Mingei

Representation and Preservation
of Heritage Crafts

A Hands-on Guide To Increasing the Impact of Digital Heritage Projects

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1. Executive summary

This publication is a hands-on guide for heritage professionals who are interested in enhancing the impact of their digital projects. Impact in the Mingei project is centred on impact that can be created over the course of a project's duration, rather than after a product launch. This guide therefore focuses on the organisational learning that occurs throughout a project in four ways: better understanding your stakeholders and creating effective partnerships; collaboratively improving the relevance and impact potential of your product through co-creation; applying Teams-Based Inquiry to iteratively evaluate and improve impact; and using the Generic Learning Outcomes to plan for and assess impact.

The first part of the report helps you to identify the people, groups and organisations that are relevant to your organisation or project. You will be guided to prioritise them in terms of their relevance. You will then be shown how to map your stakeholders while categorising them according to proximity, knowledge and trust. Guidance is given on how to establish contacts and build trust with your stakeholders.

Once you know your stakeholders, we recommend co-creation as a tool that helps you use their perspectives to increase the relevance of your prototype or activity. We introduce the seven mindsets of co-creation and the five stages of co-creation. We share a guide to the types of co-creation activities that could be run with different stakeholders and share a link to the Waag Co-Creation Navigator where you can find more resources on co-creation.

Next you are guided through Teams Based Inquiry, an iterative evaluation method developed by the Nanoscience Informal Science Education Network (NISE Net) to help education professionals reflect on their educational programmes, collect data and make changes (Nanoscience Informal Science Education Network (n.d. A)). Different components of the four stages of TBI - Question, Investigate, Reflect and Improve - are introduced. Appendix two sets out common techniques used in the investigate stage (observation, written feedback and interviews).

Finally, the Generic Learning Outcomes are introduced as a way to plan, evaluate and improve, and report impact. It is introduced in the context of TBI cycles as a way to support the four different stages of the TBI, including, for example, the formulation of the question and the reflection (data analysis) stage.

This tool is filled with examples from the Mingei project to help you apply the approaches outlined in this toolkit and to further share the learnings that we have experienced as a result. We hope that this will help you to increase the organisational impact of your digital heritage projects.

2. About the Mingei project

This guide has been developed as part of the Mingei project, a three-year EU-funded multidisciplinary international digital project, with partners from the fields of academia, technology, heritage and innovation in heritage policy and practice. Through this H2020 Innovation Action we have worked together to preserve, represent and make accessible both the tangible and intangible aspects of traditional crafts so as to preserve and promote the technical, historical, and social knowledge in which they are embedded.

As with most technical multi-year projects, the products being developed are usually finished and ready for exploitation when the project ends. This has led us to review the concept of 'impact'. Rather than focusing on 'impact' as what happens after the product (and project) is finished, we decided to view impact as something that has the potential to occur and be improved throughout the project. We therefore decided to analyse and improve impact in three areas:

- **Relationships of heritage partners with stakeholders:** building new networks, working with local craft communities.
- **Skills development amongst heritage partners:** using new tools, identifying and exploring new creative opportunities and craft areas.
- **Strategising:** developing a mid-term and long-term strategy to ensure future impact and encourage legacy of the project and its learnings with the heritage partners.

The content of this guide has been used in practice in the Mingei heritage partners and is being widely shared to help other heritage organisations to increase the impact of their digital heritage projects.

3. Introduction

3.1 About this guide

This guide is intended to help heritage professionals think about the impact a digital heritage project - of any size - has on their organisation and their stakeholders. In thinking about impact, we encourage them to work collaboratively with their project partners to better understand and improve the impact of their digital heritage project throughout its life cycle.

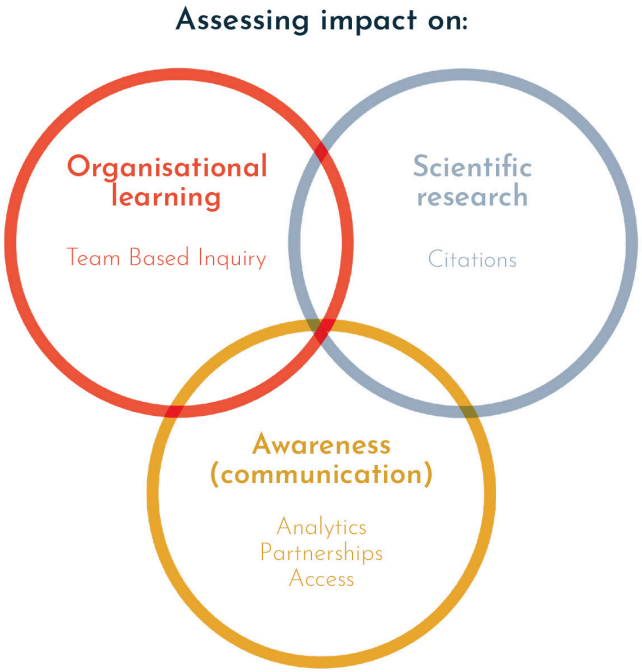


Figure 1. Ways to measure impact. Source: Mingei Project, author: Dick van Dijk, 2019.

This guide will focus specifically on impact as organisational learning. Based on past experiences and our work in the Mingei project, we know that organisational learning depends on a mutually supportive, equitable and proactive partnership. In addition, clear communication, shared goals (for example, with regards to learning objectives) and a cycle of observation, experimentation and reflection are important in any partnership. To increase organisational impact, this guide introduces you in a hands-on way to a number of key toolkits and approaches that we have used and that have been developed by heritage and educational bodies. The key methods and tools that will be referred to throughout this guide are: stakeholder mapping, co-creation, Team Based Inquiry and the Generic Learning Outcomes. We also reference other resources, including, for example, the Europeana Impact Playbook.

This guide will reflect on the role of heritage organisations within digital projects and will provide tools to analyse and increase the impact of the project for the organisation and its stakeholders.

3.2 Definition of impact

Impact, first and foremost, is about change. The question at the heart of every project-related impact study therefore is: What has changed as a result of this project?

When the goal of your project is to develop a (digital) product, it can be tempting to think that impact is closely related to this end-product. Measuring the impact of your project can then become as simple as measuring the success of your end-product. But it is important to remember that impact *is not the same* as success or the number of people reached. A successful product is of course likely to have a bigger impact than a less successful product. But when we look at the impact of a project as a whole, and not just at its end-product, we will be able to see a much bigger picture. This allows us to learn more about the ways in which we can be more relevant to our stakeholders, how we can support them and what we can offer them.

Many definitions of impact exist, and for the Mingei project we have adapted the definition of impact set out in the Europeana in the *Impact Playbook* (Verwayen et al (2017)), as follows:

> **Impact in digital heritage projects can be understood as the change or changes that occur for stakeholders or in society as a result of activities undertaken by a heritage organisation and their partners. It can also be the result of organisational change processes experienced by the heritage organisation and/or their partners.**

3.3 The context: heritage organisations and digital heritage projects

Digital heritage projects come in all shapes and sizes. Sometimes a digital project is created by a museum, archive or heritage site. In other cases, for example, in international EU-funded projects, the heritage organisation might be one of many partners in a consortium. Every partner has their own reason to join the consortium; to carry out ground-breaking research; to work on state-of-the-art technology solutions; to test the boundaries of current digital tools, and so on.

Whether the heritage organisation is in charge of the digital project, or is a partner in a consortium, they will always be part of a team. Because any digital project relies heavily on technical skills, skills heritage professionals might feel they are lacking, it is tempting for them to take on one of two roles: that of a client or that of a 'test site'. As a client, they can say what they want the end-product to be but they might wish to keep their distance from any practical or technical work that needs to be done. As a test-site, a heritage organisation can offer access to their collections or visitors to the technical partners of the project but might feel they don't need to engage in much of the decision making or practical work.

While both roles might be valid, they also allow the heritage organisation to step away from the digital development process.

This is because heritage professionals working with digital experts might feel they don't have the relevant expertise or knowledge to contribute to the project. This can prevent heritage professionals from fully engaging in all stages of the project. It is important to remember that heritage professionals, too, hold expertise that is crucial to the project impact. To truly engage in co-creation, proactive and effective partnerships need equity, balance and shared ownership.

3.4 Proactive partnerships

Proactive partnership working is especially important for a digital project. Developing digital products relies on relatively short and iterative cycles of making, testing, reviewing what went wrong, adjusting and moving forward. It can be difficult for heritage organisations to adapt to this way of working. In many cases, audience-focused projects, like exhibitions, school programmes and events, are developed in a more linear way.

Digital heritage projects, therefore, do not only bring together people with different kinds of expertise (tech and heritage): they also create a space where different sets of assumptions and different types of languages meet. This is a challenge, because those involved cannot rely on mutual understanding or past experience. Being a proactive partner from the beginning of the project will allow heritage organisations to familiarise themselves with their technology partners' ambitions and will make it possible for the needs of their heritage site, museum or archive to become familiar to technology experts before major milestones appear on the horizon.

What does all this have to do with impact? First of all, the iterative nature of technology projects allow for many moments in which impact can be created. Impact is not only created at the very end, when the final product is released. Heritage organisations and their key stakeholders can impact and be impacted by the process. By being actively involved in the digital heritage product creation process, heritage partners and their key stakeholders will develop skills and be able to contribute insights that will improve the potential for the product to have an impact. It's important to have the right partnerships in place and for that, we need effective stakeholder mapping.

4. Stakeholder mapping

4.1 Identify, analyse, map and prioritise

A good way to start your stakeholder mapping is to map the rich ecosystem of stakeholders that surround your organisation and/or project, followed by a more focused analysis. We recommend using these four steps, based on an approach developed by BSR (Taylor et al (2019)). It is most valuable to do this exercise as a team - the more diverse your team is, the richer the outcome will be.

- ✔ **Identify:** Who are the people, groups and organisations that are relevant to your organisation or project? Heritage organisations often use the term 'target audience' when they discuss the people they want to reach with their work. This allows you to use relatively abstract terms, such as 'school groups', or 'families with young children'. When we talk about stakeholders, it is important that your list is concrete. So instead of 'school groups' list all the schools you work with or want to work with. Stakeholders are always identifiable (groups of) people.
- ✔ **Analyse:** In order to cater to your stakeholders, you have to understand their interests and perspectives. What is their relevance to your organisation? And more importantly, what is or could be your relevance for them? To define a stakeholder's relevance, you can score them on the following points:
    - Contribution – How can they contribute to your project?
    - Legitimacy – How is their knowledge & experience validated?
    - Access – Is the stakeholder in a position to contribute to and engage in your project?
    - Value – How is the involvement of this stakeholder crucial for the development of your project?

This four-point assessment was used as part of Mingei's co-creation process. Other tools, like the Europeana Impact Playbook's empathy map, will help you understand your stakeholder through similar lenses, for example, by considering their pains and gains.

- ✔ **Map:** Use a large piece of paper or a whiteboard to map out your different stakeholders. How do they relate to each other and to the objectives of your project? By visualising these relationships, placing stakeholders closer together, or further apart, your team will develop a shared understanding of your stakeholder relationships. Keep in mind that relationships might already exist amongst stakeholders.

You can add an extra layer of understanding to this stakeholder mapping by creating a stakeholder trust map. When you have visualised the relationships that exist between you and your stakeholders and amongst stakeholders themselves, you can mark each relationship with a +, - or ±, depending on whether it is a trusting relationship, a hostile relationship or something in between. If you don't know what kind of relationship exists, you can use a question mark to indicate this. This stakeholder trust map was used by Mingei partners as part of the co-creation process.

When a local history museum in the Netherlands decided to reach out to the various organisations representing the different migrant communities in the city, they found out these groups had already established a network and were in contact with each other. The museum then decided to not establish one-to-one relationships to these groups, but to invest in becoming part of and supporting the existing network.

✔ **Prioritise:** No project has infinite time or money available to cater to all stakeholders all the time. We have to make choices, but this isn't necessarily a bad thing. Experience shows that projects that are developed for a specific set of stakeholders do a better job than projects that start out with a blanket approach, trying to please everyone. In other words, prioritisation will make your project better for everyone. Rank your stakeholders based on relevance. Make sure to also identify any concerns or other issues that exist around this group. Will you be able to meet these concerns with the time and money you have available? The best way to prioritise stakeholders is to divide the team in smaller groups and for each group to make a top three to top five, depending on the scope of your project. Based on these shortlists, the team as a whole can decide who their key stakeholders are for this particular project.

✔ Reflection Point

Have you established a balanced representation, without over- or under-representing certain groups?

You have now identified your key stakeholders, but they are not aware you want to work with them yet. Establishing contact and trust are the next steps.

4.2 Establish contact and trust

Some stakeholders might be well known to your organisation, others might be a desired audience, for example, who you have not been in contact with yet. Either way, it is important to (re)establish contact if you need their input as part of your project or activity. Be clear about how much time you need from them and ensure that they have time and are willing to spend it helping you.

Sometimes you can ask your stakeholders this directly because you know them relatively well or it is possible to have one-to-one contact with them. Sometimes a stakeholder group might be a little more anonymous, for example, because they are part of an (online) community you want to cater for, but don't know directly. In this case you will need to do some research into this stakeholder group and base the further development of your research on an educated guess with regards to their preferences. This should not be a reason to abandon this stakeholder group or to think they are not interested.

If you are not familiar with a certain community, it can help to establish contact with a 'bridge person'. This is somebody who is familiar with the community, because they are a member of it, or have experience working closely with them. This person can form a bridge between you and the community. They can advise you with regards to your communication and research approach and can help you establish contact. A bridge person is not the same as a representative. Their role should be to help you establish contact with (a wide variety of) members of your stakeholder group, not to speak on their behalf. No matter how well their intentions, a bridge person will always bring their own assumptions, expectations and agenda to the table, which means they will not be able to provide you with the rich content a representative of the group could share with you. If you want to improve your product, project or services for a group of stakeholders, it is important to understand the variety of needs and expectations that live within the group. Always aim to be as inclusive as possible.

Appendix one sets out the top three stakeholders identified by the Mingei project heritage partners after completing the stakeholder mapping process. Take a look!

5. Co-creation

> Co-creation is a value-based, inclusive approach that focuses on bringing together different societal actors around matters of shared concern. It's an interdisciplinary process that emphasises the complex web of relations surrounding any issue, ensuring fuller understanding of challenges related to ownership and agency for subsequent activities or actions.
> Waag Co-Creation Navigator

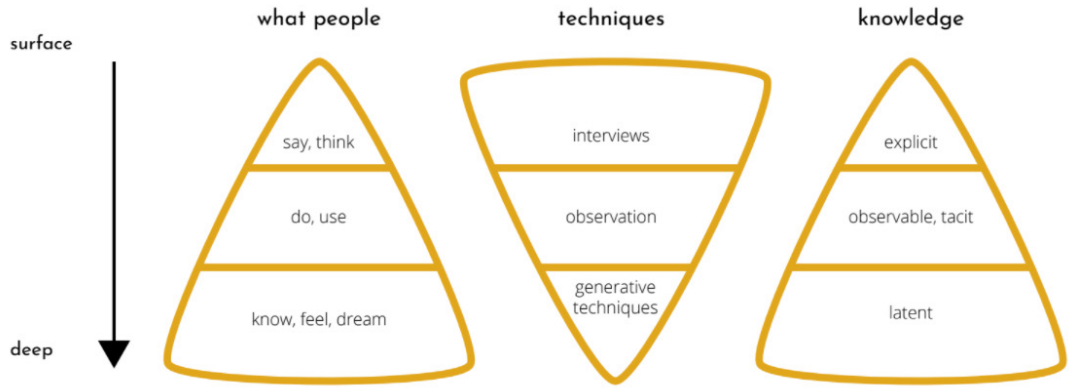
5.1 Introduction

In Mingei, we have used stakeholder mapping, TBI cycles and the Generic Learning Outcomes in parallel with co-creation to help create the conditions for the most possible impact for stakeholders. Co-creation is not a one-time intervention nor is it a consultation. Outcomes can surprise you and lead to innovation but that also means that there must also be room for uncertainty. Co-creation is thus an inclusive process that requires clear communication, supervision and time. To use co-creation effectively and efficiently an organisation or an individual must facilitate this bottom-up process in a context where there is some freedom for the project (or some details within it) to change course, based on the outcomes of the process.

5.2 About co-creation

Co-creation is a design method in which the people who are most likely to use the products and other people with specific relevant knowledge and experience are involved in a design process. In co-creation, creative and inspiring work forms are used to arrive at new, innovative insights. The introduction of a co-creative approach ensures the relevance of what you are developing or designing, agency and ownership among the people with whom you design, and a sustainable implementation of the process. This is because co-creation starts with the idea that everyone has knowledge and experience, especially about their own lives. This diversity of knowledge is valuable; participants build a relationship, and ideas and shared values arise in the dialogue with each other.

Co-creation is what we call a 'generative technique' when it comes to gathering information and knowledge. The way we approach people will influence the type of information we can collect, as we show in the diagram below.



Different levels of knowledge are accessed by different methods
(Sleeswijk Visser et al., 2005)

Co-creation is the most elaborate participative design practice as it goes beyond doing interviews and observing people. It uses active, hands-on, social activities and methods that help trigger latent knowledge, knowledge that is not on the surface or easily accessible, by creatively stimulating different parts of the human brain. We refer extensively to the Waag Co-Creation Navigator, an online resource developed for anyone wishing to use co-creation for innovation in their activities. The Navigator shares step-by-step guides to all of the tools and tricks referenced below.

5.3 Leading and participating in co-creation

To guide co-creation, you must understand the process well and also have enough tools and methods at your disposal to set up the process. As a process facilitator of co-creation, you must be comfortable with uncertainties, have some talent for improvisation and develop some specific social skills, or mindsets.

Co-creation is based on seven mindsets. In no particular order, these are:

- ✔ **Optimism** - see the possibilities, believe in a solution, be constructive, encourage others to take a positive view
- ✔ **Hands-on** - make things tangible, create while doing, be practical and pragmatic, improve something that exists (prototype)
- ✔ **Experimental** - both success and failure lead to insights, test hypotheses, allow yourself to be surprise, try something new
- ✔ **Critical** - question the ordinary (ask why?), introduce other expertise into your process, consider the bigger (societal) picture, find a common language

- ✔ **Sensitive** - step into someone else's world, get to know people and show empathy, allow yourself to be influenced, challenge your own assumptions
- ✔ **Fearless** - take a leap of faith, be open to criticism, trust your intuition, allow for uncertainty
- ✔ **Flexible** - adapt to new contexts, allow others to change the direction, go where the stories are, alternate between in-depth and superficial

These mindsets support an open, constructive and responsive process - the ideal conditions for co-creation. These mindsets, relevant for both the facilitators and the participants of co-creation sessions, are regularly overlooked because they are less tangible, interpersonal skills that are often used unknowingly. Being aware of the mindset you are approaching a situation with also helps you make use of that mindset and perhaps play around with or adapt it. For example, with a naturally optimistic mindset you might push yourself towards a more critical perspective to look at a situation from a different perspective and to generate new ideas.

✔ Guideline

Determine at an early stage who (person or organisation) is going to be the 'owner' of the concepts that are being developed and therefore responsible for dissemination and implementation.

5.4 The how-to guide - in brief

There are five stages to co-creation. We set these out below and later share more tips on how to structure your co-creation workshops for different audiences.

- ✔ **Foundation** - when you agree on the 'design question', convene a balanced team, and agree common perspectives on what is needed in the project.
- ✔ **Context** - this is when you sensitise yourself by stepping into and being open to the world of the subject, its stakeholders and context(s). It could include, but is not limited to, desk research, exploratory interviews, work sessions with specific people or groups, excursions and mapping of the context. You could, for example, undertake a 'photo safari' where you spend time shadowing a person or a group (with consent) to make observations.
- ✔ **Community** - without people, there is no co-creation. Each co-creative process will require the involvement of various stakeholders that represent a variety of expertise on a specific topic. You need to bring them together into your co-creation community and onboard them into the project. Mix different stakeholders in sessions so they will build a relationship between them, not only through you.
- ✔ **Workspace** - the workspace covers more ground than the other stages as it covers all the work you could do in cooperation with a community. When all the bases above have been covered you can start getting hands-on.

Allow for plenty of face-to-face interaction; learning from each other and, above all, creating, exploring and developing things together. You'll conduct a number of engaging, fun and memorable workshops including warm-ups, brainstorming and ideation exercises. Make sure to include creative making or prototyping activities as in the process of making something together a different conversation is triggered than would happen when just using words.

- ✔ **Wrap-up** - each process has to finish at some point. There will be much to reflect on, but also a lot to look forward to. Part of the co-creative process is that you allow room for uncertainty; the outcome might not be what you would have expected. Evaluating this process will help you pay attention to these new insights and at the same time reflect on your assumptions and ambitions. You also want to look ahead. How would you like to implement or scale-up your results? What is needed to make this happen?

This working structure for co-creation allows room for flexibility and is adaptable to individual specifications and contexts. It has been presented as a linear process, but needs to be considered a guideline, that allows for reflection, iteration and revisiting previous stages.

Mingei example

In Mingei craft/pilot partners, technology partners, research and design partners and external experts worked together in co-creation, to capture and share knowledge and skills for crafts and to develop new (technological) solutions for the transmission of crafts. To achieve this, several work-sessions with (a combination of) these different partners and experts were organised over the course of the project.

Each pilot partner representing one of three crafts (silk weaving, glass-blowing and mastic harvesting) organised their own co-creation process and worked together with the tech partners. The tech partners were asked to take into account the needs and requirements that follow from these co-creation sessions. Each pilot partner would eventually also host the (technical) interventions or solutions that were developed in the Mingei project in a pilot.

Unfortunately, due to the Covid-19 pandemic, not all of these workshops could be realised and the move to online co-creation was made more difficult as museums closed down and staff priorities changed. Nonetheless, the co-creation process that was possible helped to unearth some insights from the heritage partners that technical partners had not previously thought of, including, for example, the use of sound to guide users on correct manoeuvres in the glass-blowing pilot installation.

5.5. Co-creation in practice - the workspace

As noted above, while it's important that you build a strong foundation, you'll spend a lot of time actually doing the co-creation process with your community - the workspace. Based on the Mingei experience, you'll schedule a number of co-creation workshops.

In advance - preparation

- ✔ **Convene** your stakeholders at a convenient time for anywhere between 2 - 4 hours.
- ✔ **Invite** somewhere between 5 - 15 people. Quality is more important than quantity in co-creation. Make sure that the people you invite are willing, proactive, and have relevant knowledge and experience to share.
- ✔ **Host** the co-creation session somewhere that is relevant to or inspires discussion about the project at hand. In Mingei, for example, co-creation has been hosted once in a museum exhibition space.
- ✔ **Organise** a room or space with plenty of light, large tables and space to move around.
- ✔ **Identify** the workshop lead and co-facilitator, who is there for support and note-taking.

Introduction and warm-up

- ✔ **Share** an introduction to the co-creation task and the project or activity you are thinking about.
- ✔ **Introduce** the different stakeholders involved, allowing both experts and project partners to get used to one another. You can opt for a warm-up activity after that, like 'Portrait Drawing' or '4 Quadrants'.

Co-creation exercises

Co-creation sessions will vary according to your audience. We divide up some co-creation methods according to different audience groups we encounter in Mingei - museum and tech professionals, crafts communities, and the public audience. Different clusters of these communities can be brought together in your co-creation workshops and multiple methods can be delivered in one workshop. It is valuable to plan different types of exercises for your stakeholders, which might mean that you need to plan more than one workshop. An outline of the Mingei co-creation workshop approach is shared below.

- ✔ Stakeholders: museum professionals and tech partners
    - Kick-off brainstorming
    - Prototyping exercises

✔ Crafts communities, museum professionals and tech partners

- Kick-off brainstorming
- Map the space in which they are operating (e.g. the museum context)
- Meeting of minds (meeting those who do not share your expertise) and brainstorming
- Concept development (idea, audience, goal/intention, stakeholders, scope, technical requirements)

✔ Public audience (non-expert group, e.g. tourists, pupils, families)

- Kick-off brainstorming
- Inspiration session - present a variety of interventions, technologies, prototypes to inspire the participants, and help them get ideas to implement in their own 'solutions'.
- Create a board game based on exploring the craft; groups then play each other's board games.

✔ All stakeholders, feedbacking back on co-creation-designed prototypes

- Test and play with prototypes or interventions developed.
- Discussion rounds.
- Iteration dice, where each side of the dice has a different image referring to different contexts.
- Brainstorming improvements.

✔ Tip

Collect useful comments and notes that are not directly related to the discussion or activity at hand in a 'parking lot' piece of paper or online document.

5.6 More resources

For more guidance and resources on co-creation, including instructions relating to the co-creation methods listed above, check out the Co-Creation Navigator designed by Waag: https://ccn.waag.org/.

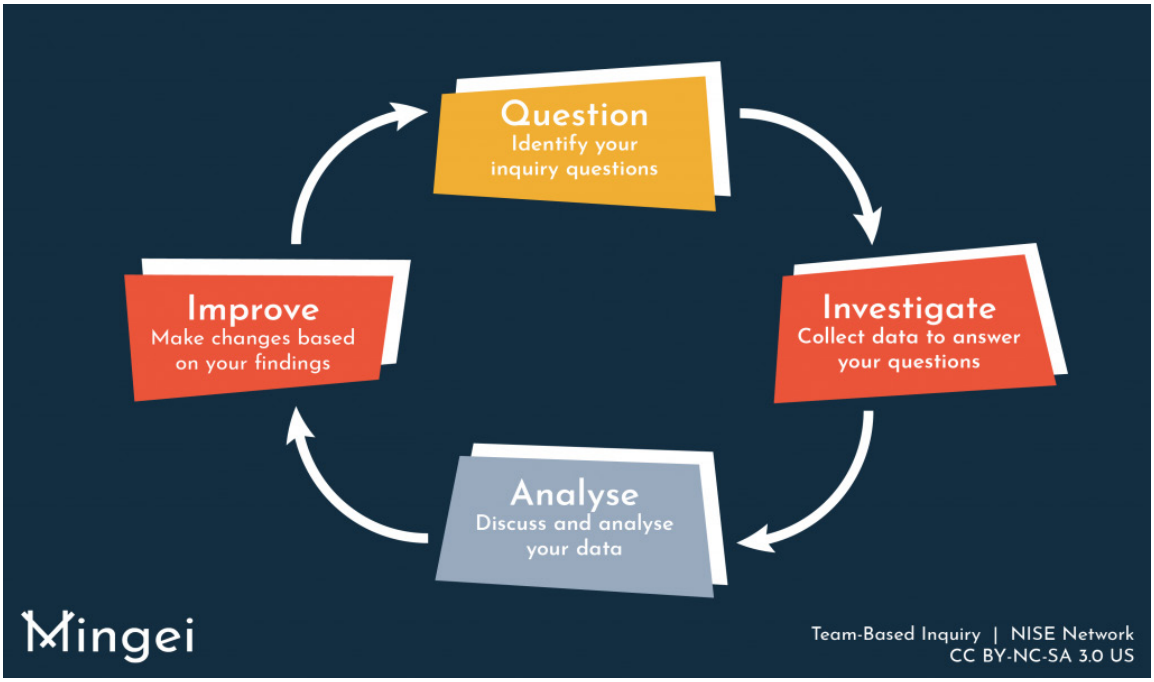
6. Using Team Based Inquiry to measure and improve impact

The next tool in your toolbox to improve your impact should be the Team Based Inquiry (TBI) cycle. In the case of Mingei, TBI is used alongside, and complements, the project's co-creation approach.

6.1 Introduction

Team Based Inquiry is an iterative evaluation method developed by the Nanoscience Informal Science Education Network (NISE Net, n.d. A) to help education professionals reflect on their educational programmes, collect data and make changes. Because TBI is developed for practitioners in an informal learning context and is designed to be easy to use, scalable and efficient, it is a very useful tool for heritage professionals. The iterative nature of TBI, as well as the focus on teamwork, suit the concepts of proactive partnership working and digital heritage projects as processes. TBI is scalable and allows teams to start off small and familiarise themselves with the approach, before potentially delving into bigger questions or more complex studies.

As a method for evaluation TBI makes use of a cycle of enquiry. This cycle of enquiry consists of four stages, which can be repeated as often as necessary. The four stages are: **Question**, **Investigate**, **Reflect** and **Improve**. The strength of TBI lies in the fact that it not only evaluates an existing situation, but aims to improve that situation, followed by another cycle of inquiry to analyse the impact of these improvements. It is therefore a suitable evaluation tool for iterative processes that leave room for improvements and changes during development. In this guide we will focus on the use of TBI as a way to improve and evaluate the impact of a digital heritage project throughout its process. Partners can define their own bespoke questions.



6.2 Define the boundaries of your research

TBI is designed to help you evaluate and improve your product, process or service. To keep the TBI process manageable, it is important to decide on a focus. For example, the Mingei team has decided as part of its TBI inquiries to focus on potential impact being produced in the realms of stakeholder relations and skills development. This focus also helps you identify your key stakeholders.

One key question you should ask as a team is: For whom do we want to improve things? Most heritage organisations intend to cater to a wide variety of audiences and stakeholders, but what works for one group, is not necessarily the best solution for another group. Because TBI is meant to be a fast, focused and small-scale method, it is important to have a clear understanding of the stakeholders that are most important to you for this particular project. Once you know who your key stakeholders are and you have established contact and trust, it is time to start the first TBI cycle of enquiry with everyone on board.

6.3 Organise your team

Moving through the TBI stages is a team effort. Some stages could be carried out by a smaller number of people, for other stages all team members should be involved. The team can consist of only heritage professionals, but if TBI is used as part of a digital technology project, it is highly advisable to involve technology partners as often as possible.

6.4 Start the TBI cycle

If you are new to TBI, starting your first cycle of inquiry might feel a bit intimidating. This is ok, you are all learning together as a team and no one should be expected to have all the answers. The TBI cycle is divided into four steps for a reason. Don't try to have a big picture overview of the whole cycle. Instead, focus on the step you are working on at that moment. Which means your team's focus should first be on developing the right question.

6.4.1 Question

It is important to remember that your TBI question is one that your team wants to answer, not a question you will ask your stakeholders. Another way to look at it, is to ask yourself: What piece of information will really help us improve (the impact of) our project? You should then be able to create a question this piece of information should be the answer to. NISE Net describes a good question as having the following three qualities.

1. **You don't know the answer to this question.**
   It seems obvious, but especially larger institutions sometimes have more information, for example about their stakeholders, than they know. So even if your department does not have any information that could answer this question, make sure to check with other departments as well. This is where an inter-departmental TBI team can make a difference. Additionally, an answer to your question might be available online, or through other easily accessible resources without being the focus of a TBI cycle.

2. **Your question focuses on useful and actionable information.**
   This means you can actually do something with the answer to your question. For example, 'How many school groups make use of our services?' does not provide an actionable answer. Neither does: 'Which school groups do we fail to reach?' However, asking: 'What are the main reasons for those school groups to not engage with our schools offer?' will probably provide actionable information. When you know the barriers to engagement for those school groups, you can start working towards removing them.

   When you develop a TBI question that will result in actionable information, but the potential resulting action would need to come from another team, or from your technical partner, make sure to involve them in this phase. Doing research into the ways in which the user interface of your new on-gallery kiosk could be improved, only to find out there is no money, time or intention to make those changes, is a waste of everyone's time. Therefore, 'actionable' does not only mean: Could we act upon the outcomes of this study? But also: Will the people responsible be able to act upon these outcomes? Try to involve your technical partners in this phase of the cycle of inquiry. But if this is not possible, please make sure to check your question with them, before moving to the next stage.
3. **The question can realistically be investigated.**
   Take into consideration the time and money available to you. It is no use putting time and effort into pursuing a question you will not get to answer if you simply don't have the resources available to carry out the necessary study. It is important to be realistic about the things we can do with the resources we have. If you find it hard to decide at this point if a question is manageable, start small. You will feel less pressure using a new method if you're focussing on a small question first.

A team brainstorm can be a great way to get to a long list of potential questions, which you can then together score against the three requirements listed above. NISE Net also provides a really useful Question Worksheet (word document) that can help you score your questions. There are many different ways to brainstorm for questions, but it is advisable to make the various questions you come up with visible. What we mean by this is that it is much easier to score and discuss questions when they are written down, instead of just shouted out.

Mingei example

- To what extent do the museum professionals understand how the digital applications work, feel comfortable using them and can explain their use to visitors and new colleagues?
- How can we improve our non-guided visitor's museum visit experience?
- Why are there so few visits to a specific part of the museum?

For each cycle you need only **one question** to get started, so scoring questions is important. Feel free to ask for clarification if you are not quite sure what a question means. In order to score them, it is important that all team members have a shared understanding of the meaning of each question. If necessary, you can rephrase a question or create a new one, inspired by what is already shared by others. Expect to spend about one hour on this phase.

6.4.2 Investigate

Once you know which question you want to answer, it is time to start thinking about the methods you could use. If you are new to evaluation, the book Practical evaluation guide. Tools for museums and other informal education settings can be helpful (Diamond, J., Luke, J.J., and Uttal, D. H., [2009]). You can also take a look at the Europeana Impact Playbook Phase two.

When choosing your methods, you have to think about several things. First of all, the nature of your question will influence your choice. Based on your TBI question you can decide how much data you need to collect (at a minimum) in order to answer your question, as well as the kind of data you need. Do you need quantitative data (numbers, facts) or qualitative data (detailed explanations or personal views)? Secondly, the resources that are available to you play a part. Collecting and processing data always takes time, but some data is easier to collect and process than others. Finally, you need to take into account the stakeholders you will need to survey in terms of who they are and how you might reach them.

If you are new to evaluation, it might be good to first familiarise yourself with three types of evaluation that are often used: written feedback, interviews, and observations. Please see appendix one for more insights into these methods. To answer your TBI question, you can use one or a combination of methods. Responses from 15 to 20 individuals or groups might be enough for you to start seeing patterns and to have enough information to see where your project or programme can be improved. In this sense, TBI differs from more formal academic studies, which are likely to require many more participants.

Mingei example

In Mingei, our partners have completed at least two TBI cycles each, investing these in different ways, including:

- Observation sessions of the public interacting with the pilot installations
- Reviewing visitor feedback in the visitor's book
- Conducting short interviews with visitors
- Conducting focus groups with museum staff

6.4.3 Reflect

The reflection phase of the TBI cycle can take different forms, depending on the kind of data you collected. It should, however always consist of the following three steps:

1. Organising

By organising your data, you structure it in a way that can easily be processed and analysed. Quantitative data can be easily structured using a spreadsheet, for example. Qualitative data needs more work. You can decide to code it, or you can print out all the answers, so you can physically group them and discuss similarities or differences with the team. Organising means: making the data manageable, allowing you to see patterns or surprising behaviour or opinions.

2. Analysing

Quantitative data can be analysed in the form of numbers or charts. Be aware though that percentages can be misleading when you use small datasets. For example, if you interviewed ten people and your analysis shows that 10% of the interviewees were of a certain opinion, this means actually only one person gave this opinion. 10% sound like a lot, but the opinion of only one person shouldn't be leading us to change things, unless we have evidence (from other studies, experience or implied responses from others) that they represent a larger group of people.

Most of the time, analysis will consist of seeing patterns and comparing responses that are part of your qualitative data. You can sort the data into themes, or code the data based on topics you identify while reading through all the answers.

3. Interpreting

After analysing your data, noting patterns and comparing answers or different groups of participants, it is time to interpret the data: What does it mean with regards to our TBI question? This interpretation can be done by one or a few members of the team, but could also be conducted as part of a group exercise. NISE Net (n.d. A) has developed a four-step interpretation method, called a data-reflection discussion:

Step 1: Describe and clarify. This will help to (re-)establish a common understanding of the study. Make sure all team members are reminded of the original TBI question and are aware of the data collection method and context.

Step 2: Observe and discuss. Allow all team members to familiarise themselves with the data. What answers of facts stand out for them in relation to the TBI question? When they start talking about themes, this is ok, but try to bring the conversation back to specific responses, behaviours or other data.

Step 3: Immerse and notice. Start listing all the patterns team members notice. Where do you see similarities or people performing the same actions? Try to list all the patterns you can find as a team. Different team members might have a different focus here, based on their own experience or role within the organisation. A more diverse team will likely result in richer content at this stage.

Step 4: Categorise and explain. As a team, or individually, go through the data again and count which patterns are most common. When looking at the data closely, does it really reflect the patterns you initially saw? Are the patterns backed by clear data? You can start thinking about the meaning behind these patterns.

Why does this pattern occur and what does that mean with regards to your TBI question?

These phases can be more or less straight forward, depending on the data you have collected. It might be easier to see patterns (and to have the data clearly back them up) when analysing questionnaire data, than when you are working with visitor comment cards, for example. The more control you had over the kind of data you collected, the easier that data is to analyse, but the less likely it will be that you will encounter surprise findings that change the way you think about (the potential of) your project. Either way, be sure to always go back to the data and check if the patterns you think are there are really backed up by the data you collected.

6.4.4 Improve

You have defined your question, collected, analysed and interpreted your data. Now it is time to act on your findings. Like the other stages, the Improve stage is most successful when the whole team engages in it. NISE Net (n.d. A) suggests hosting an improvement discussion to identify and prioritise the improvements that can be made together with the whole team. Keep in mind that not all findings will or can result in an improvement. For each finding the team should try to answer the following questions:

- What are the consequences of this finding, when we look at our project?
- What actions can we take to improve our project, based on this finding?

After you have answered these questions for every finding, it is time to prioritise. It is unlikely you will be able to undertake all actions you have identified. By prioritising, you can try to have as big a positive impact on the project as possible within the time you have available. Make sure to look back at the data at this point, so you know the data supports the changes you are about to make.

6.4.4.1 Reflect on your team's participation and improve your next TBI cycle

You might need to work closely together with your technical partners, or other colleagues in this last 'improve' step of the TBI cycle. That is why it is important to engage them with your TBI cycle from the start. It is a much more satisfying process when you know the team will be able to act upon the outcomes of your research. If you notice it is hard to engage colleagues in improving your project, reflect on the whole TBI process and ask yourself how you can prevent this from happening again. Did you ask a question that was not sufficiently urgent for all parties involved? Did you not engage colleagues in the data analysis? Or can you look for improvements that are easier to implement, that will help you show the value of TBI as you prepare for your next cycle of enquiry? The strength of TBI is that it is a fairly quick and dirty method that doesn't require too many resources, and that allows you to adjust and try again, learning from every step of the process.

6.5 Tips and tricks for TBI

- ➜ Make sure the whole team is on board at the beginning of the TBI cycle. If you notice a team member is particularly sceptical about the process, but they have valuable skills to contribute, have an honest conversation with them and check if they might want to ask a colleague with similar skills to take their place in the TBI team.
- ➜ Make sure that the whole team feels engaged throughout the cycle. There will probably be one person leading the process, but make sure all the decisions and steps you take are a team effort. Communication is key.
- ➜ Document your work. Keep notes of every stage so you can learn and look back over time to see how things happened or what decisions were made exactly. NISE Net offers a useful TBI summary form (word document) on their website.
- ➜ Keep it small, especially if you are new to evaluations. It is much more useful to take small, focused steps than to try to tackle a huge question and be overwhelmed by it.
- ➜ Confidence grows over time and TBI is something we learn by doing.
- ➜ TBI is not a usability study. It is not intended to test core functions of your project, but to improve it step by step.
- ➜ There are many different ways to conduct research and it is important to stay open to trying out different methods as you move through various TBI cycles. Think of the different methods as tools in your toolbox. As the number of tools you can use grows, so does the number of questions you can ask. Don't be afraid to try out new methods.
- ➜ Keep an open mind even when you have tried several TBI cycles. Be open minded when collecting and analysing your data (this can be challenging when you are reviewing your own work) and be creative in the Improvement phase. Small changes can sometimes have a huge impact.

Mingei example

What improvements have we implemented as a result of TBI cycles? Just as an example:

- Improved security for technical devices in heritage partner museums
- New ways of increasing the capacity of museum workers with regards to digital applications being used in the museum, such as seminars and manuals
- Technical improvements made to the pilot exhibitions
- Creation of new information points (QR codes) for museum visitors
- Changing labels for objects in the museum display
- Setting new goals for visitor reach
- Improving online information for potential volunteers
- Increasing collaborations with tourism providers

7. Understanding and planning for impact: the Generic Learning Outcomes (GLO)

7.1 An introduction to Generic Learning Outcomes

The Generic Learning Outcomes (GLOs) were developed for the UK's Museum, Libraries and Archives Council (MLA) as part of the Learning Impact Research Project in 2001-2004 and they are now managed by Arts Council England (ACE). Since then, they have been used across the UK and beyond, by various museums and other cultural institutions to assess (the impact of) informal learning.

Generic Learning Outcomes were developed to help museums think about, develop and measure (the impact of) learning outcomes in informal cultural learning environments. GLOs are based on the idea that learning is a verb (rather than a noun) and "[t]he understanding of learning as a series of complex and lifelong processes" (Hooper-Greenhill, E., 2004). The GLOs divide informal learning into five separate types of learning outcomes:

1. Knowledge and understanding
2. Skills
3. Attitudes and values
4. Enjoyment, inspiration and creativity
5. Activity, behaviour, progression.

On their website, ACE provides examples for all five GLOs. They also offer a set of tools, such as a GLO checklist and examples and practice sheets for scoring qualitative data (Arts Council England, n.d.).

GLOs can be used in at least three different ways. In Mingei we use them for planning, evaluation and improvement, and reporting and as in our TBI cycle.

Planning: When planning your project, GLOs can help you think about the learning impact you want your project to have. Do you want people to remember certain information? Describe what information or knowledge is most important. This can take the shape of a message document. A message document identifies one key message, something all users of the tool or service should know or take with them after using it, followed by a series of lower level messages. By focusing on one key message, you force yourself to answer the question: What is it really about? You can then work to make sure all your content supports this key message. The same goes for certain skills, attitudes, inspiration or behaviour you want visitors or users to gain. By making it explicit and planning for it, rather than assuming it as a given, you enhance the chances of reaching the learning goals you set. It should not be your goal to cover all GLOs in all your programmes and products. Rather, they are a tool that help you make conscious decisions with regards to the type of learning experience you want to create.

Evaluation and improvement: We mentioned before that one way of analysing qualitative data is to code it. GLOs are a great coding tool. Coding against GLOs means taking every bit of information from a piece of qualitative data and asking yourself which of the

GLOs they refer to. For example, if a visitor leaves an online review saying: "We really enjoyed our visit to your museum. Our daughter still talks about the different dinosaurs she saw and has remembered so many fun facts about them. After we came home she made a drawing of a Triceratops and took it to school for show and tell," you can code this as follows: "We really enjoyed our visit" – Enjoyment, inspiration and creativity. "Our daughter still talks about the different dinosaurs she saw" - Activity, behaviour, progression. "and has remembered so many fun facts about them" - Knowledge and understanding. "After we came home she made a drawing of a Triceratops" - Enjoyment, inspiration and creativity. "and took it to school for show and tell" - Activity, behaviour, progression. Upon first reading the review, you might be inclined to only focus on the fact that the family had a good time and the daughter learned new facts, but when coding the entire text, it becomes clear that the visit also inspired creativity (making a drawing) and certain behaviour (the daughter talking about dinosaurs and her drawing, at home and in front of her classmates). Using GLOs can help you better analyse the breadth of the impact your project is having beyond the obvious goals you might have set out to achieve.

Reporting: Using the GLO framework will help you structure your reporting and communication towards funders, stakeholders and colleagues. It helps you articulate the impact of your project and allows you to frame learning as an ongoing activity with many facets that different people can engage in in different ways.

7.2 Using Generic Learning Outcomes as part of Team Based Inquiry

Team-Based Inquiry is an evaluation method that allows teams to analyse and improve the impact of their project, using short and focused cycles of inquiry. Generic Learning Outcomes allow cultural organisations to plan, evaluate and report on the learning impact of their projects, programmes or products. So, how do the two fit together? When your TBI question focuses on experience or learning in any way, the GLO framework can help you formulate your question. More importantly, in the Reflection phase, the GLO framework can help you code, analyse and discuss your data. Qualitative data needs to be coded and interpreted, and GLOs will help you do this in a coherent way. In addition, when you notice your team referring to 'learning' in a more generalised way, GLOs make it possible to drill down and better understand, as a team, what is exactly meant by that phrase, especially in non-formal learning settings. The more concrete you can be in understanding and describing your project, the more clearly you can phrase your TBI question. Clearly formulated questions allow for a more focused and structured evaluation, which will result in more actionable outcomes.

In short, not all TBI questions benefit from using the GLO framework, but when talking about experience and learning, GLOs can help you frame your question and findings more clearly, creating a shared language and understanding amongst your team.

8. Thank you for reading!

We hope that this guide has been helpful to you and will set you further on your path towards having the most possible impact through your activities. We've worked with the participating heritage and technical partners for many months and have been delighted to see how Mingei has created and continues to create different types of organisational impact for each partner.

We've learned about the challenges of engaging stakeholders when museums are closed, and learned new skills that have helped us work and collaborate remotely. We know that we need to keep bridging the gap between technical partners and heritage organisations, and to work even more to create a shared language and embed the co-creation methods that can connect them. The TBI cycles have provided spaces for the heritage partners, as diverse as they are, to share knowledge and good practice between the heritage partners, and created time and opportunity for reflection and organisational development. The GLO framework has helped us think in more depth about the type of learning Mingei is having as a digital capacity building project, and helps us to see the potential for informal learning, learning by doing, and the triggering of latent knowledge (through co-creation), to be as transformational as formal capacity building.

We'd like to thank all of our partners on the Mingei project for their enthusiasm and partnership. We hope that the methods and tools create for you as much impact as it has them!

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10. Appendix one - Mingei project stakeholder mapping

Introduction

The Mingei consortium partners have identified a list of 93 stakeholders and have scored them regarding their potential impact, influence and commitment to the project. The relevance of these stakeholders is not the same for all activities. Some stakeholders are important for dissemination and communication activities. Others are important sources of knowledge and experience that need to be involved in content development. A third group could be described as 'potential future users' of the Mingei tools.

These different roles stakeholders (can) have are important to take into consideration when we try to measure the Mingei project's impact. The impact analysis will focus on three different aspects and different stakeholders are involved in different ways at different times:

Impact assessment focus	How stakeholders are engaged
Relationships with stakeholders: building new networks, working with local craft communities.	Stakeholders for this piece of research are primarily sources of knowledge and experience, they might also be future users of Mingei products.
Skills development: using new tools, identifying and exploring new creative opportunities and craft areas.	Stakeholders are primarily potential future users, they might also be sources of knowledge and experience.
Strategising: developing a mid-term and long-term strategy to ensure future impact and encourage legacy.	Stakeholders are parties who are relevant for dissemination and communication activities.

All three heritage partners identified their top three stakeholders they deem important for their organisation in relation to Mingei.

Conservatoire National des Arts et Métiers (CNAM)

1. **Visitors and tourists (children and family)**

   The visitors and tourists of the Musée des arts et métiers are the most important stakeholder for the Glass Pilot. The museum is part of a research and teaching institution (Cnam) and is mostly an educational museum which missions are the conservation and diffusion of the scientific and technological culture. The museum receives about 250 000 visitors each year with a large majority of school visitors, children and family. This group of stakeholders could be seen as future users of the Mingei tool.

2. Craft enthusiasts (Louis Luc Associations for the History of Choisy-le-Roi and Institut National des Métiers d'Art)

The Louis Luc Associations for the History of Choisy-le-Roi helps to better understand the rich industrial heritage of the Glass factory of Choisy-le-Roi in editing a "Journal about glass history" in collaboration with previous glassmaker of the glass factory. Ms. Danielle Velde, the historian who worked on Georges Bontemps' biography, is a member of this association and with the other members will provide project partners with important contextual knowledge. The Institut National des Métiers d'Art (INMA) is a French state institution which promote and support craft knowledge and activities. In January 2019, INMA filed the request to inscribe glass technical gesture in the Unesco intangible heritage list. Flore Leclercq who wrote this request and conduct an inquiry about glass craft in France will provide project partners about knowledge and feedback about the glass pilot.

3. Craft educators and students (Cerfav)

The Cerfav (European Research and Educational Center for Glass Craft) was founded in 1991 at Vannes-le-Châtel in the east of France. Cerfav is the leading Glass School in France and its four main objectives are Innovation and Research, Creation, Education and Development of glass craft. Working closely with its glass master, this stakeholder will be first a source of knowledge and experiment. As an educational site, it will also be a partner to experiment with Mingei tools as a source of knowledge transmission.

Pireus Bank Group Cultural Foundation (PIOP)

1. Chios Gum Mastic Growers Association

The Chios Gum Mastic Growers Association is the most important stakeholder for the mastic pilot. The Association was founded in 1938 and includes 21 mastic producer cooperatives from the villages of southern Chios. The Association is the only direct recipient of the annual mastiha production, as well as the organisation that protects the interests of producers. For UNESCO, the Association is considered to be the body of "knowledge of traditional mastic cultivation in Chios", as it represents all the mastic producers, the people who hold the tradition alive. It is also the first producer and marketer of mastic products. As such, the Chios Gum Mastic Growers Association can primarily be identified as a stakeholder that is a source of knowledge and experience.

2. Mr. Manolis Zafeiris

Mr. Zafeiris is the most important cultivator of mastic on Chios. He will help the consortium to understand the cultivation of mastic and provide project partners with us all the necessary information about trees and the product. Mr. Zafeiris is primarily a source of knowledge and experience.

3. Masticulture

Masticulture is a private enterprise based in the village of Mesta, Chios. It is the first and only tourist business specialising in ecotourism on the island. It covers a wide range of activities that involve the environment (natural and man-made), people, businesses and associations, with the tradition and culture of Chios. Masticulture organises ecotourism travel packages that combine hospitality and alternative outdoor activities

with everything that composes the culture of the region: manners and customs, folk arts, agricultural and agricultural production, architecture, etc. It will give us valuable information about the future commercial use of the project's product. Masticulture will primarily represent potential future users of the Mingei product.

Haus der Seidenkultur (HdS)

1. The Association of Friends of the Haus de Seidenkultur

This Association consists of people who are near the museum. Some of them are craft-speople responsible for demonstrating the various processes related to the design and production of jacquard silks. Others are craft enthusiasts, holding a wealth of knowledge about the history of silk weaving in Krefeld, as well as the various processes. As such this group of stakeholders can primarily be seen as sources of knowledge and experience, although they might also become users of the Mingei tools.

2. Craft enthusiasts

Various online lists of craft communities have been identified. The next step will be to establish contact with a small number of 'bridge persons' that could help the team to connect with the community. This community can primarily be described as potential future users of the Mingei tools.

3. Creative Industries

The Haus der Seidenkultur is already in contact with a local weaving technology museum, TextilTechnikum, not far from Krefeld. In addition, the Jacquard by Google project could be an interesting stakeholder, provided they are interested in this role and supporting the Mingei project. Lastly, an online search has resulted in the identification of various potential stakeholders that are part of the creative industries. Further research and outreach will be carried out in this field. The creative industries could be seen as potential users of the Mingei tools.

11. Appendix two - research methods - written feedback, interviews and observation

Written feedback

Questionnaires are probably the best-known form of written feedback. They can be conducted on paper, or digitally, which means they can be suitable for getting feedback from people visiting your heritage site, or others who might not (yet) visit. Questionnaires allow you to ask specific open or closed questions. Open questions are questions to which a written answer is necessary. Closed questions allow visitors to choose from a set of given answers, such as multiple-choice questions, scales or questions that can have a yes/no answer. Questionnaires are used often and might seem easy to make. They also don't require much person-to-person contact, which might make them a preferred research method when you want to outsource data collection, for example by asking front of house staff to hand out questionnaires. Training someone to hand out a questionnaire takes less time than training them to follow an interview protocol.

Although questionnaires seem easy to make, creating a good questionnaire takes practice. First, it is important to formulate the right questions. Testing a new questionnaire is always recommended and you should expect to have to make some changes based on your test run.

Some of the things to keep in mind when developing a questionnaire:

- ✔ **Don't make it too long.** Don't make respondents answer more questions than are absolutely necessary to answer your TBI question. It also helps to give people an indication of how long it will take them to fill out the questionnaire, to help manage their expectations and give them the opportunity to decline if they don't have enough time. A half filled out questionnaire is of no use, so you lose nothing by letting them decline to participate, instead of walking out halfway because they ran out of time.
- ✔ **Ask yourself:** Are these open questions really open? We often think we write an open question, when in fact it could be answered with a yes or no.
- ✔ **Ask yourself:** Do I really need an open question to get an answer? People often don't like answering open questions and the likelihood of participants skipping an open question is much higher than with closed questions. You might also have to deal with deciphering hard to read handwriting, and processing and analysing open questions takes more time. Use a closed question with a yes/no or other concrete answer if you can.
- ✔ **Use simple language.** One of the most common reasons for adapting your questionnaire after your test round is because people did not understand what you meant. Even seasoned evaluators encounter this. Always test your questionnaires.
- ✔ **When developing your questionnaire, think about how you will process and analyse the answers.** If you don't know how you can analyse the answers you will receive, it's no use asking the question.

- ✔ **Questionnaires allow you to gather a lot of information from many people.** Think about the amount of time it will take to process and analyse the data you collect.
- ✔ **Questionnaires make it possible to let people participate anonymously.** We often ask more personal details from people than we really need for our study. When designing your questionnaire, ask yourself: do I really need all these details to answer my TBI question? You might want to have the opportunity to contact people with follow-up questions, or to inform them about the outcome of your research, but it's worthwhile asking yourself if the questionnaire could be kept anonymous. This is also important for GDPR compliance.

Questionnaires might be the best-known method for collecting written feedback, it is not the only or even the easiest method. Another useful method is solicited written feedback. We use this term for more open or simpler forms of getting feedback. On site, these could be comment cards, where visitors are maybe asked to answer one rather general open question, or guest books. Many heritage organisations collect these forms of feedback, but they don't always use them as evaluation tools. Online you can think of Twitter or Facebook polls or the question options in Instagram stories as ways to collect solicited written feedback. Social media comments can also be seen as solicited written feedback when the post they respond to actively asks for people's responses.

The final form of written feedback we want to mention here is unsolicited written feedback. This type of feedback can often be found online, for example in the form of Facebook or Google reviews, comments on social media that were not explicitly requested or social media mentions. What is great about this type of written feedback is that it already exists and you do not have to actively ask for the data. You only have to collect, process and analyse it. The downside is that you do not control the content. However, when your TBI question is related to satisfaction, or engagement, these online resources can help you answer your question.

Interviews

Interviews require person-to-person interaction. Ideally both those people are in the same space, but you can also conduct interviews over the phone over via video conferencing, for example via Skype. The plus side to video conferencing is that you will be able to see a person's face when talking, which can help you interpret what they are saying. The down-side can be a faulty connection or other technical difficulties. For phone interviews, using a landline is always preferable, because it tends to provide a better-quality connection, with fewer risks of the connection dropping. However, many people don't have access to landlines anymore, so using a mobile phone connection might be your only option.

Interviews can help you answer more or less the same questions as questionnaires, but what they can really help with is better understanding people's feelings, motivation or opinions. You can ask more in-depth questions and follow up on things people say, which can help you to really drill down on a topic. For most people, speaking is easier than writing, so they are likely to share more, in depth information than they would on a written survey. Interviews are not anonymous, although you can of course anonymise the data before processing it.

Interviews are not just a casual conversation about a topic and conducting an interview well

requires some training. The most important element of a good interview is the preparation. Make sure you know exactly what you want to get out of the interview. It is good to create a list of basic questions you want to ask each participant, but feel free to add questions to follow up on something interesting a participant said, or to rephrase a question if you didn't get a clear answer the first time around. Secondly, it is important to make sure your participant feels comfortable. When meeting in person, offer them a comfortable seat and a drink. Make sure the space you are in does not feel too formal and is not too noisy. Make sure to be open and friendly, even if you might be a bit nervous yourself. Reassure them it is not a quiz, but you are genuinely interested in their opinions, thoughts and ideas. Give them some context for the interview. Why did you ask them to participate? What are you researching? And introduce the topic. Be careful not to lead their thinking into a certain direction though. If you start off by saying: "we want to know what people like about X," they will want to confirm they liked X too, even if maybe they didn't. Make it very clear to them that what you really need from them is to be open, honest and critical. The language you use and how you talk about the topic can help with this.

It is advisable to make an audio recording of your interview. You have to ask permission for this from your participant. While conducting the interview, make sure to take notes as well. If this means the conversation will fall silent for a bit while you write, don't worry. It will give your participant time to gather their thoughts. They might remember something they didn't think of straight away. Don't be afraid to ask them to repeat themselves or to explain what they meant. It is important to capture their answers correctly. The most important reason to take notes during the interview is that something can always go wrong with your recording. If something does go wrong, it is good to know you still have your notes and you didn't lose everything the person said.

Observation

When your TBI question relates to visitor behaviour, you can choose to observe visitors as they are visiting your heritage site or engaging with your digital tool. When planning an observation study, make sure to familiarise yourself with the surroundings in which the study will take place. Is it busy or quiet? What are potential observation stations from which you can easily see the behaviour you want to observe, without being intrusive? Your observation data will often consist of notes you took while observing. Video observations can be cumbersome to plan and set-up and would not be recommended in the context of TBI, where we tend to work with relatively small numbers of participants. Sometimes just taking some time out of your schedule to look at people's behaviour, while taking some notes will already help you answer (or develop) your question.

Sometimes, an observation sheet can facilitate your note-taking. For example, when you want to observe people's movement through a specific space, it can help to make a map of the space, marking and/or numbering all the elements that are present in the space. You can draw arrows indicating people's movement, add timings or other notes in an additional textbox. Test your observation sheet before carrying out the full study, so you know you can capture as much information as possible in the limited amount of time you have available for the observation. It is not common to actively ask people permission for observations. They might behave differently when asked if you can shadow them. However, it is important to notify people that observations are taking place, for example via a sign at the entrance. Also make it clear that people are free to not participate, by letting you know they don't

want to be observed.

Like with questionnaires, it can be helpful to think about how you will process your data before you start collecting it, but keep in mind unexpected patterns or behaviour might occur that you did not plan for. Sometimes you have to be creative and make adjustments as you go. If this happens make sure to make a note of the changes you made and try to be as consistent in your note taking as possible, to facilitate future analysis and interpretation.

Sometimes you might want to use an evaluation method or style that is a combination of an observation and an interview. During a guided visit, visitors are free to move and act as if you were not there, but they can also make comments and you can ask them questions about their actions, or inquire after their opinion on specific interactives, texts or displays. When you want to conduct a guided visit, make sure to ask permission beforehand and, as with observations, think about note-taking. Recording the conversation may not be possible in this case, so make sure to take ample notes while conducting the study.

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