# Protocol and ethical challenges for success in research with minors: the case of cultural and museum studies in the context of COVID-19

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## Abstract

This research proposes a protocol of action for the performance of cultural and museum studies with minors in the context of COVID-19, which helps, first, to safeguard minors in focus groups, interviews, and participant observation and, second, to ensure that the research is successful. Development of the protocol entailed a systematised review featuring analysis of an array of documents divided into four scenarios: 1) institutional regulations on research with minors, 2) cultural studies associated with methodologies and minors, 3) cultural studies on applications and emerging technologies applied to minors, and 4) institutional regulations on COVID-19 in museums and schools. This has yielded a proposal for a step-by-step, regulatory, methodological protocol, which is scalable in any discipline and with which to ensure safe studies with children.

## Keywords

# CONTENT

## Introduction

All research involving children poses significant ethical challenges that affect how their participation and the protection of their personal data are managed. To guarantee their safety it is essential to design research that includes ethical processes that will be observed and for these to contemplate any situation that may arise, as well as the procedures to be followed to avoid contingencies. Although universities and research centres, through their ethical management departments, the European Commission, through its guides for usage and protection in research, and legalisation -the General Data Protection Regulation (hereinafter GDPR), in the case of Spain- do actually contemplate a series of factors to protect minors during research, in designing research it is necessary to propose a single protocol that should include protection and safety tools for minors and ensure that all phases of the project run smoothly.

Furthermore, bearing in mind the COVID-19 pandemic, the ethical guidelines must also be brought into line with the health and safety guidelines established by the health authorities for acts held in enclosed spaces.

Neither the specific literature nor the different regulations consulted offer a specific protocol capable of combining both needs and that can be applied mainly to UX design processes in small focus groups or to other types of methodologies such as participant observation, interviews, or user studies.

Hence this research, the main goal of which is the creation of a protocol for the design and performance of cultural and recreational studies involving children that guarantee both the minor's protection and the research's success.

The main goal mentioned above yielded the following specific objectives for this work:

.  To create a theoretical framework on ethics, studies with minors, emerging technologies and museums that helps to understand the needs and limitations of this relation.

.  To create a protocol that includes regulations and research methods to favour minors that is scalable and applicable to other types of research.

.  To extend the protocol by incorporating specific health and safety guidelines for work with focus groups, interviews, and participant observation with minors.

## Theoretical Framework

The design of research involving minors in the field of culture, entertainment, and non-regulated education and, more particularly, in the museum sector, presents a great challenge for researchers. The different studies that have focused on this challenge are based on three core pillars: ethical aspects, the design of methodology, and the learning of minors as they take part in the study.

As far as the ethical aspects are concerned, some authors (Montserrat et al., 2010) deem it essential to apply them bearing in mind the different categorisations that might affect research with children in accordance with the role assigned to them. This means identifying whether the children are considered virtually that same as adults and employ the same methods as those used with them, whether the children are considered completely different from adults,

or whether the children are considered adults albeit with different skills. Other authors, meanwhile, explore this circumstance further and propose that the minors taking part should be active research agents or, in other words, co-researchers of the study (Tisdall, 2012; Collier, 2019).

One of the main points regarding the ethical aspects refers to the handling of information from the research, and it is proposed that the results of the research in which the children have taken part should always be explained to them in a comprehensible way (Egli, et al. 2019).

Research applied to museums involving minors meanwhile tends to entail the use of qualitative methodology, based predominantly on focus groups, interviews and participant observation.

These qualitative data gathering methods have been applied in different projects over recent years. Some of the most significant are the studies by Sutcliffe and Kim (2014), whose research involved the participant observation method in 8 to 10 year-old children on a visit to the South Australian Maritime Museum (SAMM) in order to study how, and to what extent, different techniques of visual, verbal and interactive interpretation of this museum could affect the children's behaviour; by Dilli and Bapoglu (2015), whose study interviewed 6 year-old children after a guided visit to Ankara Natural History Museum to determine how they understood the concept of "extinct"; and by Schorch, et al. (2015), who presented a mixed study that included narrative interviews, focus groups and video-diaries by 11 and 12 year-old students to obtain a general empirical understanding of the impact on students of the interactive, multisensory "Identity: Yours, Mine, Ours" (IYMO) exhibition of Melbourne Immigration Museum, a centre

focused on racism and different cultures. Also significant are the studies by Mendoza and Morgade (2018), who undertook experimental research based on art workshops involving migrant minors at the Museum of Fine Arts of Bilbao with a view to learning about the lives of these young people through their creations; and by Muhametzyanova, et al. (2018) who performed a mixed study that included a systematised review of museums and learning, surveys, and interviews with children, with their parents and with employees of the Kazan Kremlin museum of Tatarstan, Kazan (Russia). The objective of this study was to determine the cognitive interest of 7 to 10 year-old children in historical and cultural heritage.

There are also other studies that gather experiences of research with minors in the museum sector which focus on lessons learned (Brown, et al. 2019). Of these, special attention should be paid to the use of emerging technologies to help improve the visit experience and, as a result, learning. One of the most representative of such studies is the work by Jacoby and Buechley (2013). These authors analysed the use of a computerised system equipped with inks as an expressive medium and used in collaboration with minors. They confirmed that the use of this technology could improve the telling of a story, the design of interaction, the creation of the minors' experience and their learning. There are also other noteworthy experiences that have explored the incorporation of emerging technologies in museums; specifically the research on augmented reality to improve interactivity (Copic et al., 2016), on the optimisation of educational narratives (Kelly, et al. 2017; Schaper et al. 2018), on technology's capacity to motivate participants (Lin et al. 2019), and on the effectiveness of mobile and tablet applications for creating family experiences

during the museum visit (Rennick-Egglestone, et al., 2016; Suriyaku et al. 2017; Arias-Espinoza et al. 2018).

Other emerging technologies studied are the use of interactive avatars for enhancing minors' involvement in museum exhibitions (González et al., 2017); 3D printers for improving understanding of what is said during the museum visit (Turner et al., 2017); sensors for studying the visual and mobile behaviour of museum visitors (Tokuoka et al., 2018), which involved the use of the Kinect sensor; eye tracking devices (Pierdicca et al., 2018); and a 3D interactive videogame (Ball et al., 2020).

In addition to the specific needs involved in working with minors in research studies, the current circumstances of the COVID-19 pandemic and the restrictions it has given rise to also need to be considered. Although the pandemic is a temporary phenomenon, the different waves it has caused, and possible future restrictions make it advisable to consider health limitations as a factor that further conditions research projects. Under these circumstances, different strata of local, provincial, and state government worldwide have developed recommendations and protocols for establishing safety measures in response to the pandemic. Given the location and context of this research (Barcelona, Spain) the recommendations enacted by the Government of Catalonia within the Civil Protection Plan of Catalonia (PROCICAT) have therefore been taken into consideration. It features a series of documents that compile the rules on how to respond in the event of emergencies associated with infectious diseases with a high potential risk (Gencat 2020a, 2020b, 2020c), more specifically associated with COVID-19.

The line of action that appears in these reports includes specific measures appli-cable to museums and, tangentially, also to children through their activities in schools. However, other than these political measures, no protocols or specific regulations developed by universities or published in academic articles are currently to be found that can help researchers in designing studies capable of protecting children from COVID-19, whether related to the organisation and management of focus groups, participant observation, interviews, or user studies.

## Methodology: Design of the Bibliographical Review Introduction

The development of the protocol of action applied to cultural and recreational studies with children in the context of COVID-19 contemplates four areas that were deemed to be sources of information:

. Institutional and European regulations on research with minors

. Cultural and museum studies associated with methodologies and minors

. Cultural and museum studies on emerging technologies applied to minors

. Documents approved by the PROCICAT Technical Committee for emergencies associated with emerging infectious diseases with a high potential risk on 3 July 2020, most specifically the measures applied to museums and schools.

Obtaining the regulatory documents on studies with minors first entailed contacting the Institutional Committee for Ethical Review of Projects (hereinafter CIREP) of Pompeu Fabra University, a pioneering

centre in incorporating external commissions for ethical validation of research in Spain. They were asked for advice and documentation to analyse processes on best practices in studies with minors. The webpage of the CIREP was also analysed and its ethical guides and its templates on ethical review procedure were downloaded and systematised. Lastly, guidelines on studies with minors promoted by different European Commission programmes were also examined.

Furthermore, the identification of the array of documents associated with methodologies and minors in museums entailed the following process, which takes into consideration systematised reviews (Hart, 2008; Urrutia & Bofill, 2010; Booth et al., 2012; Codina, 2018).

The steps taken were as follows. Because of their scientific impact, the Web of Science and Scopus databases were chosen as sources of review. A general search, featuring the following search equations, was run:

. "Research methods" AND "children" AND "museum"

. "Research methods" AND "children" AND "humanities"

. "Research methods" AND "children" AND "social science"

Having launched the general search, a second systematised review was performed to yield academic articles associated with emerging technologies and children in museums. A preliminary prospective analysis defined the search terms, which were completed as the equations were launched in the search systems of the two academic databases.

. "Tablets" AND "children" AND "museum"

. "App" AND "children" AND "museum"

. "Immersive installations" AND "children" AND "museum"

. "Conductive inks" AND "children" AND "museum"

. "Augmented reality" AND "children" AND "museum"

. "Sonification" AND "children" AND "museum"

. "3d" OR "4d" AND "children" AND "museum"

. "Gestural interaction" AND "children" AND "museum"

. "Artificial intelligence" AND "children" AND "museum"

. "Avatar" AND "children" AND "museum"

Once the array of documents had been procured and screened for false positives, they were summarised to create the protocol of action.

Lastly, as mentioned above, it was necessary to identify measures for safeguarding minors and researchers during focus groups, interviews, and participant observation in the context of COVID-19. To do this, the following institutional references announced by the Government of Catalonia were compiled and analysed:

. The report describing the measures applied in schools for the start of the 2020-2021 academic year complementary to the provisions of the "*Plan of action for the 2020-2021 academic year for schools in the context of the pandemic*" (hereinafter,

Plan of action), which was approved in the PROCICAT in July 2020.

. The "*Plans for reopening the cultural sector: Museums*" report. This document was approved in July 2020 by the PROCICAT Plan Technical Committee for emergencies associated with emerging infectious diseases with a high potential risk.

Both reports specifically cover actions applied both to schools and to museums. Although they are not designed for application in research, the recommenddations were used as guidelines for developing a protocol of action with health and safety procedures for use in focus groups, interviews, and participant observation with minors.

## Results

The following tables and sheets indicate the results obtained from the research. Analysis of each document arising from the systematised review is followed by the reproduction of a protocol of action applicable to the design and performance of cultural and recreational studies involving minors. This protocol's system is twofold as it covers both the steps to be followed from the ethical protocol for performing research involving minors as well as a system to verify the health and safety of the minors and researchers participating in a study.

The following table features a breakdown of the protocol with (1) considerations regarding the consent of the minor in the research, (2) considerations regarding its methodological application and (3) considerations regarding the safety of the minor and the researcher against COVID-19.

| Steps to be fulfilled in complying with the standardised protocol (CIREP and EC) | |
|---|---|
| **1. Preliminary considerations** | |
| Steps | Description |
| 1.1 | Research with children should be performed only if studies with adults who have given consent are not effective, if participants are subject to minimal risk and burden and/or if the research results benefit the individual or group represented by the participant. |
| **2. Informed consent** | |
| Steps | Description |
| 2.1 | Two informed consent forms signed in writing are required. One for parents and/or legal representatives (6 to 14 year-old age range) and the other for 14 to 17 year-old teenagers. |
| 2.2 | The consent of participants and of the parents and/or legal representatives (whenever possible) is required. |
| 2.3 | If it is not possible to obtain written consent (for reasons of illiteracy for example), unwritten consent must be formally documented and witnessed independently. |

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| 2.4 | Participants should be asked for consent if they come of age during the research process. |
| 2.5 | The informed consent form and detailed information sheets must be written (read and explained orally if necessary) in such a way that both parents and/or legal representatives and children understand them perfectly and must guarantee they are sufficiently informed about the purpose of the research study. |
| 2.6 | The criteria of recruitment, inclusion and exclusion from the sample and the procedures followed for drafting and obtaining informed consent should be detailed. |
| 2.7 | The form must describe the age range, the objectives, the methods and implications of the research, the nature of participation and any benefit, risk, or inconvenience to which it may give rise. |
| 2.8 | The form must provide information on what steps will be taken to guarantee the welfare of the child or minor and the justification there is for involving minors. |
| 2.9 | The form must include a section featuring an explicit declaration that participation is voluntary, and that any person has the right to refuse to participate and withdraw from taking part and withdraw both their personal data and those resulting from the research. |
| 2.10 | The form must indicate how data will be collected and protected during the project and whether it will be subsequently destroyed or reused. |
| 2.11 | The form must indicate what procedures will be implemented in the event of unexpected or incidental findings. |
| 2.12 | The form must indicate how participants can access to data the participants provide. |
| *3. Safeguarding the child's welfare* | |
| Steps | Description |
| 3.1 | An active relationship with the legal guardians and/or carers of participating children must be upheld, and they may even also be allowed to monitor the research. |
| 3.2 | When young children are involved in the research, verbal or non-verbal clues should be checked to make sure that they are not unwilling to take part. |
| 3.3 | The principle of proportionality must be applied, especially regarding data collection and protection and the participants' privacy. |
| 3.4 | The methods used must be proportional to the objectives of the research. |
| 3.5 | Confidentiality is important and the exchange of information should be proportional to the risk of harm. |
| 3.6 | A research protocol should be written that safeguards children and minimises any inconvenience, intrusion, embarrassment, coercion, or anxiety. |

| 3.7 | The researcher's status could also be a problem, both insofar as the child's needs and the researcher's own protection are concerned. |
| 3.8 | Interviews with children must be performed by two researchers or in areas where the researcher and the child are not entirely alone, to protect both the child and the researcher (inappropriate behaviour or false accusations). |

| 4. Data processing | |
| --- | --- |
| Steps | Description |
| 4.1 | Personal data must comply with the minimum standards of the General Data Protection Regulation (hereinafter GDPR). |
| 4.2 | Compliance with the GDPR's principle of accountability. |
| 4.3 | Compliance with the GDPR's principles of data protection by default and by design. |
| 4.4 | Compliance with the GDPR's principle of transparency. |

| 5. Verification of ethical questions | |
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| Steps | Description |
| 5.1 | Please answer the following question: Have participants and/or their legal representatives been offered copies of ethical approvals? |
| 5.2 | Please answer the following question: Has informed consent been obtained? |
| 5.3 | Please answer the following question: Have the procedures for obtaining approval from the parents and/or legal representative and the agreement of the children or other minors been detailed in the informed consent? |
| 5.4 | Please answer the following question: Have the steps that will be taken to ensure that participants are not subject to any form of coercion been explained in the informed consent or on the ethics sheets? |
| 5.5 | Please answer the following question: Have the participants and/or their legal representatives been given a clear explanation as to the objectives, the general purpose, the methods, and the implications of the research? |
| 5.6 | Please answer the following question: Have the participants and/or their legal representatives been informed that participation is voluntary? |
| 5.7 | Please answer the following question: Have the participants and/or their legal representatives been reminded that they have the right to withdraw their consent at any time without consequence? |
| 5.8 | Please answer the following question: Have the participants and/or their legal representatives been informed of the level of benefit, risks, burden, or inconvenience involved in taking part in the research? |
| 5.9 | Please answer the following question: Have the participants and/or their legal representatives been informed of what actions will be taken throughout the research with a view to guaranteeing participants' safety? |

| 5.10 | Please answer the following question: Have the participants and/or their legal representatives been informed of the clear commitment to processing the information confidentially? |
|---|---|
| 5.11 | Please answer the following question: Have the participants and/or their legal representatives been given a clear explanation of who will have access to the data the participants provide? |
| 5.12 | Please answer the following question: Have the participants and/or their legal representatives been informed of how these findings will be dealt with? |
| 5.13 | Please answer the following question: Have the participants and/or their legal representatives been provided further information on the research if requested? |
| 5.14 | Please answer the following question: Has the name, email and/or telephone number been provided of the contact person who can answer any enquiry that the participants and/or their legal representatives may have? |
| 5.15 | Please answer the following question: Have the possible uses of the data obtained from the research for future studies been made clear to the participants and/or their legal representatives? |
| 5.16 | Please answer the following question: Have the general principles of the GDPR been met? |

There follows a description of the recommendations for methodological application in studies involving children and teenagers. This compilation of principles has been obtained from the systematised reviews and includes ethical considerations and contemplation of research support tools, formats, and the use of technologies.

| Considerations about methodological protocol | |
|---|---|
| *1. Common to all the methodologies and tools* | |
| Steps | Description |
| 1.1 | Research with children may only be undertaken if studies with adults have not been effective, if participants are not subject to risks of any kind and/or if the results of the research may benefit the minor or group of minors. |
| 1.2 | The chosen methodology must coincide with the project's research questions, respect the limitations of time and resources, be sensitive and ethical, and take into consideration participants' particular characteristics and needs, and the cultural and physical environment where it is performed. |
| 1.3 | When working with children, the researchers must have the cooperation of parents, legal representatives, or teachers. |
| 1.4 | Minors, parents (or legal representative or caregivers, if the case) must be perfectly familiar with the project. To ensure that they are, researchers may use informative brochures, tapes, and letters and give oral presentations to help them to explain the project. |

| 1.4.1 | Videos and audiovisual clips are being used increasingly as an amenable and easy-going method of presenting a research study to children, and what taking part would involve. |
|---|---|
| 1. 4.2 | The use of simple language, with short, active-voice sentences and with no jargon or acronyms, is strongly recommended for leaflets. It should be accompanied with diagrams, speech balloons or images, and be in large print. Draft brochures should be reviewed with children and they should give their opinion. |
| 1.5 | Children's participation should contemplate the environment and surroundings in which the study is performed, with consideration for the space, and the time limits, etc. to safeguard children's welfare. |
| *2. Methodological and ethical considerations: Interviews and focus or discussion groups* | |
| 2.1 | To establish a good relationship between researcher and minor, it is advisable to start asking about things that the child already knows or perceives as relatively non-threatening such as specific daily events, routines, or feelings. |
| 2.2 | A "free narrative" period at the start of an interview is recommendable, as it facilitates both the child's settling in phase and the interviewer's understanding of the child's communicative style and concerns. |
| 2.3 | Less difficult questions should be asked first. |
| 2.4 | When interviewing children, use of non-verbal behaviours (making eye contact, head nodding) and verbal prompts and exclamations such as "tell me more about…" by the researcher is particularly appropriate. Exclamations are, however, not appropriate as they may condition or induce the child's responses (adjectives such as "great", "incredible" etc. should not be used). |
| 2.5 | The use of closed questions should be avoided when interviewing. |
| 2.6 | Children should be told that there are no right or wrong answers to minimise risks and frustrations, and to reassure them. |
| 2.7 | It is advisable to avoid complex words and words that are too simple, as should questions that encourage children to give simplistic answers. |
| 2.8 | The ideal approach both for the interviews and for the focus groups would be to suggest activities and techniques that help to make the interview more fun and interesting for the children. |
| 2.9 | Breaks may be taken during interviews and focus groups and they may even be stopped for a snack or drink (observing dietary requirements) to keep the children interested and focused and to prevent them from growing tired. |
| *3. Research support tools* | |
| 3.1 | Making payments: Payments, either in cash or coupons, to participants is rather a controversial matter. Some authors recommend it, while others advise against. If payments are made, however, the decision to do so must be announced during the interview and not beforehand, as it may condition the minor's willingness to take part. |

| 3.2 | Photographs: Researchers are increasingly asking children to take their own photographs so they may be used subsequently as stimuli for the interview, rather than using someone else's photos. Children's own images may also be used in an interview as a tool to help them to develop their responses to specific questions while at the same time allowing them to express aspects of their lives in a unique way. |
|---|---|
| 3.3 | Photovoice: This is method that includes the generation of photographs, taken by participants. The children themselves briefly describe what their photographs mean. This can be done in groups to create class books (a book with images and comments recorded while planning, taking, and looking at the photographs) and photo-novels (photographs that are used not only to prompt debates and dialogues, but are also manipulated and organised in narrative format). |
| 3.4 | Drawings: Drawing has been used as a (generally fun) way for children to express their own views and experiences. Drawings can be used to break the ice, they can help children to relax and to establish rapport, they can act as triggers and prompts for remembering or generating discussions, and they can help children to structure their own narratives. The technique can also give children more control during the interview. The drawback is that not all children like drawing and teenagers may also have certain reluctance, as they consider it too childish a task. |
| *4. Formats* | |
| 4.1 | Stimulus material: When interviewing children, researchers can use prompts and materials to stimulate their response. Items, such as choosing words from a list, for example, may be used to complete sentences. |
| 4.2 | Feelings cards: Feelings cards or cards of faces showing feelings are primarily used to prompt communication when asking about sensitive topics. |
| 4.3 | Diaries and other life storytelling techniques: Young children have been encouraged to tell their own life stories in a wide range of forms and formats such as life story books, scrapbooks, diaries, and life maps. Diaries are particularly useful for exploring children's use and perception of time. For some children, however, diaries may seem too much like schoolwork, although for others they can be a valuable form of communication |
| 4.4 | Story games: Story games are often used when children's stories may have been traumatic or trigger strong emotional responses on a personal level. They involve children creating a story, whereby each child is invited to offer one line of the story, which is passed from one child to another until it is complete. |
| 4.5 | Life story books: Children's life story books allow children and others to understand their past experiences and enable them to talk about themselves in a structured way, while helping them to build their own identity. They usually include photographs, drawings, words, and documents that give a chronological account of the child's story. They have a flexible format and could therefore be, |

| | |
|---|---|
| | for example, a photo album with text, a chart, or even a timeline. |
| 4.6 | Questionnaire: Questionnaires are presented in a way that uses a friendly format for children (for example, they are asked to draw answers). Questionnaires come with the advantage of allowing large amounts of data to be collected and managed and they are often easier for children to answer. The drawback is that if they are not well designed, they may be difficult to respond to and therefore require a certain level of literacy. |
| 5. Use of technologies | |
| 5.1 | The GDPR establishes special safeguards for children in relation to "information society services", a broader coverage that includes all Internet service providers, including social media platforms. |
| 5.2 | Verified parental consent is required for information society services offered directly to children under 16 years of age. |
| 5.3 | When compiling data from children who use Information and Communication Technologies (hereinafter ICT), for example, from social media platforms or applications, observation of the safeguards established in national and European Union laws must be guaranteed. |
| 5.4 | When compiling data from children who use ICT, the researcher's proposal must feature an explanation of how the consent of the parent/legal representative regarding their use will be obtained and verified. |

Lastly, featured below is the protocol of action for children and teenagers with consideration for the safety of the minor and of the researcher against COVID-19.

| COVID-19 safety protocol for focus groups, interviews, and participant observation with minors in museums | | |
|---|---|---|
| *1. Measures for researchers in focus groups, interviews and/or participant observation in museums or cultural amenities* | | |
| Steps | Description | |
| 1.1 | Researchers must apply a general safety protocol between leaving home to go to the museum and upon their return. This protocol should include social distancing, the use of a mask, and hand hygiene. Additionally, if transport is used to reach the museum, the researchers must observe the safety indications established for the means of transport. | |
| 1.2 | Upon arriving at the museum, researchers must have their temperature taken (it should not exceed 37.5°C). If their temperature does not exceed 37.5°C, they may enter the museum premises, wearing a mask. They must then wash their hands with hydroalcoholic gel. | |

| 1.3 | Having completed the above steps, the researcher or researchers may meet in the room with the minors, while constantly wearing a mask and maintaining a general physical interpersonal safety distance of 1.5 m or observing an equivalent safety area of 2.5 m2 per person. |
|------|------|
| 1.4 | Researchers must inform the minors of the safety regulations established both in the museum and for them, and the purpose of the research to be performed with them. |
| 1.5 | All the participants and researchers must observe the established safety distance and use a mask. |
| 1.6 | If the minors are required to use some type of electronic device for the purposes of the research (mobile, tablet, etc.), it must be disinfected. If the electronic devices belong to the museum, when they are loaned to the minors, they must be disinfected. When the minors return them, they must also be disinfected. If electronic devices are for personal use, minors may not share them. The researchers must warn them of this measure. |
| 1.7 | In addition, if the minors do not know how to interact with the tablet at some point during the task and ask the researchers how to do so, the latter must show them from their own tablet and not touch the minor's device. |
| 1.8 | Use during the research by the minors of any other type of element such as headphones (audio guides) is prohibited in the regulations. The minor could be offered disposable headphones or asked to use their own headphones for the session. |
| *2. Research space* | |
| 2.1 | While on the museum tour, information must be available indicating the maximum capacity conditions and the protection measures to be applied to minors and researchers (use of a mask, hand washing, etc.). |
| 2.2 | Horizontal marking of the routes to be followed must be established, with indication of safety distances in the rooms, toilets, common areas, etc. |
| 2.3 | Access and exit routes must be clearly identified. |
| 2.4 | Hydroalcoholic gel dispensers must be installed in specific areas of the museum. Lid and pedal bins must also be installed. These bins must be cleaned at least once a day. |
| 2.3 | Open spaces must by equipped with closure elements and control of maximum capacity. |
| 2.4 | All toilets must be equipped with hydroalcoholic soap or gel with dispenser and disposable towels. |
| *3. Measures for children in focus groups, interviews and/or participant observation in museums or cultural amenities* | |

| 3.1 | Preference should be given to schoolchildren in groups and not to random children from different schools. Work must therefore be with stable social groups (in the same class) as it provides for better safety against COVID-19. |
|-----|---------------------------------------------------------------------------------------------------|
| 3.2 | Upon arriving at the museum, the minor or school group must have their temperature taken (it should not exceed 37.5℃). If they do not exceed this temperature, they may enter the museum premises, wearing a mask. If their temperature exceeds 37.5℃, they may not enter the premises. Both students and school staff must then wash their hands with hydroalcoholic gel. |
| 3.3 | Stable social groups may not include over 20 students in general. If there is a larger number of minors, smaller groups must be established for participating in the study on a staggered basis and at different times. |
| 3.4 | Group size must allow for an interpersonal safety distance of 1.5 m or observing an equivalent safety area of 2.5 m2 per person. Physical contact with objects on display must also be avoided. |

## Conclusions and discussion

This research involved exploration of the importance of developing a model protocol for cultural and recreational studies in children that helps the minor, contributes to the success of the research, and complies with the necessary COVID-19 protective safety measures.

The following section reviews the objectives and verifies the degree of compliance therewith.

O1.

In the context of museums, the regulations of the CIREP, of the European Commission, of the GDPR and of the systematised reviews applied to methodologies in minors, have allowed for the development of a theoretical framework covering the main ethical challenges involved in research work with minors, be it in the context of a museum or in any other discipline entailing work in focus groups, in interviews or through participant observation.

This is apparent in the data obtained from both the systematised review and the regulations studied. In the context of studies with minors, the research has shown which operations and productive routines should be established to meet the needs of the minor and of the research.

Although the CIREP is a body pertaining to Pompeu Fabra university, all its documentary material on ethics and personal data protection in research activities and academic practices related to minors can be used to generate a standard that is generally applicable to social sciences and humanities projects.

One might think that since this body evaluates the research projects of one specific university, it may therefore have certain limitations. The project was therefore backed up with the study and systematisation from EU ethical guides (2010; 2013; 2018a; 2018b; 2019), from the GDPR (2018) and from other studies by researchers featuring information on how to perform ethical approval with minors (Schorch et al., 2015), how to request informed consent

forms (Sutcliffe and Kim, 2014) and how to explain the research results to participating children (Egli et al., 2019).

*O2.*

The study undertaken has provided a framework protocol that encourages coherent agglutination of the main strategies to be considered when performing research involving minors.

This framework includes methodological and ethical considerations with special emphasis on qualitative methods such as focus groups, participant observation and interviews, and contemplation of research support tools, which includes formats and use of specific technologies.

Although some researchers have indeed undertaken critical analysis of how to go about research with minors from the perspective of methodologies and tools, they have not proposed a specific framework such as that developed in this study.

Fargas-Malet, et al. (2010) for example, offer an up-to-date examination of methodological and ethical issues that researchers may need to consider when designing research studies involving children; Tisdall (2012) reflects on the challenges there are in research applied to minors and more specifically to minors with disabilities; and Collier (2019) studies co-research with children regarding education and participation in spaces and digital tools.

All the key ideas of these researchers have been gathered and systematised within the framework with a view to creating a standardised ethical process, which can easily be applied to research of any kind involving minors.

In short, it is a checklist of ethical matters that helps to safeguard the integrity of both the minor throughout the research process

and, also, the investigator, as researchers can apply it by way of a safe and thorough work process for the effective development of their research.

*O3.*

Analysis of the measures developed by the Government of Catalonia to protect the population against COVID-19 has allowed for identification of the safety guidelines for museums and qualitative studies with minors.

These guidelines not only ensure maximum safety for children and researchers but have also helped to improve the initial protocol and yield a comprehensive framework adapted to pandemic scenarios, as it applies both to ethical-methodological and to health matters.

Although it is true that analysis and systematisation of PROCICAT decrees, reports, and plans (2020a; 2020b; 2020c) may be limited in their application as they only strictly affect Catalonia, they may be practically useful in other regions and countries as the PROCICAT reports essentially adapt recommendations established within the common European framework and are all health measures accepted by the WHO.

In addition, the regulations studied that refer to health measures in museums and schools are also adaptive and scalable. On the one hand, museums are closed sites and therefore, any space not outdoors in which research is performed with children can apply the measures detailed in this protocol, thus ensuring the integrity of minors and researchers. On the other, it is common for researchers to work with schools and educational institutions, which tend to take part in academic research initiatives with their students. It is therefore essential for researchers to apply these institutions'

general safety measures to groups of minors from the same classroom or school taking part in a focus group, in interviews or in participant observation.

In short, this study has made it possible to propose a step-by-step, regulatory, and methodological protocol with anti-COVID-19 health measures that can be directly applied to museums and recreational spaces with a view to producing safe studies with children. This protocol is, moreover, scalable and can therefore be used by researchers and adapted to their needs.

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This research proposes a protocol of action
for the performance of cultural and museum studies
with minors in the context of COVID-19,
which helps, first, to safeguard minors in focus groups, interviews,
and participant observation
and, second, to ensure that the research is successful.
This has yielded a proposal for a step-by-step,
regulatory, methodological protocol,
which is scalable in any discipline and with
which to ensure safe studies with children.

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