

# Exploring the Art Museum's Family Experience: Meeting the Needs of Family Users through User Experience Design

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Academic project

## Abstract

With the improvement of living standards, art museums have become a popular choice for family learning and leisure, however, how to fully satisfy the visiting experience of family members of different age groups has become a major issue. Starting from the differences between the experiences of adults and children, this study explores in depth how to better meet the comprehensive needs of family visits, especially emphasising the importance of joint learning among family members. Therefore, this study designed a visit APP specifically for families, integrating functions such as route planning, exhibit search and Quiz interaction to enhance knowledge sharing and interaction among family members. Initial feedback indicated that the APP enhanced the learning interaction between parents and children. This study aims to provide new thinking and strategies for art museums in optimising the user experience for families.

## Study Methodology

Through the previous literature review, the study identifies user differences in family visits and the key role of adults in children's learning. Digital technology has enabled richer museum experiences, but it remains unclear how to combine adult engagement and digital tools to optimised the family experience. This requires more research, especially considering the cognitive differences between adults and children. **The research question was therefore narrowed down to: how can online tools be used in art museums to help parents learn and plan visits with their children?**



## Solution

### User Need

- Improve family interaction
- Family Self-Exploration
- Information and Support
- Easily searchable online environment
- Adults Learning Resources

### Requirements Functionalization

- Family visit route planning & navigation
- Family Interaction Enhancement Tool
- Information Retrieval Optimisation

## Research Result

Interviews and field research revealed that parents tended to search for relevant information through official websites prior to the visit, but feedback from multiple sources indicated that there were some difficulties in finding specific information. In addition, after the visit, family members generally expressed a desire to utilise online tools for follow-up learning and review, but existing tools clearly failed to meet such needs. For this reason, this research team has designed an app product that aims to provide an ongoing and easily maintained service for families. Utilising the rich digital resources of the National Gallery of London, which synthesise information about exhibitions, exhibits and events, this study and designed features such as navigation, optimised information retrieval, specific family tasks and content highlighting to further enhance family interaction and learning during gallery visits.

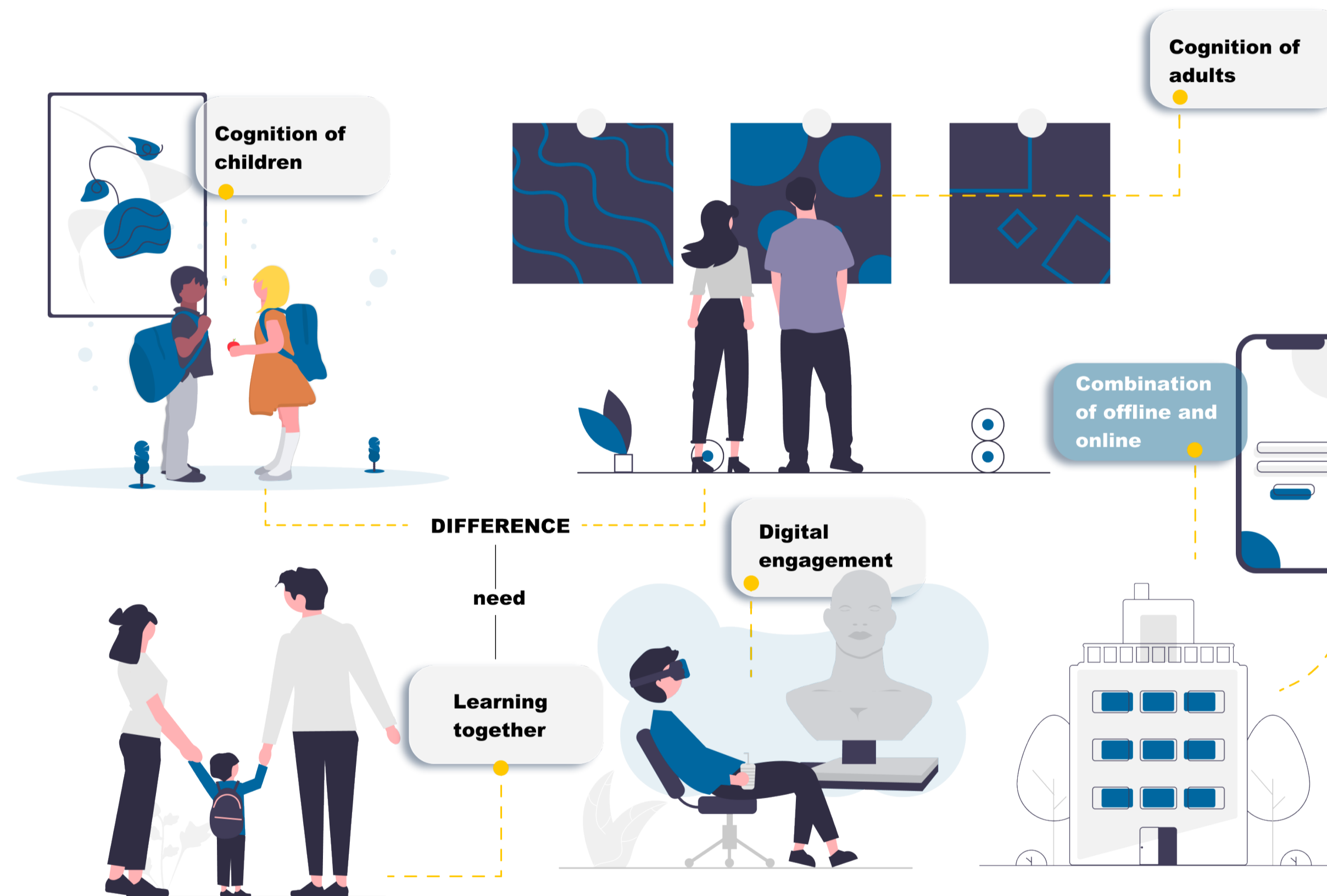
## Conclusion & Suggestions

This study proposes the notion that 'learning together' family interactions can enhance the family experience of visiting an art museum, and uses digital and mobile technologies to design an app that aims to enhance knowledge sharing and collaborative learning within the family, with initial feedback suggesting that the quiz format and the provision of information in the form of exhibition navigation enhances co-learning in the family.

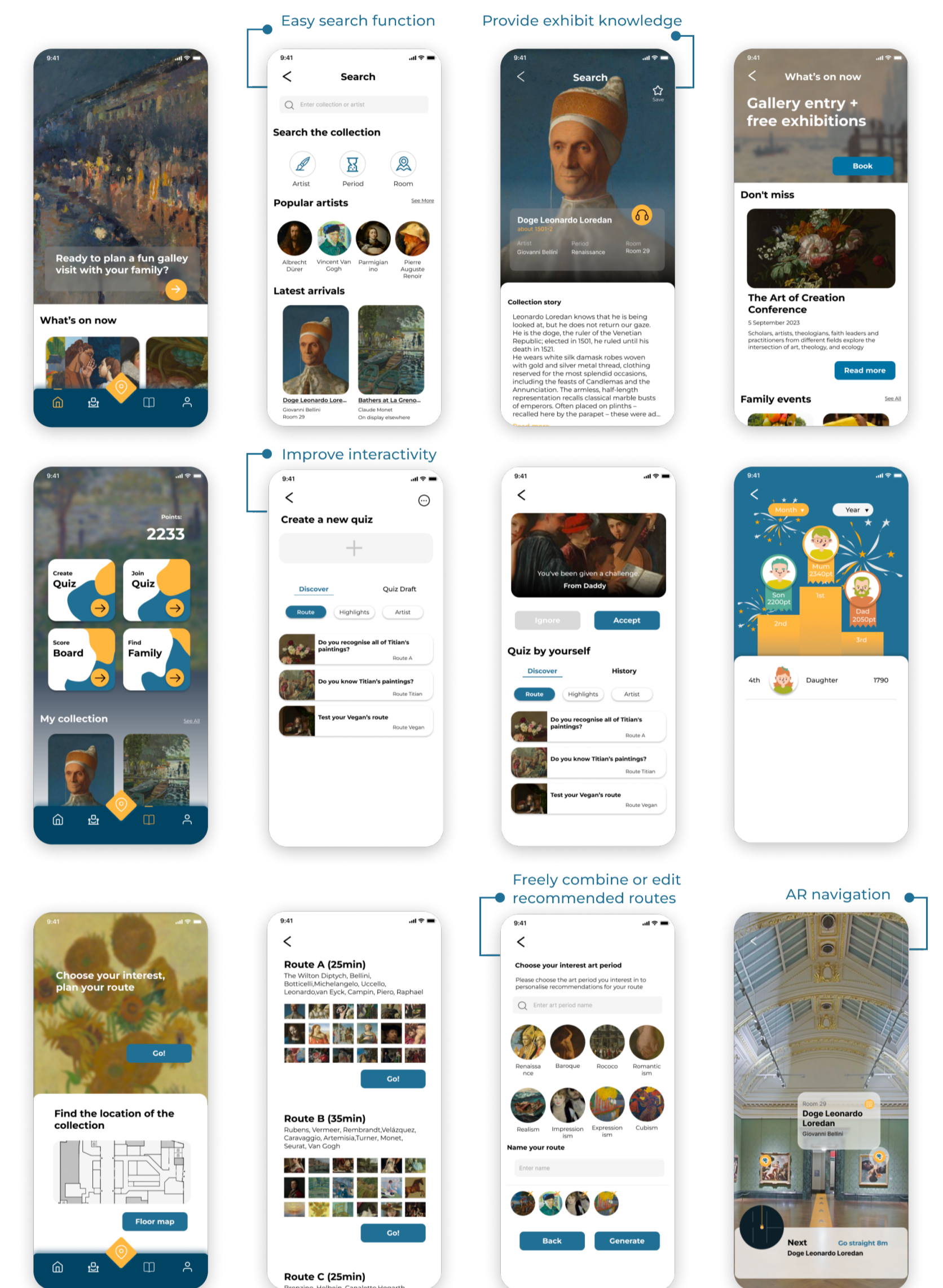
## Introduction

Despite digital content attracting new audiences, most people are still keen on the physical experience, and offline physical and online digital visits complement each other and will together form a rich museum visit experience. The aim of this thesis is to delve deeper into the family's experience of visiting art museums and meet their needs. It focuses on family members' interests, interaction methods and experience feelings, and optimises their experience through user experience design. It is hoped that this study can provide reference for art museum managers to optimise exhibition services.

**Research question:** Does the understanding of exhibits or artefacts by family members in different age contexts affect the overall family experience of the visit?



## Prototype



## Testing & Evaluation

The test focussed on exploring whether families enjoyed interacting through quiz and whether the app could help them visit the gallery more efficiently. Five groups of families participated in the test. Key findings: most families appreciated the navigation features of the APP but would have liked more exploratory content; most families were interested in the quiz features but had specific needs; and although the interface is intuitive, there is still room for improvement, particularly in information retrieval. Overall, families felt that the APP improved the experience of route planning and learning interactions, and made a number of suggestions, such as adding multi-difficulty quiz and personalised recommendations.

Future research should further focus on providing richer and more meaningful experiences for families in art museums. For example, enhancing the personalised recommendation features of the category, such as exhibit recommendations based on the age and interests of family members. Quiz features extended to multiple levels to accommodate all ages. Combining artificial intelligence and big data to provide more accurate visit recommendations and educational resources. Integration of VR and XR technology provides families with a more immersive visit experience.