Mojca Horvat[1]

DEVELOPING A MIXED METHODS RESEARCH APPROACH THROUGH ITERATIVE RESEARCH ON ARCHIVAL EXHIBITIONS

Abstract

Purpose: *The purpose of this article is to present the development of a research approach for studying archival exhibitions from two connected perspectives: those of exhibition authors and those of adult visitors to archival exhibitions. The approach was developed to examine the relationship between authors' intentions and visitors' experiences.*

Method/approach*: The research follows an iterative approach in which findings and methodological considerations from each stage inform decisions in the following stages. This process allows the research design to evolve as the study progresses and enables quantitative and qualitative methods to be combined in response to the research problem.*

Results*: The resulting mixed methods approach applies both quantitative and qualitative methods to the perspectives of exhibition authors and visitors. The quantitative component allows the two groups to be compared across a larger sample, while the qualitative component examines authors and visitors of the same exhibitions in greater depth and within the specific context of each exhibition. The integration of the two components makes it possible to compare authors' intended visitor experiences with visitors' reported experiences and provides a more comprehensive basis for answering the research question than either approach alone.*

Conclusions/findings*: The development of the research design shows the potential of an iterative mixed methods approach for empirical research in archival science. Although the approach can only be fully evaluated after all phases of the research have been completed, it may also be useful for studying archival topics beyond exhibitions.*

Keywords *mixed methods research, iterative research design, archival exhibitions, visitor experience*

[1] Mojca Horvat, archival councillor, Regional Archives Maribor, Glavni trg 7, 2000 Maribor, Slovenia, PhD student of Archival Sciences at Alma Mater Europaea University, Slovenska ulica 17, 2000 Maribor, Slovenia, mojca.horvat@pokarh-mb.si.

1. INTRODUCTION

1.1 ARCHIVAL EXHIBITIONS AND THEIR PUBLIC ROLE

Professional archival literature frequently discusses exhibitions within the broader context of the public role of archives. Based on an analysis of state archives in several German federal states, Lutz (2003, 15–19) found that exhibitions were a regular component of public outreach (*Öffentlichkeitsarbeit*) in all the archives included in her study. In most of these institutions, exhibitions were among the most important means of presenting archives to the public, contributing to their visibility and to their involvement in the cultural life of their communities. Similarly, in the South Korean context, Kim (2009) identifies exhibitions as a central component of archival public programmes and as an effective means of promoting archives to a wider public. Gfrereis (2016, 225) goes further, describing exhibitions as the most visible public presentation of an archive, as they bring archival materials into the public sphere.

More recent research no longer understands the public role of archives primarily in terms of promotional activities but increasingly emphasises the development of more lasting relationships between archives and their communities. Saurombe (2020) examined public programmes in national archives in Eastern and Southern Africa. She identifies archival exhibitions as one form of public programming through which archives present their holdings and services and establish connections with their communities. The purpose of such activities is not limited to promoting archival institutions; they also aim to increase access to archival materials and encourage their use among groups that do not usually visit archives. Public programmes therefore involve more than simply making archival materials available to the public. They can also help archival institutions better understand the needs of their users and adapt their services accordingly (Saurombe, 2020, 35–40). This broader understanding of the public role of archives also draws attention to how audiences engage with and experience archival exhibitions.



Figure 1: Opening of the exhibition Od urbarjev do fotografij. Photo: Andrej Petelinšek

1.2 RESEARCH ON ARCHIVAL EXHIBITIONS AND VISITOR EXPERIENCE

Braun (2017) discusses the planning of archival exhibitions. She notes that archivists generally receive little formal training in exhibition development and therefore acquire the necessary knowledge mainly by consulting professional literature, examining practices in other institutions, and gaining experience through their own work. In her view, exhibition development involves defining the objectives of an exhibition programme, preparing exhibition texts, deciding how materials will be presented, and following basic guidelines for their safe display and preservation. The selection of materials is another central challenge. Braun argues that a key criterion should be the story that an individual item can help to tell and what visitors can learn from it (Braun, 2017, 7–11). A more systematic approach to exhibition planning can be found in methodological recommendations developed by Russian archivists. These recommendations treat the archival exhibition as a comprehensive process that includes planning exhibition activities, developing the exhibition concept, selecting archival materials,

preparing the content plan, designing the exhibition space, organising promotion and accompanying activities, and addressing the preservation and protection of exhibited materials (Gerchikova et al., 2024, 42–43).

While the literature discussed above has focused primarily on practical aspects of planning, developing, and presenting archival exhibitions, some studies have also approached archival exhibitions as a subject of empirical research, raising questions about their effectiveness, impact, and visitors' experiences. Howgill (2015) developed a methodological framework for evaluating the effectiveness of physical and virtual archival exhibitions, advocating the use of simple and relatively inexpensive methods such as visitor observation, short structured interviews with visitors, and semi-structured interviews with exhibition authors.

The perspectives of both exhibition authors and visitors are also important in Lester's (2022) understanding of archival exhibitions. He argues that an archival exhibition is not a neutral presentation of archival materials, since the selection, arrangement, and interrelation of documents already involve interpretative decisions by exhibition authors. At the same time, the meaning of an exhibition is shaped not only through its planning and development, but also through the relationship between the exhibited materials and visitors. An exhibition can thus become a space for dialogue, where different perspectives meet and new meanings emerge. Using the example of an exhibition in New South Wales, Lester also suggests that archival exhibitions can have a broader social role, offering the potential to contribute to healing and reconciliation and to empower alternative forms and ways of knowing. In his view, archives gain social significance particularly when they help people develop a sense of identity, belonging, and shared memory (Lester, 2022, 211–216).

Given the limited research on visitors to archival exhibitions, relevant approaches were also sought in related fields, particularly museum and visitor studies. An important framework for understanding and evaluating learning in museums, libraries, and archives is provided by the Generic Learning Outcomes (GLO). Originally established in 2003 and updated in 2026, the framework adopts a broad understanding of learning, encompassing six interconnected areas:

- Knowledge and Understanding,
- Skills,

- Attitudes and Values,
- Enjoyment, Inspiration and Creativity,
- Activity, Behaviour and Progression,
- Sensory Engagement.

It therefore extends beyond the acquisition of knowledge to include emotional, value-related, creative, behavioural, and sensory aspects of the visitor experience.

Within museum and visitor studies, several approaches have been developed to examine and understand visitor experience (Pekarik et al., 1999; Packer & Ballantyne, 2002; Thoma, 2009). Drawing on this research tradition, Othman (2011) developed the Museum Experience Scale (MES) using a standard psychometric scale-development procedure. The initial pool of items was derived from previous research on museum and visitor experiences, including the work of Pekarik, Doering and Karns (1999), as well as the Generic Learning Outcomes framework. Following an initial reduction of items, 255 respondents evaluated their recent museum experiences, and principal component analysis was used to identify the underlying dimensions of visitor experience. The resulting MES consists of 20 items grouped into four dimensions:

- Engagement,
- Knowledge/Learning,
- Meaningful Experiences,
- Emotional Connection.

1.3 RESEARCH GAP

The literature reviewed for this study did not identify previous research on archival exhibitions that systematically compared exhibition authors' intentions with visitors' experiences. This indicates a need for a research approach that brings these two perspectives together and enables the relationship between intended and actual visitor experiences to be examined. The approach presented in this article was developed in response to this research gap.

1.4 AIM AND RESEARCH FOCUS

The aim of this article is to present the iterative development of a mixed methods research approach for the study of archival exhibitions. It describes the method-

ological decisions that shaped the research design and explains the rationale for combining quantitative and qualitative methods within a single research framework.

Archival exhibitions are generally created with particular intentions regarding what visitors should experience, learn, or take away from them. This raises an important question: do visitors experience an exhibition in the way its authors intended and expected? Simply recording visitor numbers cannot answer this question or provide insight into whether an exhibition has achieved its intended aims. The research approach presented in this article was developed to address the following central research question: To what extent do the intentions of archival exhibition authors correspond with adult visitors' experiences and informal[2] learning during exhibition visits?

2. METHODS

2.1 OVERALL RESEARCH DESIGN

To address the research question, a mixed methods research design was developed combining quantitative and qualitative approaches. In the initial phase, the quantitative component will provide comparable measures of selected dimensions of authors' expectations and visitors' experiences using the Museum Experience Scale (MES). The qualitative component, which forms the central part of the research, will then provide a more in-depth understanding of how authors plan exhibitions, how visitors experience them, and how informal learning is reflected in visitors' accounts.

The study will follow an iterative research approach in which data collection, analysis, and interpretation proceed progressively, with findings from one stage informing subsequent stages, as illustrated in Figure 2 (Srivastava and Hopwood, 2009, 77; Busetto et al., 2020).

[2] Informal learning is a natural accompaniment to everyday life and, unlike formal and non-formal learning, is not necessarily intentional. Individuals may therefore not recognise it as learning, although it contributes to their knowledge and skills (Commission of the European Communities, 2000, 8–9).

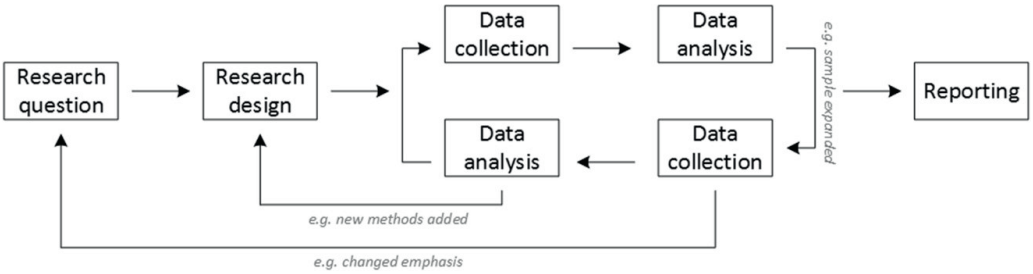


Figure 2. Iterative Research Approach
Source: Busetto et al. (2020)

The first phase will involve questionnaires for exhibition authors and visitors, followed by semi-structured interviews with both groups and visitor diaries. The study follows an iterative mixed methods design with a sequential structure: findings from the quantitative phase inform the subsequent qualitative phase, while findings emerging within the qualitative phase further guide subsequent data collection and analysis.

The research design was not developed as a fixed framework at the outset but evolved through a series of methodological decisions and adjustments, as described in the following section.

2.2 ITERATIVE DEVELOPMENT OF THE RESEARCH APPROACH

The research focuses and methodological design evolved considerably during the development of the study. The initial research idea concerned the role of emotions in different areas of archival work. This focus was subsequently narrowed to archival exhibitions, which provide a setting in which archival materials are deliberately selected, interpreted, and presented to the public and in which the responses of visitors can be explored.

An early version of the research design therefore focused primarily on visitors' emotional responses to archival exhibitions. During the development of the research approach, however, this focus was reconsidered because of the methodological challenges involved in operationalising and measuring emotions within the planned research design. The focus was consequently broadened from emotional responses to the more comprehensive concept of visitor experience, allowing cognitive, emotional, and meaning-related aspects of the exhibition experience to be examined together rather than treating emotional responses as

a separate phenomenon. This conceptual shift was accompanied by a series of methodological adjustments that gradually shaped the quantitative component of the research.

2.2.1 Delphi study

As an initial stage of the research, a two-round Delphi study was conducted with eight experts from Slovenian archives. The Delphi method, which aims to develop consensus among a group of experts, was selected because it is particularly useful in the early stages of research for identifying issues and establishing priorities (Okoli and Pawlowski, 2004, 26). The participants were professionals with several years of experience in developing archival exhibitions and represented different archival institutions in Slovenia: one expert from each regional archive, one from the Archives of the Republic of Slovenia, and one from an archdiocesan archive.

The Delphi study was based on an initial questionnaire for exhibition authors developed specifically for this research. It included statements concerning the aims of exhibitions and expected visitor responses, the selection of archival materials for display, the use of original documents or reproductions, and online exhibitions. The experts were asked to review the questionnaire and suggest changes or additions. Their comments were analysed to identify key themes and areas of emphasis, which subsequently informed the revision of the questionnaire. Based on this process, a revised questionnaire for authors of archival exhibitions was developed.

However, this did not make the findings of the Delphi study irrelevant to the subsequent research. The issues and themes identified through the expert consultation were retained and will be used to inform the qualitative component, particularly the development of the semi-structured interviews with exhibition authors.

2.2.2 Development and reconsideration of the initial questionnaire

Although the revised questionnaire was grounded in expert knowledge and consensus obtained through the Delphi study, its measurement properties had not been empirically tested. Empirical testing is an important step in questionnaire development, as it provides evidence about the reliability and validity of an instrument and supports the interpretation of the results (Field, 2018, Section 1.6.4). The decision to use the questionnaire as the main quantitative instrument was therefore reconsidered, and it was ultimately not used in the subsequent quantitative study.

2.2.3 Adoption and adaptation of the Museum Experience Scale

Instead, the Museum Experience Scale (MES) developed by Othman et al. (2011) was selected as the quantitative instrument. As described in Section 1.2, the MES was developed using standard psychometric procedures and measures four dimensions of museum visitor experience.

An important advantage of the MES for the present research is that it offers a common conceptual framework for examining the perspectives of exhibition authors and visitors, thereby providing a basis for comparison between the two groups. The original MES, developed to measure visitors' experiences in museums, was adapted to measure the experiences of visitors to archival exhibitions. A corresponding version was then developed for authors of archival exhibitions. Both versions retained the same underlying dimensions and corresponding items, while the statements in the authors' version were reformulated so that authors evaluated the visitor experience they intended to create rather than their own experience of the exhibition.

The corresponding questionnaires therefore allow the quantitative analysis to address two questions: whether the individual MES dimensions predict the overall assessment of the exhibition among authors and visitors, and whether authors' intended visitor experiences differ from visitors' reported experiences across the four MES dimensions.

2.3 QUANTITATIVE COMPONENT

2.3.1 Authors

The adapted MES questionnaire described in Section 2.2.3 was used to examine exhibition authors' intended visitor experiences across the four MES dimensions. The questionnaire was available online in Slovenian and English and was distributed by email to archivists in Slovenia and other countries. Respondents rated the statements on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire also included a single item on overall satisfaction with the exhibition and questions on respondents' age, gender, country, and previous experience in preparing archival exhibitions.

Participation was limited to respondents who had experience as authors or co-authors of archival exhibitions. Respondents were instructed to select one exhibition

they had authored or co-authored that had remained particularly memorable to them and to answer all MES items with that exhibition in mind. Participation was voluntary, and informed consent was provided through completion and submission of the questionnaire after participants had received information about the study.

Participants were recruited using purposive and snowball sampling, with the questionnaire distributed through professional networks and existing contacts in Slovenia and internationally (Ambrož, 2023, 96). Data were collected between 5 May and 19 June 2026. The initial target sample was 130 respondents; however, the final sample comprised 179 completed questionnaires.

2.3.2 Visitors

The adapted MES questionnaire described in Section 2.2.3 was used to examine visitors' experiences across the four MES dimensions. Visitors rated the statements on the same five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), and an additional item measured their overall satisfaction with the exhibition. The questionnaire also collected information on visitors' age, gender, education, frequency of archival visits, and the exhibition visited.

Participants were recruited through voluntary response sampling, with visitors deciding independently whether to participate (McCombes, 2019; Nikolopoulou, 2022). Participation was limited to adult visitors. Questionnaires with missing responses to the MES items required for the quantitative analysis were excluded from the final analytical sample. The questionnaire was available in Slovenian in both paper and electronic formats.

Data were collected between 21 May and 11 August 2026 from visitors to nine archival exhibitions, including one online exhibition. Permission to conduct the survey was obtained from the authors of all nine exhibitions. The initial target sample was 130 respondents; however, the final analytical sample comprised 174 respondents. Participation was voluntary, and informed consent was provided through completion and submission of the questionnaire after participants had received information about the study.

2.3.3 Statistical analysis

Closed-ended questionnaire data were analysed using descriptive statistics, including means, standard deviations, minimum and maximum values. For each

MES dimension, a mean score was calculated from its four corresponding items and used in subsequent analyses. Overall satisfaction with the exhibition was measured by a single additional item. Descriptive statistics were also calculated according to selected demographic and other relevant characteristics of participants, including age and gender in both groups, authors' country and previous experience in preparing archival exhibitions, and visitors' education and frequency of archival visits. For visitors, descriptive comparisons were also examined in relation to the exhibition visited. Pearson correlation coefficients were calculated to examine associations between the individual MES dimensions. The sample sizes exceeded the recommended minimum ratio of observations to predictors for multiple regression analysis (Field, 2017, Section 9.5). Before conducting the regression analyses, relevant assumptions, including linearity, absence of multicollinearity, independence of residuals, and homoscedasticity, were examined (Field, 2017, Section 9.4.1).

Multiple regression analysis was conducted separately for visitors and exhibition authors to examine the extent to which ratings on the four MES dimensions predicted overall satisfaction with the exhibition (Field, 2017, Section 9.9). Differences between authors and visitors across the individual MES dimensions were examined using Welch's independent-samples t-test, which does not assume equal variances between groups (Field, 2017, Section 10.5). Given that the MES dimension scores were derived from Likert-scale items and that some distributions showed asymmetry, the comparisons were additionally examined using the non-parametric Mann–Whitney U test (Field, 2017, Section 7.4) as a robustness check.

Descriptive statistics, multiple regression analyses, and Welch's t-tests were performed in Microsoft Excel (Microsoft 365), with the Analysis ToolPak used for the regression analyses and t-tests.

2.4 QUALITATIVE COMPONENT

At the time of writing, the quantitative component of the study had been completed, while the qualitative component described below had been designed but not yet conducted. The qualitative component will examine authors' intentions and visitors' experiences and informal learning in relation to the same archival exhibitions. It will combine interviews with exhibition authors and visitors, visitor diaries, and analysis of the exhibitions themselves and related materials.

2.4.1 Selection of archival exhibitions

Six archival exhibitions will be selected purposively to provide a diverse set of cases in terms of exhibition format, content, institutional context, and other relevant characteristics. This variation will allow different exhibition contexts and characteristics to be examined in greater depth. In line with the iterative research design, the selection will also be informed by patterns and contrasts identified in the quantitative phase.

To be included, exhibitions will need to be accessible to visitors during the study's data collection period and located in Slovenia. The selection will seek to include different types of archival institutions. No more than one exhibition will be selected from the same institution.

2.4.2 Interviews with exhibition authors

Semi-structured interviews of up to 30 minutes will be conducted with authors of the six selected exhibitions. As individual exhibitions may have several authors, the number of author interviews will not be fixed in advance. Where an exhibition has multiple authors, additional authors will be interviewed as needed until further interviews no longer provide substantially new themes or relevant insights, following the principle of data saturation (Guest et al., 2006; Saunders et al., 2018). The interviews will be audio-recorded and transcribed.

The semi-structured format will combine predefined guiding questions with open-ended discussion (Mesec, 1998, 80; Ambrož, 2023, 128), allowing authors' intentions, experiences, and reflections to be explored while retaining sufficient comparability across interviews. The interview guide will incorporate relevant themes identified through the Delphi study. Participants will also be given space to introduce issues not anticipated in the interview guide, allowing additional themes and perspectives to emerge.

2.4.3 Interviews with visitors

Short semi-structured interviews of up to 10 minutes will be conducted with visitors to the six selected exhibitions after the interviews with the respective exhibition authors have been completed. The interviews will be audio-recorded and transcribed and will explore visitors' personal impressions, exhibition experiences, and learning during the visit (Salomão, 2023).

In line with the iterative research design, the visitor interviews will combine a common set of guiding questions with questions developed in response to findings from preceding stages of the research. In particular, issues or themes emerging from interviews with the authors of a specific exhibition may be explored with visitors to that same exhibition. The interview questions will therefore not be identical for all participants, allowing exhibition-specific issues to be examined while retaining sufficient common ground for comparison across interviews.

Approximately 6–10 visitor interviews are initially planned, with at least one visitor interviewed at each selected exhibition. Additional interviews may be conducted where needed to explore emerging themes or contrasting perspectives in greater depth. Visitors will be recruited through convenience sampling based on their accessibility and willingness to participate. Within the constraints of convenience sampling, efforts will be made to include visitors representing relevant differences identified in the quantitative phase and a diversity of demographic and other characteristics (McCombes, 2019; Nikolopoulou, 2022). Participation will be limited to adults and will be voluntary. Before the interview, participants will provide written informed consent.

2.4.4 Visitor diaries

Diary entries will be collected from visitors who have previously participated in the semi-structured interviews. The diary method was selected to extend data collection beyond the immediate exhibition visit and to provide additional insight into visitors' experiences and informal learning after the visit (Mesec, 1998, 343–375; Ambrož, 2023, 131; McCombie et al., 2024).

Participants will be invited to complete their diaries in paper or electronic form, according to their preference. Guiding questions will encourage them to reflect on their observations and experiences during the exhibition, their impressions after the visit, and any new knowledge or insights gained. These questions will provide a degree of comparability while allowing participants to express their experiences in their own way. Diary entries will be completed after a time interval following the exhibition visit in order to explore which impressions, reflections, and newly acquired knowledge remain beyond the immediate experience. In line with the iterative research design, the timing of subsequent diary entries may be adjusted on the basis of the initial data collection.

2.4.5 Analysis of exhibition content and presentation

The six selected exhibitions will also be analysed through their exhibited materials, exhibition texts, captions, catalogues, spatial arrangement, and other relevant elements. Data will be collected through direct observation of the exhibitions, photography, and documentation of the arrangement and presentation of exhibits. The analysis will include examining the content and meaning of exhibition texts and comparing relevant elements within and across exhibitions (Roblek, 2009, 57). This analysis will provide contextual information for comparing authors' intentions with visitors' experiences and interpretations.

2.4.6 Qualitative data analysis

The qualitative data will primarily be analysed using a grounded theory approach, allowing patterns and categories to emerge from the data (Mesec, 1998, 52–53; Mesec, 2023, 58–62). The analysis will include interview transcripts, visitor diary entries, responses to open-ended questionnaire questions, and relevant exhibition content and presentation materials described in Section 2.4.5. ATLAS.ti (version 25) will be used to support coding, the organisation of categories, and the identification and visualisation of relationships between them. The GLO framework and MES dimensions will then be used as additional conceptual frameworks for interpreting and comparing the categories that emerge from the data, particularly in relation to visitors' experiences and informal learning.

The reporting of the interview component will follow the COREQ guidelines (Tong et al., 2007). A subset of the qualitative material will be independently coded by a second researcher, and inter-coder agreement will be assessed using Cohen's kappa (McHugh, 2012). Systematic documentation of the analytical process in ATLAS.ti and comparison across multiple qualitative data sources will further support the transparency and rigour of the analysis.

2.5 INTEGRATION OF QUANTITATIVE AND QUALITATIVE COMPONENTS

The research is based on the comparison of two perspectives: those of archival exhibition authors and their visitors. Both perspectives are examined using quantitative and qualitative methods. The quantitative component provides a broader comparison based on data from a larger number of participants and, in the case of

exhibition authors, extends the study beyond Slovenia. The corresponding MES-based questionnaires enable authors' intended visitor experiences to be compared with visitors' reported experiences across the four dimensions of the scale.

The standardised questionnaire, however, cannot fully capture the specific characteristics and contexts of different archival exhibitions. The quantitative comparison therefore serves not only to identify broader patterns of correspondence and difference between authors and visitors, but also to inform the subsequent qualitative phase. In line with the iterative research design, issues that remain insufficiently explained by the quantitative findings can be explored in greater depth through qualitative methods.

The quantitative findings will also inform aspects of case selection and the selection of participants for the qualitative phase. Relevant characteristics include age and gender in both groups, authors' country and previous experience in preparing archival exhibitions, and visitors' education, frequency of archival visits, and the exhibition visited. Where notable differences or patterns are identified, the qualitative sampling strategy will seek to include contrasting perspectives. Where such differences are not evident, greater emphasis may be placed on other characteristics or contrasts emerging from the quantitative findings. In this way, the quantitative phase will inform subsequent sampling decisions rather than merely precede the qualitative phase.

The qualitative component will focus on six exhibitions as individual cases and will bring together three closely related perspectives: the exhibition itself, including exhibited materials, exhibition texts, captions, catalogues, spatial arrangement, and other relevant elements; its author or authors; and visitors to the same exhibition. Data collection will proceed iteratively. The analysis of each exhibition will inform the interviews with its author or authors, while issues emerging from these interviews may subsequently be explored with visitors to the same exhibition. The six cases will be selected to provide diversity in exhibition types, authors, and visitor perspectives. Following the analysis of each individual case, findings across the six cases will be compared and integrated to identify recurring patterns as well as differences related to particular exhibition contexts.

2.6 ETHICAL CONSIDERATIONS

Participation in all components of the study is voluntary. Questionnaire data from both authors and visitors were collected anonymously. Participants in the qualitative component will provide written informed consent before participation and will be informed about the purpose of the study, the use and storage of their data, and their right to withdraw. Visitor data will be anonymised in the reporting of the findings. Due to the identification of the exhibitions examined in the qualitative component, complete anonymity cannot be guaranteed for exhibition authors, who may be identifiable through their association with a particular exhibition. Authors will therefore be explicitly informed of this limitation before providing consent to participate. Audio recordings, transcripts, diary entries, and other research data will be securely stored and accessible only to the researcher and the research supervisors.

2.7. METHODOLOGICAL LIMITATIONS

Several methodological limitations should be considered. First, the literature review was constrained by the accessibility and language of available publications. The review primarily included literature in Slovenian, German, English and Croatian. Exceptionally, publications in other languages were considered when their abstracts indicated particular relevance; in such cases, AI-assisted translation was used, with the recognition that this may have introduced inaccuracies in interpretation.

A second limitation concerns sampling and generalisability. Although the quantitative sample sizes were sufficient for the statistical analyses conducted, participants were not selected through probability sampling. The findings therefore cannot be assumed to be representative of the wider populations of archival exhibition authors and visitors. Furthermore, exhibition authors were asked to respond with reference to an exhibition that had remained particularly memorable to them. Their responses may therefore reflect particularly salient exhibition experiences rather than their typical exhibition practice. In the qualitative phase, participation will likewise depend on participants' availability and willingness to take part, which may affect the diversity of perspectives represented. In addition, the six exhibitions selected for in-depth study will be limited to exhibitions accessible in Slovenia during the data collection period. The range of available

exhibition themes, formats, institutions, and settings will consequently influence the selection of cases.

Further limitations arise from the instruments and concepts used in the study. The MES was originally developed for museum visitors and therefore required adaptation to the context of archival exhibitions. A separate limitation arises from the considerable diversity of archival exhibitions themselves. Even after adaptation, some MES items may be less applicable to particular exhibition formats, as not all archival exhibitions include original archival materials or visual elements such as exhibition panels, maps, posters, or other graphic materials. An additional limitation concerns the adapted version of the MES for exhibition authors. While visitors report their own experiences, authors are asked to assess the visitor experiences they intended or expected when designing an exhibition. The two perspectives are therefore conceptually related but not fully equivalent.

The study also addresses phenomena that are inherently difficult to capture. Exhibition experience and informal learning depend partly on visitors' subjective perceptions and retrospective accounts, while informal learning may occur without being consciously recognised as learning. Authors' accounts of their intentions may likewise be influenced by retrospective interpretation or by a tendency to present their exhibition-making decisions in a favourable light. These characteristics require caution when interpreting correspondence or differences between authors' and visitors' accounts.

The qualitative component is intended to address some of the limitations of the standardised quantitative approach by examining six exhibitions in their specific contexts and integrating evidence from the exhibitions themselves, their authors, and their visitors. The purpose of this phase is not statistical generalisation from a small number of cases, but an in-depth examination of how patterns identified quantitatively can be interpreted, contextualised, or challenged within particular exhibition contexts. Comparison across the six cases may subsequently reveal recurring patterns as well as context-specific differences.

3. DISCUSSION

Archival institutions in Slovenia regularly prepare exhibitions, yet scholarly literature and empirical research on archival exhibitions remain limited (Potočnik,

2004; Valadžija, 2024; Horvat, 2024). The research approach presented here seeks to contribute to a more systematic empirical investigation of archival exhibitions by shifting attention beyond their preparation, content, and professional principles towards their reception by visitors and the experiences and learning associated with them. This perspective may become increasingly relevant as digital technologies enable a growing variety of virtual exhibitions, interactive presentations, and other forms of engagement with digitised archival materials. Although these formats differ from physical exhibitions, questions concerning visitor engagement, experience, and learning remain relevant across different forms of presenting archival materials.

Against this background, the study also contributes to methodological discussion within archival science by combining mixed methods with an iterative research design. An important advantage of iteration is its capacity to respond to findings and methodological issues that emerge during the research process. Rather than treating individual stages as separate and predetermined steps, findings from one stage can inform decisions made in subsequent stages. This is particularly valuable in the study of archival exhibitions, where a standardised quantitative approach enables broader comparison but cannot fully capture the diversity and contextual specificities of individual exhibitions. Iteration allows these broader patterns to be examined in greater depth in subsequent qualitative research and enables questions emerging at individual exhibitions to be explored from the perspectives of both authors and visitors.

Iteration also provides opportunities for methodological reflection and adjustment. Decisions made at an earlier stage can be reconsidered when subsequent methodological evaluation reveals limitations, as illustrated in this study by the replacement of the questionnaire initially developed through the Delphi study with the MES as the quantitative instrument. The iterative design therefore enables methodological responsiveness while maintaining a coherent relationship between the different components of the research. At the same time, such responsiveness requires methodological decisions and changes made during the research process to be documented transparently.

The combination of quantitative and qualitative methods provides a further advantage. A quantitative approach alone can offer a broader comparative perspec-

tive but cannot adequately account for the specific characteristics and contexts of individual exhibitions. A qualitative approach can provide in-depth contextual understanding but does not offer the same breadth of comparison across larger groups of authors and visitors. Combining the two therefore provides a more comprehensive basis for examining the relationship between authors' intentions and visitors' experiences than either approach could provide independently.

The research approach presented in this article cannot yet be fully evaluated, as the qualitative phase and final integration of the data have not been completed. Its relevance, however, may extend beyond the specific context of archival exhibitions. Klasinc (2011) argues that the development of archival science as a scientific discipline requires a clear understanding of the subject, reasons, and methods of research, and emphasises the need to distinguish professional activities from scientific research within the archival field. From this perspective, the approach presented here illustrates how a research problem arising from archival practice can be addressed through an explicit and systematically developed empirical methodology. The combination of quantitative and qualitative methods within an iterative design may therefore offer methodological possibilities for investigating other research questions in archival science, although its broader applicability would need to be examined in further research.

4. CONCLUSION

This article has presented the development of an iterative mixed methods approach for investigating archival exhibitions from the perspectives of both exhibition authors and visitors. By combining quantitative and qualitative methods and allowing findings and methodological considerations from individual stages to inform subsequent research decisions, the approach is designed to examine the relationship between authors' intentions and visitors' experiences and informal learning from both a broader comparative and an in-depth contextual perspective.

As the qualitative phase has not yet been completed, the usefulness of the research approach can only be fully assessed after the integration of all research components. The completed study will allow a fuller assessment of both its contribution to the understanding of archival exhibitions and its potential relevance for empirical research in archival science more broadly.

REFERENCES

Ambrož, M. (2023). *Metodologija raziskovanja v družboslovju: Pragmatični pristop k raziskovanju v družbenih vedah*. Maribor: Alma Mater Europaea – Evropski Center Maribor, Alma Mater Press.

Braun, J. (2017). Now on display: Lessons learned from building a small exhibits program. *Archival Issues, 38*(2), 6–19. Retrieved at https://kb.osu.edu/server/api/core/bitstreams/08b5017f-af1e-4f42-b3fa-14b0d4ac279a/content (accessed on 25 August 2026).

Busetto, L., Wick, W. and Gumbinger, C. (2020). How to use and assess qualitative research methods. *Neurological Research and Practice, 2*, 14. Retrieved at https://doi.org/10.1186/s42466-020-00059-z (accessed on 25 August 2026).

Commission of the European Communities. (2000). *A memorandum on lifelong learning* (Commission Staff Working Paper, SEC(2000) 1832). Retrieved at https://www.uil.unesco.org/sites/default/files/medias/fichiers/2023/05/european-communities-a-memorandum-on-lifelong-learning.pdf (accessed on 25 August 2026).

Field, A. (2017). *Discovering statistics using IBM SPSS statistics* (5th ed.). London: Sage Publications Ltd.

Gerchikova, N. A., Degtyareva, I. A., Lovtsov, A. S., Meltyukhov, M. I., Sabennikova, I. V. and Tkachenko, N. A. (2024). Methodological recommendations for exhibiting archival documents: Features of preparation, characteristics of structure and content. *Vestnik VNIIDAD (Herald of VNIIDAD), 1*, 40–49. Retrieved at https://journals.rcsi.science/2619-1601/article/view/267004/245945 (accessed on 25 August 2026).

GEM (Group for Education in Museums). (2026). *Generic Learning Outcomes Framework 2026*. GEM. Retrieved at https://gem.org.uk/resource/generic-learning-outcomes-framework-2025/ (accessed on 25 August 2026).

Gfrereis, H. (2016). Ausstellung. In M. Lepper and U. Raulff (eds.), *Handbuch Archiv: Geschichte, Aufgaben, Perspektiven* (pp. 225–236). Stuttgart: J. B. Metzler Verlag GmbH.

Guest, G., Bunce, A. and Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods, 18*(1), 59–82. Retrieved at https://doi.org/10.1177/1525822X05279903 (accessed on 25 August 2026).

Horvat, M. (2024). Učinek čustev na pripravo in percepcijo arhivskih razstav. *Moderna arhivistika, 7*(1), 83–95. Retrieved at https://doi.org/10.54356/ma/2024/laty9297 (accessed on 25 August 2026).

Howgill, E. (2015). New methods of analysing archival exhibitions. *Archives and Records, 36*(2), 179–194. Retrieved at https://doi.org/10.1080/23257962.2015.1052784 (accessed on 25 August 2026).

Kim, Y.-J. (2009). Archives and museum exhibitions compared: With the emphasis on the exhibitions held in memory of the 60th anniversary of national foundation. *Korean Journal of Records Management, 9*(2), 104–131. Retrieved at https://accesson.kr/jksarm/v.9/2/103/1165 (accessed on 25 August 2026).

Klasinc, P. P. (2011). Študij arhivistike kot znanstvene vede. *Tehnični in vsebinski problemi klasičnega in elektronskega arhiviranja, 10*(2011), 73–81. Maribor: Pokrajinski arhiv Maribor. Retrieved at https://www.pokarh-mb.si/uploaded/datoteke/Radenci/radenci2011/08_klasinc_2011.pdf (accessed on 25 August 2026).

Lester, P. (2022). *Exhibiting the archive: Space, encounter, and experience*. New York: Routledge.

Lutz, A. (2003). *Vom „bloßen Geklapper" zur „zwingenden Notwendigkeit"? Eine Untersuchung zu den Formen und dem Stellenwert der Öffentlichkeitsarbeit in Staatsarchiven fünf verschiedener Bundesländer und dem Bundesarchiv am Standort Koblenz*. Transferarbeit im Rahmen der Ausbildung für den Höheren Archivdienst, Archivschule Marburg. Retrieved at https://www.landesarchiv-bw.de/six-cms/media.php/120/Transferarbeit2003_Lutz.pdf (accessed on 25 August 2026).

Mesec, B. (1998). *Uvod v kvalitativno raziskovanje v socialnem delu*. Ljubljana: Visoka šola za socialno delo. Retrieved at https://www.dlib.si/stream/URN:NBN:SI:DOC-C11L6WB5/92248721-1c57-48ab-8705-5504e2d439bb/PDF (accessed on 25 August 2026).

Mesec, B. (2023). *Kvalitativno raziskovanje v teoriji in praksi*. Ljubljana: Inštitut za razvojne in strateške analize. Retrieved at https://institut-irsa.si/wp-content/uploads/2023/03/Blaz-Mesec_Kvalitativno-raiskovanje-v-teoriji-in-praksi_2023.pdf (accessed on 25 August 2026).

McCombes, S. (2019). *Sampling methods: Types, techniques & examples*. Scribbr. Retrieved at https://www.scribbr.com/methodology/sampling-methods/ (accessed on 25 August 2026).

McCombie, C., Miguel Esponda, G., Schmidt, U. and Lawrence, V. (2024). Qualitative diary methods in mental health research: A scoping review and recommendations for research and reporting. *European Psychologist, 29*(1), 3–16. Retrieved at https://doi.org/10.1027/1016-9040/a000511 (accessed on 25 August 2026).

McHugh, M. L. (2012). Interrater reliability: The kappa statistic. *Biochemia Medica, 22*(3), 276–282. Retrieved at https://doi.org/10.11613/BM.2012.031 (accessed on 25 August 2026).

Nikolopoulou, K. (2022). *What is non-probability sampling? Types & examples*. Scribbr. Retrieved at https://www.scribbr.com/methodology/non-probability-sampling/. (accessed on 21 August 2025).

Okoli, C. and Pawlowski, S. D. (2004). The Delphi method as a research tool: An example, design considerations and applications. *Information & Management, 42*, 15–29. Retrieved at https://doi.org/10.1016/j.im.2003.11.002 (accessed on 25 August 2026).

Othman, M. K., Petrie, H. and Power, C. (2011). Engaging visitors in museums with technology: Scales for the measurement of visitor and multimedia guide experience. In P. Campos, N. Graham, J. Jorge, N. Nunes, P. Palanque and M. Winckler (eds.), *Human-Computer Interaction – INTERACT 2011. Lecture Notes in Computer Science* (Vol. 6949, pp. 92–99). Berlin and Heidelberg: Springer. Retrieved at https://doi.org/10.1007/978-3-642-23768-3_8 (accessed on 25 August 2026).

Packer, J., & Ballantyne, R. (2002). Motivational factors and the visitor experience: A comparison of three sites. *Curator: The Museum Journal, 45*(3), 183–198. Retrieved at https://www.researchgate.net/publication/227663047_Motivational_Factors_and_the_Visitor_Experience_A_Comparison_of_Three_Sites (accessed on 25 August 2026).

Pekarik, A. J., Doering, Z. D. and Karns, D. A. (1999). Exploring satisfying experiences in museums. *Curator: The Museum Journal, 42*(2), 152–173. Retrieved at https://doi.org/10.1111/j.2151-6952.1999.tb01137.x (accessed on 25 August 2026).

Potočnik, D. (2004). Arhiv kot vir za poučevanje zgodovine. *Pedagoška obzorja = Didactica Slovenica: Časopis za didaktiko in metodiko, 19*(1), 121–127. Retrieved at https://www.dlib.si/listalnik/URN_NBN_SI_doc-FDRYHJFJ/60/index.html (accessed on 25 August 2026).

Roblek, V. (2009). Primer izpeljave analize besedila v kvalitativni raziskavi. *Management, 4*(1), 53–69. Retrieved at http://www.fm-kp.si/zalozba/ISSN/1854-4231/4_053-069.pdf (accessed on 25 August 2026).

Salomão, A. (2023). *Semi-structured interviews in qualitative research*. Mind the Graph. Retrieved at https://mindthegraph.com/blog/semi-structured-interviews-in-qualitative-research/ (accessed on 25 August 2026).

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H. and Jinks, C. (2018). Saturation in qualitative research: Exploring its conceptualization and operationalization. *Quality & Quantity, 52*(4), 1893–1907. Retrieved at https://doi.org/10.1007/s11135-017-0574-8 (accessed on 25 August 2026).

Saurombe, N. (2020). Taking archives to the people: An examination of public programs in the National Archives of the Eastern and Southern Africa Regional Branch of the International Council on Archives. *Archives and Manuscripts, 48*(1), 25–44. Retrieved at https://doi.org/10.1080/01576895.2019.1604242 (accessed on 25 August 2026).

Srivastava, P. and Hopwood, N. (2009). A practical iterative framework for qualitative data analysis. *International Journal of Qualitative Methods, 8*(1), 76–84. Retrieved at https://doi.org/10.1177/160940690900800107 (accessed on 25 August 2026).

Thoma, G.-B. (2009). *Was lernen Besucherinnen und Besucher im Museum? Eine Untersuchung von Lerngelegenheiten einer Museumsausstellung und ihrer Nutzung* [Doctoral dissertation, Christian-Albrechts-Universität zu Kiel]. Retrieved at https://d-nb.info/1019870311/34 (accessed on 25 August 2026).

Tong, A., Sainsbury, P. and Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care, 19*(6), 349–357. Retrieved at https://doi.org/10.1093/intqhc/mzm042 (accessed on 25 August 2026).

Valadžija, Š. (2024). Razstava kot medij za predstavitev arhivskega gradiva. *Moderna arhivistika, 7*(2), 128–143. Retrieved at https://doi.org/10.54356/ma/2024/ibvj8527 (accessed on 25 August 2026).

POVZETEK

Arhivske razstave so tradicionalno pomemben del javnega delovanja arhivov, saj omogočajo predstavljanje arhivskega gradiva in arhivskih ustanov širšemu občinstvu. Novejši pristopi jih razumejo širše, tudi kot prostore interpretacije in dialoga, v katerih se srečujejo pogledi avtorjev razstav in obiskovalcev ter se lahko oblikujejo pomeni, povezani z identiteto, pripadnostjo in skupnim spominom. Kljub temu so empirične raziskave arhivskih razstav razmeroma redke, zlasti tiste, ki proučujejo tako namere avtorjev razstav kot izkušnje obiskovalcev. Prispevek predstavlja razvoj raziskovalnega pristopa z mešanimi metodami, zasnovanega za povezovanje teh dveh perspektiv in proučevanje razmerja med izkušnjami, ki jih avtorji želijo omogočiti obiskovalcem, ter izkušnjami, o katerih poročajo obiskovalci.

Raziskovalna zasnova se je razvijala iterativno, pri čemer so ugotovitve in metodološki premisleki iz posameznih faz usmerjali nadaljnje odločitve. Začetna raziskava po metodi Delphi s strokovnjaki iz slovenskih arhivskih ustanov je bila namenjena prepoznavanju pomembnih vprašanj pri pripravi in dojemanju arhivskih razstav ter oblikovanju vprašalnika za njihove avtorje. Čeprav ta vprašalnik pozneje ni bil uporabljen kot glavni kvantitativni instrument, ker njegove merske lastnosti niso bile empirično preverjene, ugotovitve raziskave Delphi ostajajo pomembne in bodo usmerjale tudi kvalitativno fazo raziskave.

Za kvantitativni del je bila kontekstu arhivskih razstav prilagojena lestvica muzejske izkušnje (Museum Experience Scale – MES), prvotno razvita za obiskovalce muzejev. Pripravljena sta bila vsebinsko usklajena vprašalnika za avtorje razstav in obiskovalce, ki omogočata primerjavo istih štirih razsežnosti izkušnje obiskovalcev: vključenosti, znanja oziroma učenja, doživetij z osebnim pomenom in čustvene povezanosti. Kvantitativna faza vključuje opisno statistiko, korelacijske in regresijske analize ter primerjave med avtorji in obiskovalci. Njene ugotovitve omogočajo širši vpogled ter usmerjajo izbor in vsebinske poudarke nadaljnje kvalitativne faze.

Kvalitativni del bo podrobneje proučil šest arhivskih razstav v Sloveniji. Združeval bo analizo vsebine in načina predstavitve razstav, polstrukturirane intervjuje z avtorji in obiskovalci ter dnevnike obiskovalcev. Zbiranje in analiza podatkov bosta potekala iterativno, kar bo omogočalo nadaljnje raziskovanje vprašanj, pre-

poznanih v posamezni fazi, ter njihovo obravnavo z različnih vidikov. Ugotovitve šestih študij primerov bodo nato medsebojno primerjane in povezane s kvantitativnimi rezultati.

Pristop združuje širše možnosti primerjave, ki jih ponuja kvantitativno raziskovanje, s poglobljenim razumevanjem konteksta, ki ga omogoča kvalitativno proučevanje. Namenjen je prepoznavanju podobnosti in razlik med namerami avtorjev ter izkušnjami obiskovalcev, pa tudi raziskovanju, kako se ta razmerja oblikujejo v konkretnih razstavnih kontekstih. Ker kvalitativna faza še ni zaključena, pristopa še ni mogoče v celoti ovrednotiti. Kljub temu njegov razvoj kaže potencial iterativne zasnove z mešanimi metodami za sistematično empirično raziskovanje arhivskih razstav in lahko ponudi metodološke možnosti za proučevanje drugih raziskovalnih vprašanj v arhivistiki.