DELIVERABLE 5.1

Feedback Forums

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Abstract	The Feedback Forum details the establishment and results of feedback tools used to evaluate partners' experience of the OSHub.Network project from October 2019 to June 2020.
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List of Acronyms

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ACRONYM	DEFINITION
GA	Grant Agreement
GER	Gender Equity Recommendation
CSA	Coordination and Support Action
DEI	Diversity, Equity and Inclusion
STEM	Science,Technology, Engineering and Mathematics
STEAM	Science,Technology, Engineering Art and Mathematics
HO2020	Horizon 2020
MORI	Market and Opinion Research International
OSHub	Open Science Hub
PISA	Programme for International Student Assessment
TCD	Trinity College Dublin
ULEI	University of Leiden
IH	Impact Hub
WP	Work Package

Executive Summary

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The OSHub.Network Feedback Forums (FF) is Deliverable 5.1 (D5.1) from the coordination and support action (CSA), OSHub.Network, grant agreement (GA) 824581.This report marks the initiation of WP5: Evaluation of the OSHub.Newtork project.

The Open Science Hub Network will be evaluated on 3 different levels. The first level will be the European network-wide level that consists of 9 partner institutions. Here we will evaluate the processes of communication and collaboration between the partners of the OSHub.Network. The second level is focused on the local OSHubs and their network of stakeholders. Here we will evaluate how each OSHub has been established and how they have developed relationships between the hub, partner institutions, schools and their community stakeholders. The third level will evaluate the individual OSHubs, investigating the student and participant experiences of each OSHub project. The feedback forums described in this report examine the first level of this project: the European OSHub.Network. By centering our evaluation approach on these 3 levels we aim to develop further evaluation tools to obtain an in-depth and holistic view of all work packages in the project.

The initiation of WP5: Evaluation began by the creation, distribution and analysis of Feedback Forums. These feedback forums will facilitate a mechanism for partners to express their experiences, concerns and needs, inform the overall project management of necessary future actions, and ensure the project is progressing as per the original schedule with best practice in mind.

The feedback forums will act as a periodic routine instrument for evaluating each partner's experience at set stages over the course of the OSHub.Network project. The feedback forums also facilitate dialogue between the consortium partners and function as a baseline study of each country's OSHub as detailed in Task 5.4. Details of how feedback forums were established and analyses will be included as part of the evaluation toolkit in Task 5.6. The periodic nature and reliability of these feedback forums function as a method to evaluate the ongoing process of OSHub.Network, and provide measurements of the effectiveness of all work packages as stated in Task 5.1. The forums also allow the consortium to adapt their processes, identifying the needs of partners and providing adequate training.

This report should be prefaced with the information that these feedback forums were established over the course of the COVID-19 lockdown. Therefore, the majority of the feedback given by partners is related to the effect of COVID-19 restrictions had on their experience and development of the OSHub.Network.

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1. Introduction

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1.1 Background of OSHub.Network

The Open Science Hub Network (OSHub.Network), and the associated network of community hubs – OSHubs, aim to inspire, empower and engage citizens – from school children to senior citizens – in STEAM (Science, Technology, Engineering, Arts and Mathematics) learning and research opportunities, grounded on collaboration with societal agents.

The OSHub.Network is developing a common methodological framework, that allows each OSHub to identify and analyse local needs, issues, opportunities and relevant actors, in order to address socio-economic, geographical, gender equity issues, and untapped growth potential. Inspired by the "Mission-Oriented Research & Innovation in the European Union" approach, developed by Mariana Mazzucato, OSHub.Network will define a set of Open Schooling Missions, aimed at addressing local relevant challenges linked to the UN's Sustainable Development Goals (United Nations General Assembly, 2015). These Open Schooling Missions will constitute the basis for the creation and development of open schooling projects, enabling real collaboration across communities. Through this approach with OSHub mediation, schools can be active agents for collaboration between civil society, enterprises, research institutes, and families.

Importantly, to ensure diversity, inclusion and sustainability, each OSHub location will be held accountable to a local management board consisting of representatives from local stakeholder groups across schools (teachers and students), families, research institutes and universities, enterprise, industry, media, local governments, civil society organizations and wider society. The board will be involved in all key processes and decisions regarding local OSHub programmes and initiatives.

By supporting local schools and communities with the tools and networks to tackle relevant challenges, OSHub.Network aims to create local impact while simultaneously promoting an active global citizenship attitude. All resources, products and solutions developed by OSHub.Network will be fully based on Open Standards to expand the reach and impact of the project. OSHub.Network will create an online platform to share OSHub expertise, resources, and best practices with all OSHubs, their partners and the communities they serve. All OSHub.Network resources will also be shared on existing large online educational repositories, and relevant national networks and repositories.

In the long run, we envision OSHubs as education brokers in their local communities, supporting local school networks to incorporate Open Schooling in their vision and organizational structure, leading to a sustainable high quality of education. In particular, OSHubs will facilitate the bridge between the needs and realities of schools and their local context and resources, as well as brokering and advocating for the implementation and maintenance of national/regional policies.

1.2   Purpose of Document

The purpose of the feedback forums is to facilitate dialogue and establish a feedback instrument for all partners involved in OSHub.Network. Through the establishment of these forums we hope to encourage shared learning across countries and to embolden best practice throughout the consortium. The feedback forums may act as self-informative reflection for each participant's experience and for the OSHub.Network project at large. This allows partners who contribute feedback on behalf of their institution and OSHub to influence the future direction of the project, ensuring the openness, integrity and social validity of the project and the impact evaluation.

For the evaluation of the OSHub.Network project we will examine the process at 3 levels. The first level being that of the European-wide network made up of the 9-partner consortium. The second level being each individual OSHub and their local stakeholder network. The third level will examine the individual events, projects and workshops that take place within each OSHub. Partners are prompted to think about these 3 levels upon providing their feedback.

We will aim to gather information of participants' individual experience from the OSHub.Network consortium. We hope this will give us an understanding of each partner's current situation. By designing a means of periodic self-reflection we can then track partners' progress over time. This will allow us to create a stronger support network for the consortium where we can create efficient and suitable collaborations, tailor training to partners needs and inform the future strategy of the OSHub.Network.

We hope to gain insight into the following information from the Feedback Forums:

— The current perspectives of each partner from month 1-7 of the project and how Covid-19 restrictions affected their progress

— The experience of each partner communicating/collaborating with other partners in the European network and with their local network.

— The experience of each partner during the previous two OSHub.Network training webinars.

— The potential ability for each partner to conduct evaluation in their local OSHubs over the course of the project.

— The information each partner wishes to obtain from the OSHub.Network.

In line with best practices we wanted to create a feedback system that is equitable and accessible for all the partners involved. We hoped to create a platform where participants could feel included and validated in their contributions. Currently Basecamp is the platform used to exchange information and provide updates about the project. We offered partners two ways to provide feedback, one being an online questionnaire the other being an interview. Partners were also invited to provide any other suggestions to give feedback if neither of these suited their situation at the time. We conducted the questionnaire and interview using open-ended questions that were designed to prompt an effective and honest sharing of experiences.

2. ESTABLISHING FEEDBACK FORUMS

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The feedback forums were established in order to track the experience of each partner of the OSHub.Network over the course of the project. These were created with the aim to inform the succeeding steps of the project.

There were 3 aspects of the partner experience we wanted to capture through the use of the questionnaires.

First, we wanted to obtain and understand their experience of the project so far. This included commencing the development of their local OSHub, communicating with local stakeholders and schools, their experience of recent training events and how they have been dealing with the COVID-19 restrictions.

Second, we wanted to gain insight into each partner's interest and ability to carry out evaluation within each of their hubs, looking at what interests them in terms of impact and what they can do to measure it. This allows us to understand each partner's situational needs and interests in order to assist the development of an evaluation toolkit to holistically evaluate each OSHub.

Lastly we wanted to obtain and understand the needs of the partners, both their immediate needs and their local needs so that we can provide useful and effective training and support in the future.

2.1   Questionnaires

The questionnaires were designed via google forms consisting of 5 questions and 1 optional box to add further comments. Each question came with a detailed description providing further insight and prompts to assist participants in their answers. The questionnaires were distributed via Basecamp.

These questions were as follows:

1. ## How do you feel about your overall experience of the OSHub.Net project thus far?

   Please feel free to tell us about challenges, successes, COVID-19 frustrations, or anything else you want to get off your chest!

2. ## What has been your experience of developing/expanding your networks for the OSHub.Net project?

   Please feel free to tell us about your general experiences working with other project OSHub partners, schools, and/or other stakeholders.

3. ## What has been your experience of participation in the training webinars?

   Please feel free to let us know what aspects of the sessions you found helpful, your experience of the tools, whether you have used the tools or if you plan to use them in the future, whether you have taken inspiration and modified the tools, or anything else about the training you would like to share.

4. ## What do you feel are the potential impacts that your OSHub can make?

   While we cannot measure the impact of every aspect of the project, we would like to prioritise the aspects that are most important to you. In your answer if you refer to the impact of the ‚Open Schooling' approach, please detail what this means to you and the effect that might have on your local network, as well as the European-wide consortium.

5. ## What resources can you realistically provide for evaluation during each OSHub workshop/event?

   Please let us know if you might have a dedicated staff member (either yourself or facilitators, teachers, or anyone else who might be willing and able) to help evaluate activities. We would also like to know how much time you estimate that person could provide (whether it's a constant present during the activities, or a few minutes, or an hour after each activity has finished). This could include distribution & collection of surveys, conducting observational tools, interviews and data processing. Understanding what capacity each partner has for evaluation will help us to tailor our tools to best serve the needs of the project.

6. **Any other comments**

    If you have any feedback on any aspect of the project, or even your experience of completing this questionnaire, would you be comfortable completing a similar form every few months? Please feel free to share your thoughts here.

2.2   Interviews

The interviews were conducted using Zoom Video Communications software. All interviews were scheduled for 40 minutes, the questions were designed to be open to allow the interviewee to express the information they felt was most important. Interviews were created to allow participants an alternative form of expressing their experiences, concerns and needs as opposed to the questionnaires. They were also designed to capture different aspects of the partners experience, potential future goals, and opinions on open schooling. Interviewees were encouraged to speak as openly, as long or as short as they wished.

The interview questions were as follows:

1. **Since the start of the OSHub project there have been a multitude of developments across each local hub as well as the larger consortium. What have been the most significant developments for you?**

2. **Thinking about the OSHub project on personal, local and network wide scale. What are your hopes for the future in relation to the OSHub project?**

3. **In your own opinion what does 'Open Schooling' mean?**

4. **Do you have any other comments you would like to add?**

3. Findings from Feedback Forums

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The questionnaires were collected and analysed. The answers submitted per question were broken down into categories of topics. These feedback forms can be used at various points of the OSHub. Network project to compare the frequency of the topic over time. We can also compare the negative or positive feedback related to each topic over time.

3.1   Results

The following is a summary of answers from the partners involved in the OSHub.Network detailing their collective experience. Eight out of the nine partner institutions responded with the questionnaires. Impact Hub was one partner who did not respond to the survey as they are not involved in the set up of a physical OSHub,instead they have a supportive role in enterprise models, legacy and sustainability of the Open Science Hub.Network project. From the partners who responded to the survey their answers were as follows:

1.   What is your experience with the project so far?

Consortium

All partners reported positive comments relating to collaborating with the partners in the European-wide network. There were several accounts detailing an 'untapped potential' of collaboration in the consortium. Most partners felt as though the consortium could be better connected. Partners have requested to have more frequent networking opportunities with one another. They wish to hear from each other to share their work so far, as well as their work on other projects and programs that can act as inspiration for OSHub projects. These could include outreach activities, community engagement initiatives or workshop tools. There needs to be a greater understanding of each partner's progress in establishing their local OSHub network, sharing useful resources, workshop tools, evaluation tools, recruitment process and how they are communicating with stakeholders and potential stakeholders.

Stakeholder engagement

It is apparent that COVID-19 restrictions have affected all partners in the

consortium. However, some partners have had the opportunities to improve their school engagement due to the situation in their local areas, by offering activities and programs to help maintain communications between school and student. The majority of partners have been negatively affected by COVID-19, losing complete contact with schools on lockdown. Some partners are therefore unsure what their situation will be when they are set to return in September.

Similarly, COVID-19 has affected communication with stakeholders. Some partners feel it has been difficult to connect with stakeholders as local businesses had to close due to restrictions. Those partners who have been in contact with stakeholders reported having a very positive experience. As they discussed the potential for collaboration, stakeholders were excited to see that they had aligning goals.

OSHub Location

Establishing a physical OSHub has seemed challenging for the majority of partners so far given the COVID-19 restrictions. There is great uncertainty moving forward into next year regarding social distancing measures that may affect the physical manifestation of the OSHubs. As of June 2020, there are 4 partners now considering mobile OSHubs. Due to COVID-19 restrictions it may be safer and more economically efficient to travel to schools and communities in already established workshop spaces than to set up a new space that has to be newly furnished and adhere to social distancing restrictions, as we are unsure what the restriction may be in 2021.

2. What has been your experience of developing/expanding your networks for the OSHub.Net project?

Partners reported the majority of this information in the first questions, detailing the difficulty in establishing stakeholder relationships due to lockdown restrictions. Some partners have had previous relationships with local stakeholders whom they are currently in conversation with about future planning of their projects. Most partners need to develop their stakeholder relationships. Partners are planning future co-creation sessions with stakeholders including schools, municipalities and governmental bodies. Some partners in the consortium are looking for information on best practices for approaching stakeholders and hoping to learn from partners who have taken a lead in this area.

3. What has been your experience of participation in the training webinars?

Overall the feedback from previous training webinars has been positive. Partners have appreciated being introduced to new collaboration tools. Partners have begun to implement these tools with local stakeholders or have adapted them for use amongst their own team. All partners are planning to use the tools in the future; however they feel as though they need more workshop and curriculum-based content as well as structured objectives to approach stakeholders further.

4. What do you feel are the potential impacts that your OSHub can make?

Partners expressed their belief in creating a positive impact for student learning, particularly amongst those traditionally underrepresented groups that aren't active in socio-scientific practices. Partners feel that contemporary forms of education can assist with student learning and teacher facilitation. Partners believe that connecting science with society can create a structural change in schools that can better link the student learning with local community developments. By creating these links with society, they can co-create sustainable projects that tackle local issues and establish a collaborative sustainable network within the local community. They hope to empower schools and their communities to feel responsible and provoke agency, developing a positive outlook towards STEAM, open science, and community engagement, supported by a European-wide network. From the past several months of lockdown many equitable issues have been noticed relating to access of education. The importance of open access to education and active citizenship could be a much more relevant issue moving into the future.

5. What resources can you realistically provide for evaluation during each OSHub workshop/event?

Partners have reported that they can offer some resources to evaluate the OSHub projects. They have requested tools that can be integrated into the workshops and events that are creative and engaging, but also not time consuming. Partners have said they have interns that may be able to help with evaluation, however they don't feel like they can evaluate every event.

3.2   Interview Results

The following is a summary of answers from the partners involved in the OSHub.Network detailing their collective experience. Seven of the nine partner institutions took part in interviews. Their answers were as follows:

1. Since the start of the OSHub project there have been a multitude of developments across each local hub as well as the larger consortium. What have been the most significant developments for you?

As previously mentioned, all partners commented on the effect of COVID-19 restrictions. This occurred in two ways, firstly by directly halting their programming by having to close their centres. Secondly by indirectly resulting in loss of communication from schools and stakeholders due to closure of schools and local business and restricted availability amongst governmental bodies and municipalities.

Due to the COVID-19 restrictions, partners that approached schools found "Schools were interested in the project, but were occupied with other worries at the moment". Partners began shifting their focus, to better align their goals with that of the schools they wish to work with. In consulting with schools,partners began to explore local challenges facing students who couldn't engage with school activities due to COVID-19 restrictions. This allowed some partners to build relationships with schools and understand their potential needs for the future. The same restrictions made partners rethink the physical space of their OSHub location. Several partners are now pivoting to a more mobile-like hub where they can move freely between several locations.

The partners' goals for each of these projects has also shifted. Partners are using the project to establish themselves as an entity in the community, some using the opportunity to work with new audiences they have not worked with before due to financial constraints. Other partners are using the opportunity to formalise their educational programs and engagement with schools.

Many partners commented on the usefulness of the consortium, detailing the potential it has to provide resources, tools and the potential to strategise as a network, as well as the support partners can give to each other throughout the project.

2. Thinking about the OSHub project on personal, local and network wide scale. What are your hopes for the future in relation to the OSHub project?

Partners reported that on a personal level their hopes for their future in the OSHub project were to gain insight and inspiration from the European wide consortium. They hope to have more opportunities for networking. They also hope that the OSHub.Network project can act as a springboard or stepping stone for larger future projects.

At a local level, partners reported that OSHub.Network can be a great way to establish and/or maintain relationships with local schools, business, policy makers and communities. They hope to establish flexible and sustainable projects that offer contemporary forms of learning using experimental interdisciplinary methodologies for local schools and communities to collaborate. Some partners are aiming to work with an audience they traditionally did not have the opportunity to work with due to financial constraints. They hope to work in schools from lower socio-economic areas, minority groups and those traditionally underrepresented in STEAM education.

In general partners felt that creating an OSHub can allow partners to build relationships with schools and understand their needs. It offers an opportunity to embed open schooling practices into a state curriculum and develop a way to guide for other schools to also develop open schooling strategies.

From a network-wide perspective partners feel that finding common denominators between each partner is important for creating a structured support network. All partners feel that there is a strong benefit from working with the consortium. Partners can get inspired from each other, share tools and resources, trends in science communication and learning metho-

dology. Working with a European-wide consortium offers a diverse bank of ideas that together can be used to design a flexible toolkit of template workshops, and 'how to guides' for entities who wish to develop open schooling in the future. The international network also provides a strong platform for investigating the impact of science and society across different cultures, and provides multiple channels of investigation, such as the effect of regional infrastructure in community development. This also adds depth for students involved in the project to understand how their local work can affect others globally.

3. In your own opinion what does 'Open Schooling' mean?

All partners had a variety of opinions about what open schooling involves, how it can be implemented and what it means for schools and society. A combination of opinions resulted in the following explanations of open schooling.

Schools are empowered to solve challenges of local development, well--being and social innovation. Through contemporary learning models open schooling aims to link schools with societal actors to collaborate and develop meaningful supportive experiences where all parties are treated as equal. By empowering schools to take an open schooling approach we encourage the use of accessible and equitable learning resources. These create an open and flexible structure for learning that can also be tailored to specific audiences that may face particular exclusion barriers to non-for-mal education.

Partners agree that open schooling needs a strategic approach that targets groups traditionally underrepresented in STEAM subjects. Students are exposed to alternative non-traditional forms of education that grant them greater access to their local communities and interdisciplinary forms of knowledge. These types of interactions can help students relate science and society, and highlight advantages of intersectional approach in colla-boration to solve local challenges. It permits students to be more critical of their situation, empowers them to take responsibility and provides agency for action.

4. Future Actions

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As a result, from the answers we obtained from conducting questionnaires and interviews we wanted partners' feedback to be as constructive and influential for the next phases of the project. Therefore, the feedback has informed the following future actions for the OSHub.Network project.

1. Regular consortium meetings will be scheduled with an agenda including updates from partners, sharing of information regarding workshop development, engagement tools and educational resources.

2. Partners will get to hear from one another about their experience of the project so far, what they have developed and what their needs are going forward. This will allow partners to find common denominators between them such as: project topics of interest, workshops options, mobile labs and evaluation tools. We hope this will allow partners to establish collaborations together.

3. The creation of a strong explanation statement of Open Science Hub for stakeholders, researchers and school that details the purpose and goals of each OSHub and how they can get involved.

The OSHub.Network workshop taking place after these results have been gathered (July 15th 2020) will consist of partner presentations and speed dating. This is to allow time for partners to network with one another and establish potential collaborations for the future. The workshop will also feature new tools and resources for evaluation that the OSHub partners can explore and to decide which tools will be best suited for the project. This will also inform the basis for Task 5.2 and Deliverable 5.2 and 5.4 and will lead into the establishment of WP6.

DELIVERABLE 5.1

Feedback Forums