

# **02 Exploring Archival Practices: Unveiling Cultural Heritage Through a Live Escape Room Experience**

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### ABSTRACT

There are an increasing number of Live Escape Room Games—especially in the GLAM (galleries, libraries, archives and museums) sector. The paper provides insights into participants' feedback on *The Archivist's Dream*, a Live Escape Room within the Archives of Contemporary Arts (ACA) in Krems, Austria. The case study shows that Live Escape Games have great potential for cultural heritage sites as an outreach strategy, as well as a format of cultural mediation. This phenomenon is still understudied because existing research mostly focuses on mainstream Escape Room Games. We discuss the results of a visitor study with over 80 participants, showing that the players value the visit of an authentic cultural heritage site with the possibility to learn something new about the location and its history, as well as about archival practices. They described their experiences as fun, exciting and challenging. Further, we introduce the term Cultural Heritage Live Escape Game (CHLEG) and analyse the different opportunities it offers: to attract new visitors, gain broader visibility through low-threshold access, provide knowledge and arouse interest in further exploration of cultural heritage.

### KEYWORDS

archives, cultural mediation, escape room games, user experience, cultural heritage

### SUGGESTED CITATION

Brinkmann, H., Potz, B., Wimmer, S., & Denk, N. (2024). Exploring Archival Practices: Unveiling Cultural Heritage Through a Live Escape Room Experience. *DAC – Digital Journal for Arts & Cultural Studies*, 1. <https://doi.org/10.48341/j72z-sy48>



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## 1. Introduction

- 1 Galleries, libraries, archives and museums can offer and use their venues in a way they are not initially made for: playing. The following case study analyses the visitor experience in a Live Escape Game located within the underground premises of the Archives of Contemporary Arts (ACA) in Krems, Austria ('Archiv der Zeitgenossen'). This Cultural Heritage Escape Game was presented as *The Archivist's Dream* ('Der Traum der Archivarin') to the public for the first time in the fall of 2021. Since then, around 250 visitors have played the game in groups of three to six people; the game was developed by the Center for Applied Games Studies in close collaboration with the ACA, which collects literary estates<sup>1</sup> (see Koenig et al., 2022). Both institutions are part of the Department for Arts and Cultural Studies at the University for Continuing Education Krems (Danube University Krems). The present paper provides an evaluation of this game, exploring how cultural heritage institutions could apply game-based approaches by offering Live Escape Games for cultural mediation. The research questions we pose are as follows:
  - 2 Is the approach of a Cultural Heritage Live Escape Game (CHLEG) a possibility to a) attract new visitors and gain broader visibility? b) provide knowledge about specific practices and cultural literacy? c) offer a fun yet also challenging form of cultural mediation that combines the visit of an authentic cultural heritage site with the possibility to learn something new about the location and its history? d) have a social experience that can also be a team-building experience?
  - 3 In the first step of this introductory section of our exploratory research, we summarise the state of the art in the literature with respect to Escape Games; in the second step, we provide our definition of CHLEG games; and finally, we describe the case study that was evaluated and answer the research questions.

### 1.1 Escape Room Games

- 4 Escape Rooms are games in which players must collaboratively solve several different puzzles to escape a room, usually within a limited amount of time (e.g., Grande-de-Prado et al., 2020). Nowadays, there are many Escape Rooms where the goal is no longer to actually break out of a room, but rather, for example, to access a certain room, to reach a special object or—using the example of 'The Archivist's Dream'—to break out of a dream world. A 'Live' Escape Game takes place in a physical room or outdoor with

1 <https://www.archivderzeitgenossen.at/en/the-archives/> (accessed 7/2023).

the players on site and not in a virtual room or environment. While all Escape Rooms are Escape Games, not all Escape Games are Escape Rooms, although they are sometimes still called like this, because the term coined the genre. Although the first Live Escape Room can be traced back to Tokyo in 2007 (Dilek & Kulakoglu Dilek, 2018), it has become a touristic activity in European cities since 2013 (Dilek and Kulakoglu Dilek, 2018; Pakhalov et al., 2020). The success of such games is probably not only rooted in the social component of solving tasks as a team and the psychological component of being rewarded for getting the tasks right, but also because it is not just about escaping a room, but also escaping from everyday life by experiencing an environment that is different from the usual surroundings most people are familiar with. To create such a specific distinctively different environment, many Escape Rooms are reminiscent of film or theatre sets, yet it is clear that they are fake stage sets: the look is often trashy, and it does not matter if they are located, for example, in Vienna or Budapest, because they are not site specific. As Nicholson (2015) analysed in one of the first research papers on Escape Room Games, many of these designed spaces are created as ‘unpleasant places’, such as prisons or dungeons, hospitals or disaster sites, that players must free themselves of. Together with the time limit, a stressful situation is provoked, unleashing adrenaline. Therefore, an emotional and bodily component can be added to the experiences in conventional Escape Room Games.

- 5 Research on Escape Games is relatively new, and the few existing publications have focused on the definition and development of these games and their touristic impact (e.g., Lama & Martin, 2021; Pakhalov et al., 2020; Stasiak, 2022). This stream of the literature differentiated various types of Escape Room Games because of topics and motifs. As mentioned, the classic setting is escaping from an ‘unpleasant place’ that is artificially created. In their global study, Lama and Martin (2021) identified three main topics: 1) mystery, fantasy and horror, 2) science, science fiction and related subjects (space, nuclear, terror) and 3) detective and crime. In their research questions, they explicitly asked if local cultural heritage is incorporated into the design of the game, and their results showed that ‘the connection between Escape Room narratives and the local culture has been shown to be weak in a majority of cases’ (Lama & Martin, 2021, p. 11). Because these typically used classifications of Escape Room Games were not satisfying for our case study, which especially benefits from the site-specific location, we suggest a differentiation in terms of space and location: Escape Games in the digital space, Live Escape Games in artificially designed spaces and Live Escape Games at original cultural heritage sites.

## 1.2 Cultural Heritage Live Escape Games

- 6 There are an increasing number of Live Escape Games—especially in the GLAM (galleries, libraries, archives and museums) sector—that make use of already existing, ‘pleasant places’, such as museums, palaces or castles. We suggest using the term CHLEGs for these Live Escape Games because they are unique and comparable to the ‘unpleasant places’ and are also not part of an everyday surrounding but rather are special sites with an exciting, though not always pleasant, history. The huge advantage of such ‘real’ places is their authenticity. Kolar (2017) identified novelty and authenticity as the two components that the visitors of Escape Games—and tourists in general—are looking for (Kolar, 2017, p. 1325). To make the most out of the authentic places in the context of a CHLEG, it seems desirable to create stories that are site specific yet that can still be fictional.
- 7 There are many cultural heritage–themed (escape) games (Lepouras et al., 2021), yet we only consider these CHLEGs if they take place at an original authentic site. For example, there is a Live Escape Game in Vienna about the Austrian Gallery Belvedere that does not take place at the Belvedere itself but in an artificially designed room somewhere else in Vienna.<sup>2</sup> However, although such games cannot be considered CHLEGs, they can, of course, still motivate the players to visit the original cultural site in the same way as, for example, movies do. This form of tourism is called ‘film-induced tourism’ (Beeton, 2005), and there is also ‘game-induced tourism’ (Dubois & Gibbs, 2018) if the game plot takes place at original, physical sites that can be visited. Indirectly, such games advertise a cultural site, but because the Belvedere was not involved in the creation of this game, it is hard to classify it as an ‘advergame’ (Sawyer & Smith, 2008) that should be part of a marketing strategy.
- 8 CHLEGs have no strict pedagogical purpose or learning outcome (Koenig et al., 2022), even though they can be considered informal learning settings because they impart knowledge and convey authentic experiences, especially in the context of cultural literacy, throughout the game. The goal is the same as that of cultural mediation yet with a different, game-based and interactive approach. Therefore, we do not consider them ‘Edu Rooms’ (Grande-de-Prado et al., 2020). Koenig et al. (2022) discussed *The Archivist’s Dream* as an ‘advergame’ situated between cultural mediation and serious games (Koenig et al., 2022, p. 298). The overlap of cultural mediation (‘Kulturvermittlung’) and serious games can be seen as edutainment (Reinhardt, 2007), combining education and entertainment but without having a clear learning outcome. However, in the sense

2 <https://www.nowayout-escape.at/de/mission-belvedere/> (accessed 7/2023).

of edutainment, CHLEGs still motivate players to learn more about the site-specific history and engage with a certain (cultural) topic. Not all cultural mediation is edutainment, but it can be (Mandel, 2015; Otte, 2014), and serious games (Tzima et al., 2021) are also part of edutainment, although most game designers state that they go beyond (Breuer & Bente, 2019; Michael & Chen, 2006).

- 9 When it comes to the term ‘advergame’, in the case of *The Archivist’s Dream*, the cultural institution was involved in the development of the game, and it was designed with the aim of attracting new visitors. Thus, in a sense, the game advertises the cultural institution, but the terms outreach and audience development might be a better fit for the goal of attracting new visitors, especially from a visitor studies’ perspective.
- 10 Over the past three years, several such CHLEGs have appeared in Austria. The following list is exemplary and does not claim to be exhaustive. We intend to demonstrate that our case study is not an isolated case, but rather a larger phenomenon. There is, for example, the Escape Room at the Schallaburg, a historic castle in Lower Austria. The narrative of the game is a detective story created around the former owner of the castle, Hans Wilhelm Losenstein, who died in 1601. In Schloss Esterhazy, a palace in Eisenstadt, a similar approach was applied: Prince Louis Esterházy arrives after an adventurous journey back at his castle in 1886 and brings a legendary amulet with him. Mysterious things are starting to happen in the castle. However, this Escape Room Game is no longer available. A third example of an Austrian CHLEG is the Mystery Hunt at the Kunsthistorisches Museum in Vienna. This puzzle game is inspired by the Da Vinci Code and leads players through several sections of the museum: the Imperial Treasury, the Egyptian and Near Eastern Collection, and the Collection of Greek and Roman Antiquities. The treasure hunt is promoted by the sentence: ‘experience the museum as you never have before’.<sup>3</sup>
- 11 Even though CHLEGS are enjoying increasing popularity, to the best of our knowledge, besides *The Archivist’s Dream*, there are no other archive-based Live Escape Room Games in Austria. However, internationally, there are, for example, games by the University’s Archives and Special Collections Centre (ASCC) of the London University of the Arts in the UK and the Escape Room located at the C. Y. Thompson Library on UNL’s East Campus in Nebraska, USA.

3 <https://mystery.at/en/mystery-hunt/the-antique-collection/> (accessed 7/2023).

### 1.3 The Archivist's Dream as Cultural Heritage Live Escape Room

- 12 *The Archivist's Dream* takes place within the underground premises of the ACA, designed by the Austrian architect Adolf Krischanitz in 2010. The location is dominated by four wooden rooms. These four rooms are made of four different types of wood, one type per room, resulting in four different spatial impressions, even though the rooms are otherwise similar regarding their high ceilings, compartments and drawers and the large worktable in the centre. The archive can be visited and used for research purposes if a prior appointment is made. However, before the launch of the Escape Room, the personal papers and estates of Austrian cultural personalities were primarily visited by specialised researchers. In addition, the archive also organises concerts, artist talks, exhibitions or conferences to reach further target groups. One aim of the introduction of *The Archivist's Dream* was to reach out to new audiences without prior knowledge of archival practices and open the beautiful location to a broader public. However, the aim was not only to make the premises accessible and usable in a different way than before, but there was also a desire to make the ACA and its collection better known and, more generally, to convey archival practices in a playful way to non-archivists.
- 13 In 'The Archivist's Dream', players do not simply escape the physical archive (and, by implication, the world of arts, culture and archival work), but a dream version of this world; as a matter of fact, escaping the dream even gets them back to the real archives, which are therefore framed as a desirable place. At the same time, the (abstracted) archival skills of attribution, deciphering and contextualizing are promoted as effective (and engaging) means to fulfil this desire. (Koenig et al., 2022, p. 299)
- 14 The storyline is described in detail in Koenig et al. (2022). To summarise, the players find a laptop downstairs in the lobby of the ACA, and there, they learn within a digital game that the archivist feel asleep and that players are 'awakening' in the archivist's dream. Although the space of the ACA is mysterious and gloomy it is still a 'pleasant place', and in contrast to many other commercial Escape Rooms, the players are not intentionally put in a stressful situation. At the beginning, a playing time of about one hour is announced. If the players take longer, more and more hints are given to avoid exceeding the given time slot too much. However, because Escape Room players are often looking for a challenge and want to finish as quickly as possible, the players create a stressful situation for themselves. As illustrated in the quote above, the aim of the game is not to escape the archives but to find a certain clue to wake up and escape *The Archivist's Dream*. The puzzles include hands-on uses of different 'old-fashioned' original tools and technologies, such as a cassette recorder, a typewriter or an overhead pro-

jector to work with the archival material, which is provided as facsimiles (see Fig. 1).<sup>4</sup> With the selected archival material, the works of composer Friedrich Cerha and writers Julian Schutting and Peter Turrini are featured in the game.



**Figure 1**

Insights into the Cultural Heritage Live Escape Room: The Archivist's Dream.

Photos © Andrea Reischer.

## 2. Materials and Methods

- 15 After they have solved all the puzzles, woken up from the archivist's dream and, thus, having finished the Escape Room, the visitors were able to participate in the online survey. The aim of this visitor study was to evaluate the overall experience of this unique CHLEG, to get feedback on this format of cultural mediation and to learn more about the visitors, their motivation and their insights as well as their learning because of the game. On a more general level, the case study provides insights into CHLEG as an outreach strategy. The survey was open from 2 October 2021 for a time span of 14 months. Because of COVID-19, at the beginning of the data collection phase, there were not many players, which explains the very long time period of data collection. The survey was in German, and in the following, the questions and answers are presented in English (translated by the authors) and the original answers will be provided in the footnotes. Because a survey is a noninterventional study, ethical approval was not required.

4 This video gives an impression of the venue and the materials used: <https://youtu.be/M1-TDsAVIjQ> (accessed 7/2023).



## 2.1 Evaluation

- 16 The online survey could be opened via a QR code provided in the Escape Room. The players accessed their own mobile device and answered the online questionnaire via LimeSurvey. The survey was pretested by four different persons, including the authors, and had different sections. After signing the consent form and reading the information about data protection, section 1 was devoted to playing in general and previous experiences with Escape Room Games, section 2 focused on the venue and the evaluation of the Escape Room in Krems, section 3 included more detailed questions specifically on the narration of *The Archivist's Dream*, and section 4 was about knowledge gained and potential insights with respect to the archive. The survey was concluded with socio-demographic data and questions about the perceived difficulty of the Escape Room Game. Besides quantitative questions, the survey contained open questions, where the participants could write keywords into a field. These were then thematically coded by two different persons for inter-rater reliability. In the following, we provide a descriptive analysis of the data collected.

## 2.2 Participants

- 17 A total of 95 participants scanned the QR code and opened the survey online. However, not all of them answered all of the questions, which is why the number of participants ( $N=x$ ) varies across the different questions. Therefore, the exact number is provided for each result below the figures. Although for the first questions we had 88 participants, we only had 79 for the questions at the end of the survey and for filter questions less. The data were anonymised. The average age was 30.82 (standard deviation 12.9), with the youngest being 9 years old and oldest 51. One participant indicated that this person was 91, yet from the other answers of this participant, we concluded that the answer was probably not correct. Of the 79 participants who completed the survey, 52 identified as female and 26 as male, and one person did not want to identify (the same that typed 91 in as age).
- 18 The participants of the survey were all visitors to the CHLEG. Visitors can book a time slot online. There were individual visitors, but most visitors already came as a group, for example, for team-building reasons, during a university course or as a group of friends or family. Therefore, we have an ecologically valid test sample instead of recruited test persons. However, a bias towards university staff and students of the University for Continuing Education Krems, where the CHLEG is located, can be observed due to the bookings. Yet, since the data was anonymized, we cannot say for sure, who participated in the survey. Accordingly, the level of education was rather high: out of the 79 complet-

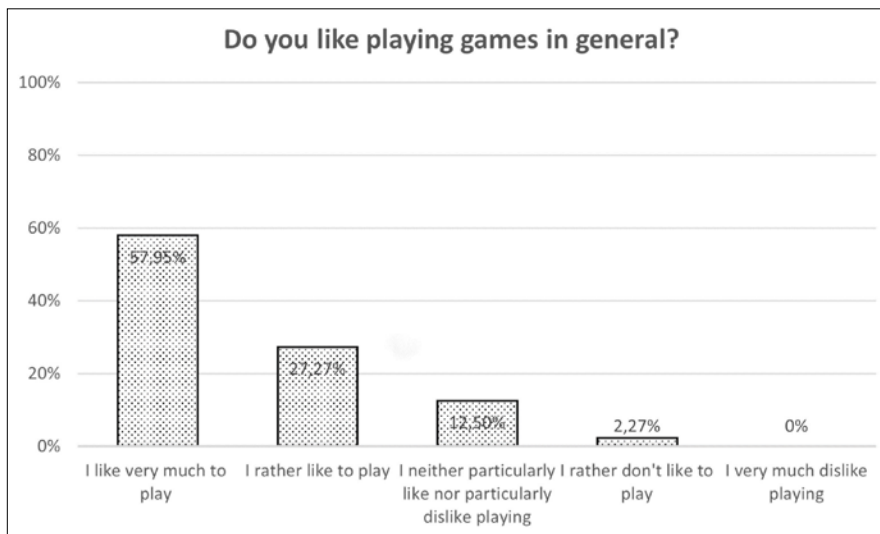
ed questionnaires, 12.66% of participants completed an apprenticeship, 32.91% had a high school diploma (Matura), and 10% held a bachelor's degree, 16.46% had a master's degree, and 11.39% had a PhD, while the others had not yet finished school.

### 3. Results

#### 3.1 Playing Games – Game Affinity

- 19 In the first section of the survey, we asked, ‘Do you generally like playing games (analogue and/or digital)?’ The results show that the majority of the participants agreed with the statement that they like very much or rather to play (see Fig. 2). The second question specifically targeted Escape Room Games: ‘Have you ever played an Escape Room before today? Think of classic Escape Room Games like *The Archivist’s Dream* or board and card games or digital games with Escape Room elements’. For this response, 42 out of 88 had no previous experience, and 46 had already played such games. The ones who had already experienced Escape Room Games were asked in a filter question how many Escape Room Games they had already played, and the answers ranged from 1 to 25. The next filter question was about the kind of Escape Games, giving them three options with multiple options possible. Here, 55% had already played a live Escape Game, 35% a board or card game and 10% a digital Escape Game. They also had the option to name specific live games. Here, among others, the Escape Room Schallaburg was mentioned, as well as the Mystery Hunt at the Kunsthistorisches Museum, and the School of Magic, one of the several designed Escape Rooms located in Vienna.<sup>5</sup> Because there were almost no people who disliked playing (which could have been possible because some groups came for team-building reasons and did not actively decide to join), it does not make sense to divide the sample into two groups at this point because we can assume that almost all individuals are comparable.

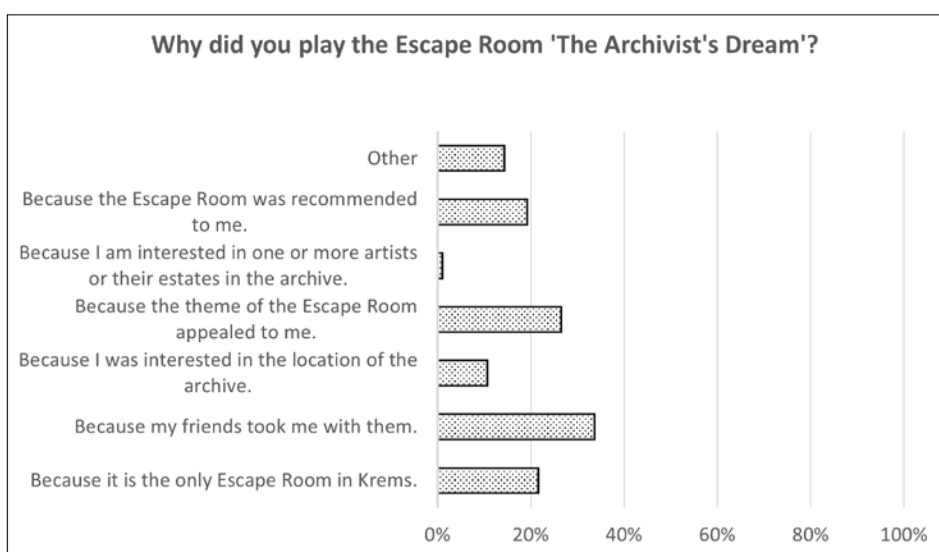
5 <https://www.nowayout-escape.at/de/rooms/> (accessed 7/2023).



**Figure 2**  
Answers to the question ‘Do you like playing games in general?’ N=88.

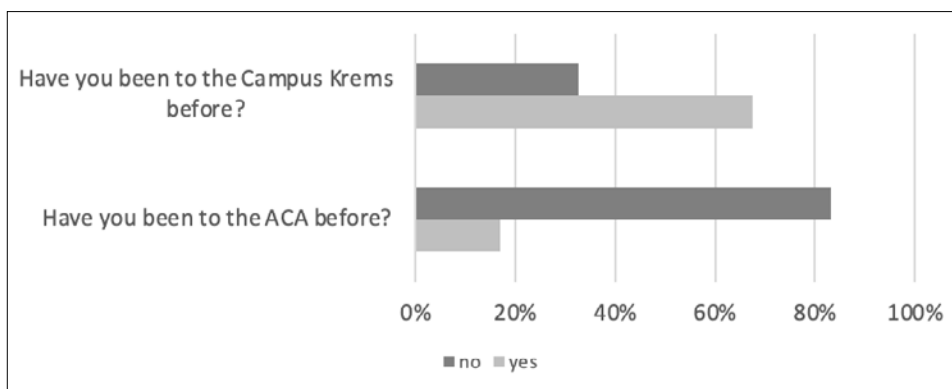
### 3.2 Outreach

- 20 The first question of the second section was aimed at the motivation of the visitors and asked why they played *The Archivist’s Dream*. In this case, 33.73% participated because friends took them with them, which underlines the social component mentioned above, but also the possible team-building measures; 26.51% were attracted because of the topic of the Escape Room, and the third most frequently given reason was the fact that it was the only Escape Room in Krems at that time (see Fig. 3). Here again, it was possible to choose multiple options.



**Figure 3**  
Answers to the question ‘Why did you play the Escape Room The Archivist’s Dream?’.

- 21 One of the main reasons for the creation of this specific Escape Room Game was to make the ACA more visible. This aim was reflected in the first question posed at the beginning of the paper: *a) Is this approach a possibility to attract new visitors and gain broader visibility?* To evaluate whether this aim could be reached, the next two questions focused on the venue, the Campus in Krems and, more specifically, the archive itself. Although most of the participants, 67.47%, had been at the Campus before, only 16.87% had been to the ACA (see Fig. 4). This shows that, through the Escape Room Game, it was possible to attract many first-time visitors and gain broader visibility.



**Figure 4**

Answers to the questions ‘Have you been to the Campus Krems before’ and ‘Have you been to the ACA before?’ N=83.

- 22 The other questions – *Is this approach a possibility to b) provide knowledge about specific practices and cultural literacy? c) offer a fun and at the same time challenging form of cultural mediation combining the visit to an authentic cultural heritage site with the possibility to learn something new about the location and its history?, and d) have a social experience that can even be a team-building measure?* – can be answered by analysing the different levels of evaluation.

### 3.3 General Evaluation

- 23 The evaluation of the whole experience was very good: 77.11% liked the Escape Room Game ‘very much’, 18.07% liked it, 3.61% were indifferent, and 1.20% did not like it at all (N=83). In a follow-up task, we asked the participants to describe in a few words what they liked about the Escape Game and what they did not like. For the analysis of this open question, the single words were thematically coded with Taguette (Rampin et al., 2021), a free and open-source tool for qualitative research. From all the keywords mentioned in the survey, several topics could be identified and coded as ‘tags’. Some of these recurring topics were mentioned more often than others: in particular, the puzzles were enthusiastically referred to and most often com-

bined with mentioning how exciting the overall experience has been because of the very creative, unique and difficult but not too difficult tasks. In total, we found 48 keywords contributing to this theme (see Table 1). Regarding the second most often mentioned topic, the whole experience, characterized by the combination of the puzzles, the materials used, and the location were highlighted (37), followed by the materials included in the game in third place. These keywords referred to the technology and media for solving the puzzles, but also to the facsimile of the archival materials, such as letters or photographs that are part of the puzzles (22). In fourth place out of eight, the location and atmosphere of the ACA were mentioned 15 times.

Content of Codes	Number of Mentions
The creativity, originality, broad variety and difficulty of the puzzles	48
The whole experience/Interweaving the location, the persons and the materials	37
The materials used (archival materials like letters or photographs, as well as the media/tools that had to be used like the typewriter)	22
The location/space/atmosphere at the ACA	15
The group work/group	6
The start of the game/story with the laptop activity	5
Story/topic	5
The accompanying person/guard who would help	3

**Table 1**

Clustered keywords with Taguette according to the codes. These topics were mentioned in answering the question: *Describe in a few words what you liked about the Escape Game.*

- 24 For the aspects, visitors did not like, the same procedure as described above for the positive keywords was applied. The most negative comments were made with respect to the difficulty of the puzzles (see Table 2). Eight participants mentioned that, although it was possible to solve the puzzles without prior knowledge, the players were not able to fully appreciate the game without knowing more about the venue or the various art-

ists included in the game. Additional knowledge for understanding the broader context, here in the form of a cultural mediator or text to read, either before or after the game, was suggested. Furthermore, seven participants mentioned that they experienced technical problems, five participants did not like the beginning of the story or the game with the laptop, and two participants thought that the game was boring. Because this field was mandatory and every participant was forced to write something, many people (36) wrote that they could not think of any negative aspects and that they liked everything (‘Please keep it up’, ‘It was great ... I can’t complain about anything’, ‘very cool’, etc.).<sup>6</sup>

Content of Codes	Number of Mentions
Too difficult	9
Context is not understandable	8
Technical problems	7
The start of the game/story with the laptop	5
Guard (Too many hints during the game, feeling observed)	3
Boring	2
Everything perfect	36

**Table 2**

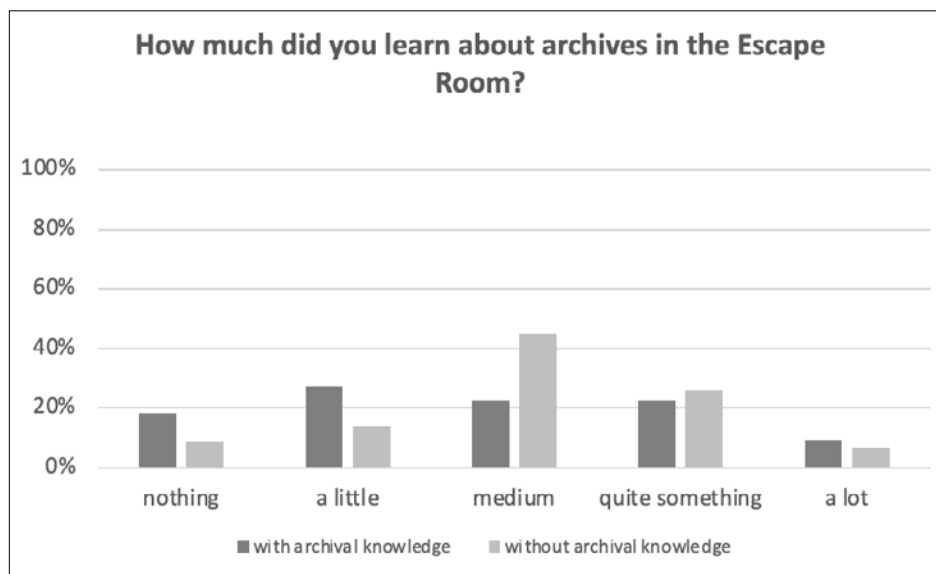
Clustered keywords with Taguette according to the codes. These topics were mentioned in answering the question: *Describe in a few words what you did not like about the Escape Game.*

### 3.4 Detailed Evaluation

- 25 In the third section of the survey, the questions were more detailed, starting with how much the participants liked the storyline of *The Archivist’s Dream*. Here, 47.5% liked the story very much, 43.75% liked it, 7.5% were indifferent and 1.2% did not like it at all (N=80). For this question, the possibility to write some keywords was given; however, this time it was not mandatory, so only a few suggestions were proposed, as follows:

6 Original: „Bitte so weitermachen“, „Es war super... ich kann nix beanstanden“, „sehr lässig“



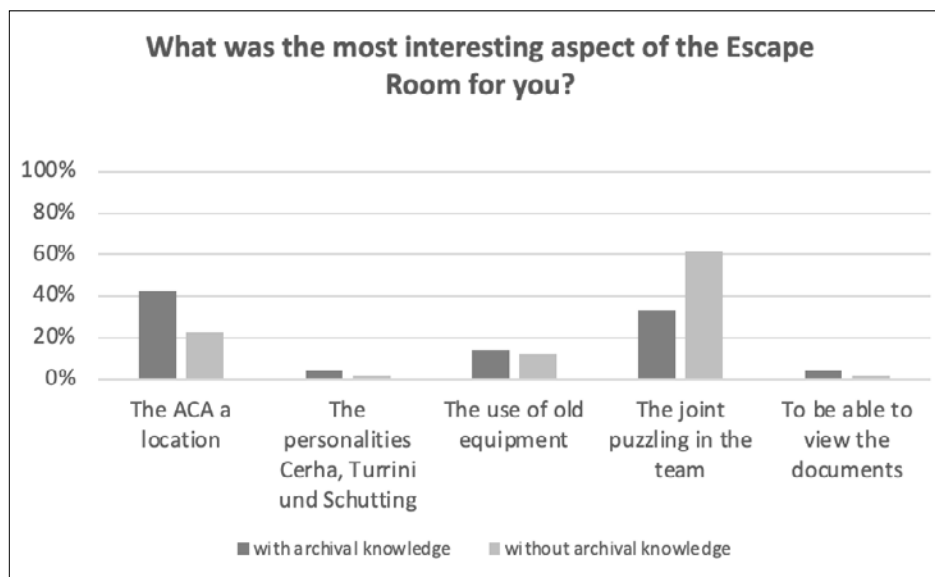


**Figure 6**

Answers to the question, ‘How much did you learn about archives in the Escape Room?’ N=80.

- 28 The following questions focused on CHLEG as an informal learning venue. The self-reported learnings included a quantitative question on how much the participants had learned through their visit, an open question about what they learned and then one quiz question about the author Peter Turrini to objectively check what the visitors remembered.
- 29 As expected, the self-reported learning was higher for the group without previous archival knowledge, 45% learned a medium amount and 26% something about the archives during their participation in the Escape Room Game (see Fig. 6). Interestingly, in the group with previous archival knowledge, 9% indicated that they learned a lot, whereas in the group without previous archival knowledge, only 6.8% stated this. When asked what exactly they had learned, the group with previous knowledge focused in describing their learnings on the material and content of the ACA and on the CHLEG as a format for archival education and acquiring cultural literacy. The group without previous knowledge focused in describing their learnings on the three artists that are part of the game and the archival space (how it looks and how it is organised with the drawers and boxes). The quiz question about Peter Turrini’s profession was answered correctly by the majority of participants in both groups: 86% in the group with previous knowledge and 80% in the group without.

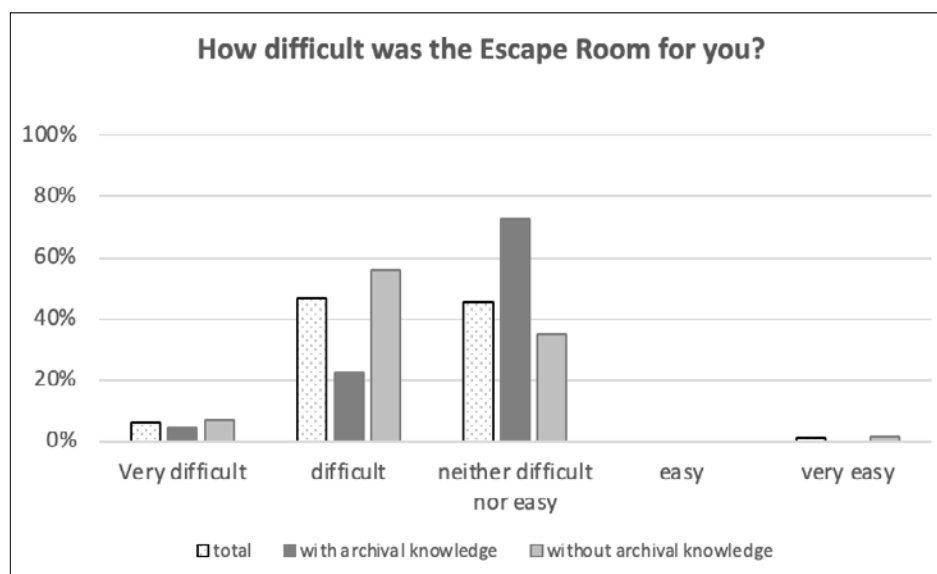




**Figure 7**

Answers to the question, ‘What was the most interesting aspect of the Escape Room for you?’ N=80.

- 30 For the questions about the most interesting aspect of *The Archivist’s Dream*, we stick to the comparison of the two groups. Here, we can see a major difference between the two groups: for the group with previous knowledge, the location of the ACA was the most interesting aspect, while for the others, the social experience with the team was the most interesting aspect (see Fig. 7).
  
- 31 After reflecting on the experience on a general and detailed level, we asked how difficult the participants found the game and whether they would recommend the Escape Room. Although the Escape Room Game was experienced as neither difficult nor easy by most of the visitors with previous knowledge, more than half (56%) of the group without previous knowledge experienced the game as difficult (see Fig. 8). In games, experienced players want to be presented with a challenge that matches their playing experience (Alexander et al., 2013). Thus, difficult puzzles can be seen as positive for experienced players. Game developers, therefore, frequently give the option to choose between different difficulties or (especially in digital games) allow the game difficulty to adapt to players. In *The Archivist’s Dream*, the game difficulty can be adjusted by the guard, who, depending on the situation, can give tips or comments to help inexperienced players with certain puzzles while experienced players can enjoy the challenge. Unfortunately, we did not ask whether the assessment of ‘difficult’ was perceived negatively or positively; therefore, these results alone do not allow any interpretations.



**Figure 8**

Answers to the question ‘How difficult was the Escape Room for you?’ N= 79.

- 32 By considering the other answers, such as the positive mention of the puzzles described above and of the level of difficulty, it can be concluded that the classification of the game as ‘difficult’ or ‘neither difficult nor easy’ can be interpreted as a seal of approval. This also corresponds with the result that, in total, 76 out of 80 participants who made it to the end of section 3 would recommend participating in this specific CHLEG, while three answered ‘maybe’ and one person would not recommend participating.

#### 4. Discussion

- 33 The analysis of the provided feedback can reveal insights into a game-based approach within an archive as an outreach strategy, as well as a format of cultural mediation. The case study of the ACA shows that CHLEGs have great potential to combine different aspects. For a cultural heritage institution, it is a) a possibility to attract new visitors to gain broader visibility and b) to provide insights into specific practices and cultural literacy. For the visitors, it is c) a fun and at the same time challenging form of edutainment. The visit of an authentic cultural heritage site offers the possibility to learn something new about the location and its stocks and working methods, as well as to escape everyday life, and d) to have a social experience that can even be a team-building measure. The results of the current study indicate that some of these potentials could be realised better than others in *The Archivist’s Dream* and are summarized below according to the order above.

- 34 a) As Figure 4 shows, the game was responsible for over 83% of participants being in the ACA for the first time. Because we know that 22 of the participants already had previous knowledge about archival practices, we checked in a next step if these participants fell under the first-time visitors as well or if the CHLEG attracted a completely different visitor group in the sense that the new visitors were not already experienced in archival practices; here, 11 out of the 22 had been to the ACA before and only four without previous knowledge had, meaning that most of the first-time visitors were indeed a new group of visitors. This interpretation is further supported by the motivation of the visitors—only one person stated that the estates of the artists had been the reason to play the game. This is usually the main reason for researchers to visit the ACA. In view of the goals set, these results can certainly be considered successful. In the specific case of the archive, the question remains whether this will be limited to a one-time visit or whether there are further opportunities for an interested public to engage with the archive in the future. Although the game has established itself as a good outreach opportunity and many first-time visitors could be attracted, the declared goal was audience development (Koenig et al., 2022, p. 298). The aim here was also to bind new visitors to a cultural institution in the long term (Hoppe & Heinze, 2016). Beyond participating in the Escape Room Game, what else can these new visitors, that is, laypeople, do in and with the archive? Here, reference should be made to the public events that interested parties can attend and the publications of the ACA, for example, through a newsletter to keep them informed and up to date.
- 35 b) Archival practices and cultural literacy were transmitted via the game in a playful manner. As the self-reported answers of the survey's participants showed, according to their subjective perception, the group with no previous experience rated the amount learned as quantitatively medium, and even some participants with previous knowledge could still learn something new (Fig. 6). Since CHLEGs have no clear learning outcomes, this was an expected result. As mentioned above, in the sense of 'edutainment', the goal was to learn as a side effect during the game and motivate players to learn more about the topic they engaged with by themselves. Here, it became apparent that some visitors would have liked to have more information about the ACA on the spot, or someone they could have asked about it after the game. As an instrument for cultural mediation, this approach seems to be suitable only to a limited extent. It is rather complementary to other offers, and it would make sense to provide information for the players to conduct a guided tour or a question-and-answer session with a cultural mediator after the game. In this way, the interest that the game could undoubtedly trigger would not be lost. However, it must be mentioned that, in normal operation, the intervals between bookable games must be planned accordingly tight for resource reasons. The rebuilding (reset) of the Escape Room takes at least 30 minutes. There-

fore, it would certainly be worth considering encouraging visitors to participate in one of the guided tours for the general public as part of various events the ACA offers so that interested players would come a second time to the ACA.

- 36 c) The visitors reported that they felt very well entertained; here, we can find several quotes indicating that the time went by very quickly and that the game was exciting. The creative form of the puzzles, incorporating archival material and various technological devices, resulted in a high rating for the entire experience. In the detailed evaluation, the keywords indicated that participating was also an appreciated challenge. Although the authentic location was not the main motivation for the visit, it contributed to the overall experience because it was mentioned several times in the detailed evaluation, and for the group with previous knowledge, it was even the most interesting aspect of the game. The results indicate that aspect c) was fully covered. However, for the authenticity of the site, more explicit questions seem fruitful for future research on CHLEGS.
- 37 d) The social experience and collaborative task-solving process were the most interesting aspects for the group without previous knowledge and were rated very high in the group with previous knowledge. The group size was also investigated, and it was between 3–4 (29 %) and 5–6 (71 %) players per round. The social component was also mentioned several times in the detailed analysis. Here again, we only have the self-reported and subjective perceptions of the visitors, and it could be interesting to look more detailed into this topic with visitor observation or video analysis to learn more about group dynamics and the collaborative aspect in future research.
- 38 This summary of the most important results to answer the proposed questions shows that, in the case of the ACA, the main aims could be met. This study, like many others, has its limitations, which have already been mentioned above. These result in the need for future research in this area. Here, especially longitudinal research is important to better understand CHLEGS' long-term impact on visitor engagement and learning. We still don't know how many participants either opted to learn more about the ACA or returned to the ACA at a later date after playing the game. This would be of course very interesting and future research could look into potential long-term success of this new outreach strategy. The analysed case study further underscores that CHLEGS have great potential for authentic cultural heritage sites, and the results suggest that such a game-based format could be suitable for other cultural heritage institutions, if implemented in a well-thought-out way. Here, a future comparison with other CHLEGS regarding the aims of the game, the development of the game, and the user experience would be very useful as well as a comparative analysis with other cultural outreach strategies.

## Acknowledgements

We would like to thank all the participants who took the time and completed the survey. Furthermore, we thank Christine Rigler, who initiated this user study, and Marie-Christine Markel for supervising the participants in the Escape Room.

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