(Key.DOWN))
              {
                      fish._y += 10;
                      }

        var speed = 1;

        cloudy._x += 1;
        cloudy2._x += 1;
        cloudy3._x += 1;
        cloudy4._x += 2;
        cloudy5._x += 1;

}
```

steps: Frame 4

```
stop();

        //hide scaled fish
        naked_fish._visible = false;
        arrow_scale._visible = false;
        txt_next._visible = false;
        btn_next._visible = false;

this.onEnterFrame = function()
{
        scale_fish.onRelease = function ()
        {
```

```
                scale_fish._visible = false;
        }

        if(!(scale_fish._visible))
        {
                naked_fish._visible = true;
                arrow_scale._visible = true;
                txt_next._visible = true;
                btn_next._visible = true;
        }
}
```

<u>steps: Frame 5</u>

```
stop();

        //hide scaled fish
        naked_fish._visible = false;
        arrow_scale._visible = false;

        //hide next button
        txt_next._visible = false;
        btn_next._visible = false;

this.onEnterFrame = function()
{
        fishgut.onRelease = function ()
        {
                fishgut._visible = false;
        }

        if(!(fishgut._visible))
        {
                naked_fish._visible = true;
                arrow_scale._visible = true;
                txt_next._visible = true;
                btn_next._visible = true;
        }
}
```

<u>steps: Frame 6</u>

```
stop();

        fishsalt._visible = false;
        btn_next._visible = false;
        txt_next._visible = false;

this.onEnterFrame = function()
{
        //plus button
        add_salt.onRelease = function ()
        {
                //hide plus sign
                add_salt._visible = false;

                //hide fish barrel
                salt_can._visible = false;
                fish_barrel._visible = false;
        }

                if(!(add_salt._visible))
        {
                //show barrel with salt
                fishsalt._visible = true;

                //show next button
                txt_next._visible = true;
                btn_next._visible = true;
        }
}
```

<u>steps: Frame 8</u>

```
stop();

        //hide fish
        dry1._visible = false;
        dry2._visible = false;
        dry3._visible = false;
```

```
        dry4._visible = false;
        dry5._visible = false;

        //hide next button
        btn_next._visible = false;
        txt_next._visible = false;

this.onEnterFrame = function()
{
        fish1.onRelease = function()
        {
                fish1._visible = false;

        }

        if(!(fish1._visible))
        {
                dry1._visible = true;
        }

        fish2.onRelease = function()
        {
                fish2._visible = false;
        }

        if(!(fish2._visible))
        {
                dry2._visible = true;
        }

        fish3.onRelease = function()
        {
                fish3._visible = false;
        }

        if(!(fish3._visible))
        {
                dry3._visible = true;
        }
```

```
fish4.onRelease = function()
{
        fish4._visible = false;
}

if(!(fish4._visible))
{
        dry4._visible = true;
}


fish5.onRelease = function()
{
        fish5._visible = false;
}

if(!(fish5._visible))
{
        dry5._visible = true;
}

var speed = 1;

cloud._x += 1;
cloud2._x += 1;
cloud3._x += 1;
cloud4._x += 1;
cloud5._x += 1;
cloud6._x += 1;
cloud7._x += 1;

//show next button
if (dry1._visible && dry2._visible && dry3._visible && dry4._visible && dry5._visible)
{
        btn_next._visible = true;
        txt_next._visible = true;
}
}
```

steps: Frame 10

```
stop();

this.onEnterFrame = function()
{

dried1.onPress = function():Void{
this._yscale= -(this._yscale);
}

dried2.onPress = function():Void{
this._yscale= -(this._yscale);
}

dried3.onPress = function():Void{
this._yscale= -(this._yscale);
}

dried4.onPress = function():Void{
this._yscale= -(this._yscale);
}

dried5.onPress = function():Void{
this._yscale= -(this._yscale);
}
}
```

steps: Frame 11

```
stop();
        //hide fish
        wrap1._visible = false;
        wrap2._visible = false;
        wrap3._visible = false;
        wrap4._visible = false;
        wrap5._visible = false;

        //hide next button
        btn_next._visible = false;
```

```
        txt_next._visible = false;

this.onEnterFrame = function()
{
        flies._x -= 3;
        flies2._x -= 3;
        flies3._x -= 3;
        flies4._x -= 3;

        paper1.onRelease = function()
        {
                paper1._visible = false;
        }

        if(!(paper1._visible))
        {
                wrap1._visible = true;
        }

        paper2.onRelease = function()
        {
                paper2._visible = false;
        }

        if(!(paper2._visible))
        {
                wrap2._visible = true;
        }

        paper3.onRelease = function()
        {
                paper3._visible = false;
        }

        if(!(paper3._visible))
        {
                wrap3._visible = true;
        }
```

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```
        paper4.onRelease = function()
        {
                paper4._visible = false;
        }

        if(!(paper4._visible))
        {
                wrap4._visible = true;
        }


        paper5.onRelease = function()
        {
                paper5._visible = false;
        }

        if(!(paper5._visible))
        {
                wrap5._visible = true;
        }

        var speed = 1;

        cloud._x += 1;
        cloud2._x += 1;
        cloud3._x += 1;
        cloud4._x += 1;
        cloud5._x += 1;
        cloud6._x += 1;
        cloud7._x += 1;

        //show next button
        if (wrap1._visible && wrap2._visible && wrap3._visible && wrap4._visible &&
wrap5._visible)
        {
                btn_next._visible = true;
                txt_next._visible = true;
        }
}
```

sun: Frame 7

```
stop();

this.onEnterFrame = function()
{
        btn_next._visible = false;
        txt_next._visible = false;

        var speed = 5;

        sun2._visible = false;
                sun._x += speed-2;
                sun._y -= speed;

        if (sun._y <= 0)
        {
                sun._visible = false;
                sun2._visible = true;

                sun2._x += speed-2;
                sun2._y += speed;
        }

        if(sun2._visible)
        {
                btn_next._visible = true;
                txt_next._visible = true;
        }
}
```

boat: Frame 2

```
stop();

this.onEnterFrame = function ()
{
        boat2._x -= 5;
}
```

Existing Games Evaluation:

(Hong Kong Museum of History & Cultural Heritage Museum)

Summary of Findings:
- Instructions containing both written and picture directions were most effective. Games with instructions that were overly complicated were harder to use.
- Games that provided the most interaction were the hands-on games such as the board game.
- The most effective educational games incorporated facts to progress through the game (see the board game & dolphin computer game) & re-enacted actual events (guillotine) or practices (crockery & fish sorting).
- All of the games evaluated were enjoyable. Level of enjoyment would be enhanced through creativity and family/group interaction. Level of enjoyment would be decreased by difficult directions or if the game was difficult to use (computer game).
- Computer games that were too long created long lines and kept visitors from exploring other parts of the room. Computer games with more interactive components were more entertaining.
- Games that required prior knowledge were more difficult to use (ex. Fish sorting). Games that assumed prior knowledge would also be less educational (ex. artifact game).

Hong Kong Museum of History:

Construction Activities

What? Making ethnic paper structures (Hakka house, ancestral hall, & boat) from cut outs.

Understandability? Without an aide, the instructions are more difficult to understand (good picture instructions, but no textual instructions)

Ease of Use? Difficult to keep structure from collapsing

Fun? yes

Educational? Not particularly, needs explanations for the individual items in the buildings

Interaction? Yes, competition even

Other/Notes: This game was designed to be used in the Education Corner with the instructions and help of an aide.

French Computer Game:

What? Character must go through maze to reach the next maze while collecting various prizes.

Understandability? Yes

Ease of Use? Difficult to use or move character using touch arrow method

Fun? Yes, but the difficulty in using the games took away from the enjoyment.

Educational? No, unless you reach the end where there is a quiz. But since the game is difficult to use, few will make it to the end.

Interaction? Little

Other/Notes: Use same technology as we will be provided with

Crockery Game:

What? Using markers, decorate paper plates like people did during the French Revolution to spread propaganda.

Understandability? yes

Ease of Use? easy

Fun? Yes if you like drawing. It also utilized creativity.

Educational? Somewhat

Interaction? Little

Other/Notes:

"Risk" Game:

What? Board game utilizing three historical characters, who are racing about the board to win the war.

Understandability? Instructions were easy to understand, utilizing both written and picture instructions. However, the direction arrows indicating paths to take on the board were easy to confuse.

Ease of Use? Easy

Fun? VERY FUN!

Educational? Yes, the event cards contained actual battle facts and events that affected the progress of the characters. In the end, the Napoleon character will lose as there is an instant win

card for the other side and the other cards are slightly skewed in their favor (teaching that Napoleon lost the war)

Interaction? Lots of interaction

Other/Notes:

Photo-Op:

What? Wooden, life-size people cut-outs which people can stick their heads through to get pictures of themselves from.

Understandability? yes

Ease of Use? easy

Fun? Yes, and provides a nice picture-OP for visitors

Educational? No

Interaction? Interaction with family & friends with cameras

Other/Notes:

Dress up:

What? Dress up in masks and hats from the French revolution

Understandability? yes

Ease of Use? easy

Fun? yes

Educational? A little

Interaction? yes

Other/Notes: could be a health issue concerning the hats in spreading hair bugs

Guillotine:

What? Stick your head under the guillotine to experience the execution first-hand.

Understandability? yes

Ease of Use? easy

Fun? yes

Educational? Yes, there were lots of facts nearby to read and you would get to experience the actual execution first-hand

Interaction? little

Other/Notes:

Cultural Heritage Museum:

Build a Bird

What? Build a bird by using different body parts which connect by magnet

Understandability? No directions, other than "build a bird"

Ease of Use? Easy, magnets work well

Fun? yes

Educational? Yes about different birds

Interaction? Little, only one person at a station at one time

Other/Notes: easy to steal/losable parts

Animal Eyes

What? Look through "eyes" of animal to see through their type of vision

Understandability? Yes, but extra information had complex wording

Ease of Use? yes

Fun? yes

Educational? good

Interaction? Some interaction with others

Other/Notes:

Sorting Fish

What? Sort different types of fish to take to market with puzzle activity

Understandability? Poor instructions, difficult wording

Ease of Use? Once you understand what to do, yes

Fun? Very fun

Educational? Educational content not well explained, it assumes too much prior knowledge

Interaction? Good for group interaction

Other/Notes: many losable parts

How big a bird are you?

What? Measure yourself against the large birds on the wall

Understandability? Instructions clear & simple

Ease of Use? easy

Fun? Fun, but not very interactive unless comparing differences

Educational? Education content on the wall was good

Interaction? Not very, unless comparing

Other/Notes: no losable parts

Soil game

What? Feel the soil in a bag (squeeze soil containing "bag") and turn wheel to see what type of plant will grow in that soil

Understandability? Instructions simple & clear

Ease of Use? Yes

Fun? yes

Educational? yes

Interaction? Not too interactive

Other/Notes: hands-on education

Soil identifier

What? Identify what the soil is under the microscope

Understandability? No instructions

Ease of Use? Difficult to use, hard to understand what to do

Fun? no

Educational? Maybe, but not very good

Interaction? none

Other/Notes:

Artifact game

What? Match the artifact to its correct time period

Understandability? Clear instructions

Ease of Use? Easy to use, artifact stick to wall due to magnets and matching is shape and color specific

Fun? yes

Educational? Educational content is alright, but there was no explanation of the dynasties involved and very little on what the artifact is

Interaction? Can be interactive

Other/Notes: no small losable parts

Artifact identifier

What? By pulling down or up, you can identify the artifact

Understandability? Instructions are clear and simple

Ease of Use? Hard to pull out sometimes, but otherwise good

Fun? Interesting idea, but no

Educational? Content is good

Interaction? no

Other/Notes:

Toy room board game

WAY too complicated for us, let alone children.

Fish/Coral Reef Computer Game

What? Computer game fish adventure

Understandability? Good instructions

Ease of Use? Hard to click sometimes

Fun? It wasn't really a game, was a watch and learn and sometimes click interactive movie

Educational? Very educational

Interaction? Interactive, but not with other people

Other/Notes: Lots of text, can lose interest with too much

Dolphin Computer Game

What? Save the dolphins from different urban dangers

Understandability? Needs more specific instructions (or quick explanatory video first)

Ease of Use? It was a fairly hard to play game

Fun? Yes!

Educational? Yes, for each urban foe there was a lot of good information explaining why it has adverse effects for dolphins.

Interaction? Sometimes with people watching, but not in general

Other/Notes: Too long, not everyone gets to play and lines form (low turnover rate)

Education Corner Floor Plan

Fortune Display

Fortune Teller

Dragon Boat Display

Mid-Autum Display

Door God Coloring Station

Evaluation Table

TV

Board Game

Srping Scrolls Station

Computer

New Year Display

Spring Scroll Display

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