

MiO

spanish local hub report

july 2023

A dark blue diagonal graphic that starts from the bottom left corner and extends towards the top right corner, creating a triangular shape in the bottom right of the page.

about us

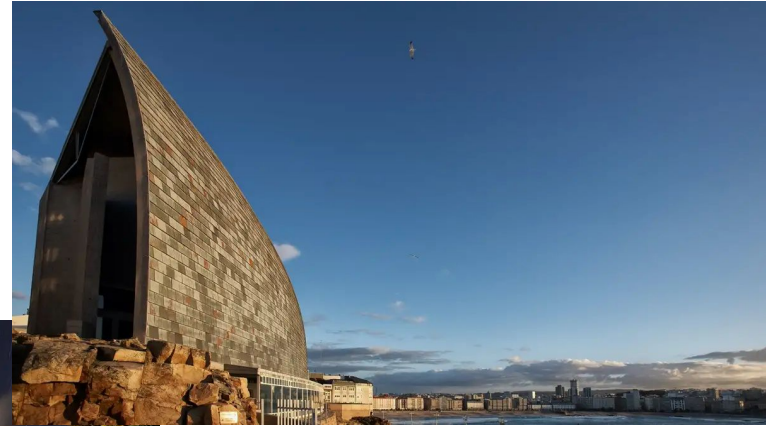


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about us – museos científicos coruñeses

- first public science centre in Spain.
- ~ 400,000 pax a year; > 1/3 school visits.
- is well known for citizens and educators



about us – maker@domus

- maker@domus ~10y ago
 - maker/tinkering activities (TinkeringStudio)
 - teacher courses
 - Bricolabs, a maker community
 - OSHWDem maker faire



about us – hub leaders

- the “core” of the spanish hub
 - Pilar, Manel and me
 - maintenance equipment
 - we are **outsiders** **
 - MiO = OS + Maker => opportunity



reaching out to teachers



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reaching teachers - the materials

- materials for teachers
 - Learning scenarios
 - Navigator
 - toolkit

open schooling navigator

Home Open Schooling Materials Build your own About Open Schooling

Open Schooling Navigator

Your guide in the world of Open Schooling

Sounds around us
Become a better listener by strengthening your sensitivity to sound
3-16 yrs. 12 hrs, 40 min

Zero waste school
We produce a lot of waste. Does it have to be that way?
13-14 yrs. 18 hrs, 30 min

Decision-Making
Make better choices - by understanding the science behind decision making
14-15 yrs. 14 hrs, 20 min

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What Who Where With

16 Learning Scenarios

| | | |
|---|--|---|
| <p>Dealing with waste</p> <p>Generate creative ideas to rid ourselves of litter</p> <p>2-14 yrs. 24 hrs</p> | <p>Energy Research</p> <p>Inform yourself to better make the case for renewable energy</p> <p>11-12 yrs. 22 hrs, 35 min</p> | <p>Healthy Snack</p> <p>Resist junk food options by designing your own healthy snack</p> <p>13-15 yrs. 20 hrs, 10 min</p> |
| <p>Sounds around us</p> <p>Become a better listener by strengthening your sensitivity to sound</p> <p>3-16 yrs. 12 hrs, 40 min</p> | <p>Zero waste school</p> <p>We produce a lot of waste. Does it have to be that way?</p> <p>13-14 yrs. 18 hrs, 30 min</p> | <p>Decision-Making</p> <p>Make better choices - by understanding the science behind decision making</p> <p>14-15 yrs. 14 hrs, 20 min</p> |

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DOCUMENTO UNO: Introducción a Open Schooling

DOCUMENTO DOS: Ejemplos prácticos de Open Schooling

DOCUMENTO TRES: Planificación de actividades Open Schooling

Planificando la actividad Open Schooling

Una vez que has decidido empezar una actividad Open Schooling, ¿qué hacer para planificarla? Este documento te ofrece una panorámica general y consejos a tener en cuenta.

En las siguientes páginas encontrarás:

- Una lista de actividades Open Schooling.
- Una descripción detallada de las etapas de planificación.
- Una lista de sugerencias.
- Algunas historias de éxito para presentas en contacto con personas colaboradoras y socios.

DOCUMENTO UNO: Introducción a Open Schooling

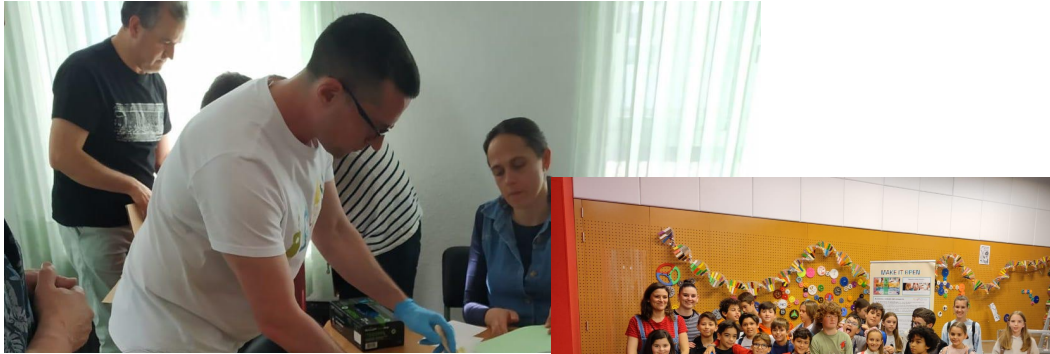
DOCUMENTO DOS: Ejemplos prácticos de Open Schooling

DOCUMENTO TRES: Planificación de actividades Open Schooling

Westcountry Women Working With Water (W3)

reaching teachers - pulling the agenda

- **face-to-face** visits to teachers
- we went to their schools
- primary and secondary **public** schools
- **motivated; involved; busy**



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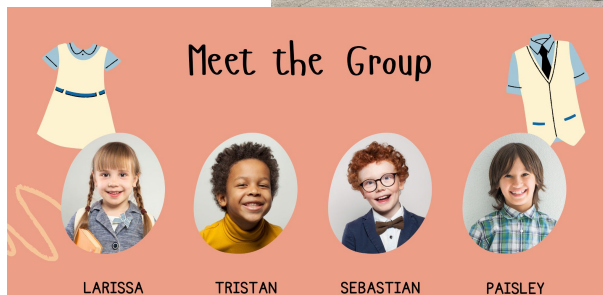
reaching teachers - our offer

- direct contact strategy was effective
 - although it was time consuming for us.
- our offer was **materials + help**
 - we did not know how we could help
 - (neither did they).



reaching teachers - their response

- they liked
 - **detail** of the LU
 - **step-by-step** of the LU
 - **downloadable** materials
- documentation is **better** than other projects



reaching teachers - questions

- can we **change** the LS?
- do **reports** have to be made?
- is this **for the teachers**?
- is there **financial endowment**? **



reaching teachers – reasons for not

- we discovered that there are lots of reasons for not taking part
 - lack of time
 - lack of colleagues
 - lack of coincidence of schedules
 - many others
- we just focused on those who agreed to participate

MiO in our hub



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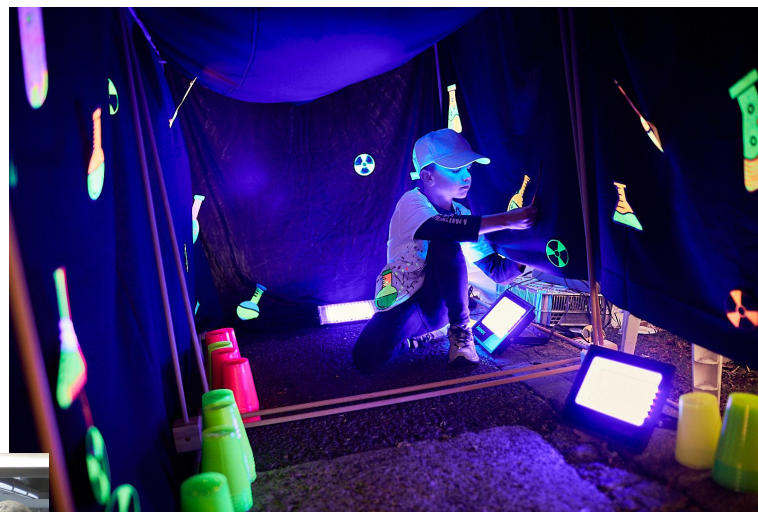
MiO in our hub – how they did

- all teachers **adapted** the LS
- **ages** only as a guideline.
- some did not reach the end
 - lack of time
 - subordinated MiO to other dynamics
 - integrate it into a "school project"al level.



MiO in our hub – how they feel

- they rated the learning **positively**:
 - **involvement** of pupils
 - better level of **learning**
 - **families**
- requires **extra time** and effort



MiO in our hub – our contribution

- They requested **little "help"** from us
- we **suggested** improvements
- our vision as **outsiders**) was useful.**
- they felt accompanied.



evaluation (not shared so far)



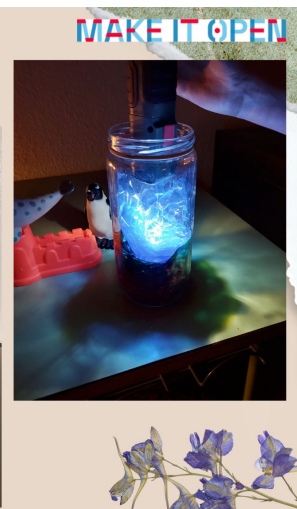
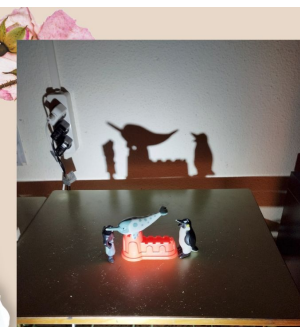
evaluation – the numbers

- make it Open was very **well accepted**
 - high **impact** on the school (KPI)
 - **high number of pupils** involved
- the navigator was a **key tool**
- need to **involve families** from the beginning
- necessity of **assessment tools**
- not having money as an **advantage**



evaluation – continuity

- project with **continuity**.
 - is a **style of teaching**
 - **iteration** over OS aspects
- **permanently** available



evaluation – public/private

- we addressed to **specific** teachers (public/private)
- MiO as a **framework**
- importance of follow-up
 - are very **self-sufficient**
- the view **from outside** added value.
- direct **personal contact** was decisive
- we need a **more efficient** follow-up system



evaluation – their feedback

- teachers as authors of their work
- doesn't like to fill in reports
- It's important to share



plans for future



future plans

CONTINUE WITH MiO

one year is too few for us



evaluation – role of museum

- a **new role** for science museums?
 - from a portfolio of services to **co-create** with teachers
 - **work together** to identify their needs
 - become part of our offer.
 - **will this** affect the number visitors?



future plans - navigator

- keep the **NAVIGATOR** and other materials
 - localise downloadable resources
 - **SUGGESTIONS** for an evolution of the navigator
 - make it a **planning tool**
 - help to implement **OS structure**
 - help to fulfill **OS aspects**
 - **sharing**

NACHOS Y CREMA DE AGUACATE

Ingredientes:
Tortitas de trigo
Aguacate
Sal
Leche
Leche

Elaboración:
Este snack es muy sencillo y divertísimo primero que hay que hacer es cortar los discos de papas en triángulos y hornearlos a 180°C en el horno hasta que estén dorados. Si wants open.
Mientras pelamos los aguacates y los batimos en una batidora con un chorro de leche una pizca de sal y añadimos el zumo de un limón. Realizar una crema homogénea que nos crememos en un bol.
Servir los nachos hornearlos y la crema y listo, decorar con cebollino fresco picado.

TORTITAS DE PLÁTANO O FRESA

Ingredientes:
50 gr harina de garbanos
10 gr de agua
1 pizca de sal
100 gr de leche o bebida vegetal
2 cucharadas de miel
25 gr de fresa o de plátano
1 huevo

Elaboración:
Mezclar todo hasta conseguir una masa homogénea
En una sartén añadir unas gotas de aceite y verter una cucharada de la mezcla, dejar que tome color y volumen, dar la vuelta con ayuda de una espátula y servir.
La podemos acompañar con fruta fresca, frutos secos s... chocolate y a disfrutar!!

Os resultados finais

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future plans – relation with teachers

- **efficiency** reaching more teachers
- expand the geographical scope.
- **strengthening** relationships
- **iterate** OS objectives
- sharing **between** schools



thank you



to be continued...

