

HANDBOOK

A toolkit for Adult Science
Education Institutions



TOOLKIT FOR ADULT SCIENCE EDUCATION INSTITUTIONS

A set of examples of good practice for intercultural science
learning activities

Authors:

Vasso Siameti, Fedoua Beckerman, NAVET Science Center

Vanessa Mignan, Céline Martineau, Association Traces

Heidrun Schulze, Irene Besenbäck, Alina Natmessnig, Barbara Streicher, Science Center Netzwerk

Nadja Lehner, Margerita Piatti, Christoph Omann, KOMPA

Eugenia Kypriotis, Ellinogermaniki Agogi

Luigi Cerri, Chiara Riccio, Fondazione idis – Città della Scienza

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Introduction

What is the PISEA Project?

PISEA - Promoting Intercultural and Inclusive Science Education for Adults is a European Project, which aims at making informal science learning and science engagement more inclusive and relevant for marginalized adults, particularly for those groups of migrants and refugees, who face economic, social, educational, cultural or language barriers and discrimination.

The PISEA project aims at making science engagement institutions places for adult science learning in an intercultural and inclusive perspective. It addresses science communicators and educators as well as management and other staff and provides resources such as guidelines and sharing of good practice, trainings and multiplier events.

The project also directly addresses marginalized refugee and migrant groups as adult learners in piloting a number of science engagement activities. For more information on the project, please visit <http://www.pisea.eu>.

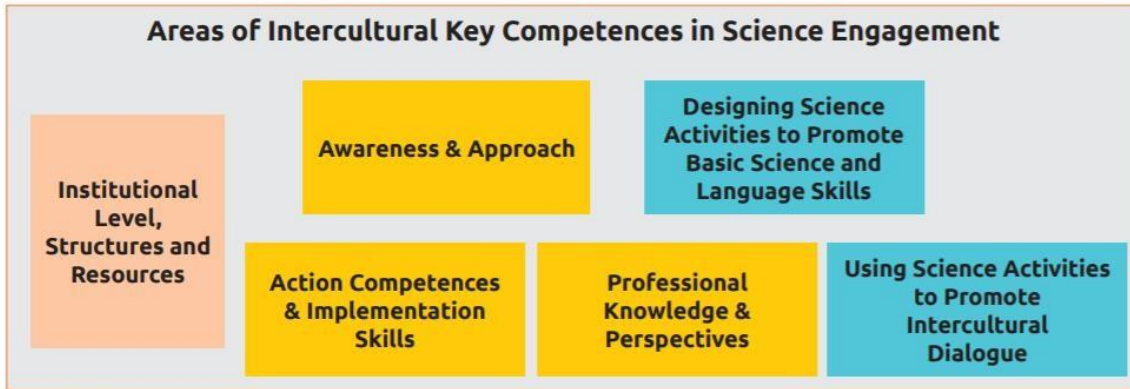
The PISEA project partners are science engagement institutions from five different countries and an Austrian-based NGO working with young and adult refugees on educational, intercultural and social issues. Project partners are the Association Science Center-Network, based in Vienna/Austria as lead partner, the school Ellinogermaniki Agogi in Attika/Greece, the Association Traces in Paris/France, NAVET Science Center in Borås/Sweden, the Fondazione idis - Città della Scienza in Naples/ Italy, and the NGO Kompa within Caritas in Vienna/ Austria. Some of us have already been working with marginalized groups of migrants or refugees for a couple of years, having learned a lot about the potential and the challenges of working with more diverse audiences and of promoting intercultural dialogue through informal science education. As practitioners, we want to share our experiences and develop new tools and resources. We want to build an international community of science engagement institutions that strive to become places, where both, socially inclusive informal science learning, and intercultural dialogue through science can happen.

During the first part of this project we defined some Intercultural Key Competences of Science

Educators/Explainers. This provides a basis for science centers and science museums to identify the potential training needs of their staff in order to raise the intercultural quality of their program

mmes.

We identified five competence areas for people working in science engagement, and one area addressing the level of institution and institutional structures more specifically. http://pisea.eu/sites/default/files/PISEA_BOOKLET_EN.pdf



Based on the definition of intercultural competences for science educators/explainers and by acquired feedback we developed a training resource for each of the five competence areas. The training resources are designed to be used in training workshops which can be held separately or as a tailormade training course combining several modules. You find them at Piseas homepage:

http://pisea.eu/sites/default/files/training_resources_en.pdf

The aim of the handbook/toolkit and how to use it

The handbook/toolkit for science centers, museums and other places of science education for adults serves as a quick-start toolkit for institutions interested in improving their institutions as inclusive science learning spaces for adult refugees and migrants. The handbook offers relevant science learning activities, in terms of promoting key competences and fostering intercultural dialog.

The main part of the handbook brings up examples of good practices of intercultural science learning activities. The activities have been developed by the project partners during the project implementation. These small-scale pilots may be interactive science learning activities, such as experiments, tinkering activities, dialog formats, intercultural encounters between refugees or migrants and the host society with a focus on science etc. The handbook presents various methods for working with migrants and refugees that consider similarities and differences within the groups and between these groups and the host society.

The second part of the handbook consist of:

- a set of recommendations for institutional change and improvement towards becoming interculturally sensitive and inclusive science education institutions for adults
- concrete tools, such as a model for an intercultural mission statement for science institutions education and
- a checklist for assessing the individual institution with focus on being intercultural and inclusive

The handbook addresses both the strategic level of management and the decision-making staff of science centers and museums, as well as the educator level, i.e. science communicators, and explainers concerning the development and implementation of concrete interactive science center activities.

Good practice examples

Navet Science Center, Borås Sweden

Title of the Activity:

Introducing Navet and science to immigrant-associations.

Target Group:

Mothers who are part of an immigrant-association.

No. of Participants:

The first occasion had 25 adults and 35 children.

The second occasion had 20 adults and children

Place:

Navet Science Center, Borås.

Duration:

The activity lasted for two hours. At first the immigrant-association had the exhibition for themselves. After one hour the main opening hours began and other visitors from the public came.

The first occasion was the 19th of May. After this other immigrant-associations heard about the activity and asked about the possibility for them to also come and visit. This led to one more activity, with the same aim and format, on November the 17th.

Aim and content of the Activity:

The aim of the activity was to give the TAB an introduction to Navet and basic science. The main idea was to invite the TAB for a free visit, where the participants could explore the exhibitions with the support from the explainers. This was done to make the participants feel familiar with Navet and also make them feel safe and welcomed. Most of the participants of the activity had not visited Navet before. The aim of the activities was to introduce the key elements that Navet think is important in science education, which is that Navet is a place for practical exploration where everyone is free to test and try out the different parts of the exhibition. It is a place for curiosity and creativity.

Navet chose to focus only on mothers. The reasons for this was to strengthen the mother's confidence in providing help to their children regarding school and homework. Mothers from the TAB can also suffer from a loss of status in the new homeland, due to lack of knowledge of the new spoken language and/or unemployment. Therefore, Navet saw the focus on mothers as a way to strengthen the status of the mother in the eye of the child, with improving her ability to be a bearer of scientific knowledge.

Language is a big barrier for the TAB, affecting the confidence in visiting a place like Navet but also restricting the access to the scientific knowledge. The educational backgrounds vary very much in the TAB, but even those who have a scientific education from their homeland can feel at loss when speaking about science in a foreign language. Therefore, in this activity it was vital for Navet to introduce basic scientific concepts in Swedish, to make them feel familiar for the mothers and strengthen their confidence and ability to teach their children about them. Navets explainers mainly used simple Swedish but one of them also knew Arabic, which was the native language of the participants. If one of the participants wanted, she could ask for help in Arabic.

Partners:

Navet had no strong contacts with the Target Group ,TAB, and therefore needed partners who could provide a network. One of the explainers visited a meeting with NGOs who work in the field of integration to research if any of them was interested in a cooperation. After this meeting a collaboration was formed with Medborgarskolan, an adult education association. Medborgarskolan was chosen because they have a good understanding of the aim of PISEA and also have a good network with many immigrant associations in Borås. Firstly, all the immigrant-associations with a collaboration with

Medborgarskolan was contacted with the offer to visit Navet for free. At this time only one Syrian association responded. Later on two other associations contacted Medborgarskolan and showed interest as well. This led to another occasion, with another Syrian association and a Pakistani association.

The contact person from Medborgarskolan was a part of the greeting in the activity. She assured the participants that they had come to the right place, answered questions and also explained why the activity was for women only.

Format /Activity/ Facilitation Method:

The visit started with a greeting in the lobby, where Navet's two explainers introduced both themselves and Navet and explained how the visit would unfold. The format for the visit was that the participants were free to move around in the exhibitions and try things out. When they wondered how things worked or wanted the science behind them clarified they asked for help and were given a verbal explanation.

Navet has two floors of exhibitions and the participants explored one at a time. It was the explainers who decided when it was time to move upstairs. Some participants left earlier and therefore came to the explainers and thanked for the visit. After two hours when it was time for the explainers to leave, they found every participant and had a brief conversation with them, where they thanked them and welcomed them to come back another time. Most of the participants left after this, but they were welcome to stay as long as they wanted during the main opening hours.

The participants were mothers and children. One man also came, as a support for his wife due to the fact that one of their children was in wheelchair and needed assistance. On beforehand Navet discussed if the activity should address the mothers only, but they reached the conclusion that if the children weren't included it would prevent many from coming, due to lack of childcare.

Feedback and learning experience:

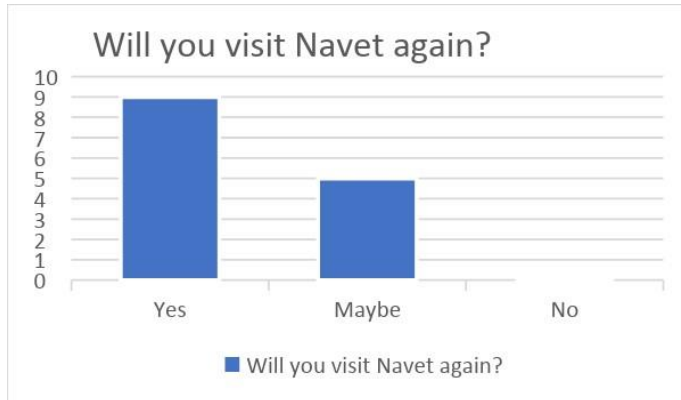
After the activity the participants were asked to fill in a questionnaire to give feedback. It was given in a written format, with the questions asked in both simple Swedish and Arabic, and they were asked to give it to Medborgarskolan. 14 people answered, all of them in Swedish. There are indications that the participants found it hard to fill in the questionnaire, which is shown by the number of participants who answered. Also, the handwriting is the same in all answers, which shows that one person probably was asked to help write down all other answers. The feedback only came back after the first occasion, and not after the other occasion.

The questions asked were:

1. Did you know about Navet Science Center?
2. Will you visit Navet again?
3. What did you like best with your visit to Navet that day?

4. What did you think was less good about your visit that day?
5. Did you learn something new during your visit at Navet?

The feedback that did come in shows that eight people knew about Navet beforehand and six did not. All the participants said that they learned something new.



However, the feedback also shows several areas of improvement. Particularly that the participants found it hard to understand how to try out and test different parts of the exhibitions. They wanted more explanations, both written in Arabic and verbal. This is also shown in the answers to question No.3 as it was the more approachable parts that were the most appreciated, like the water-exhibitions or driving the bus. These things are easy to understand how to use.

The explainers were glad that other immigrant-associations reached out with interest to come and visit, which shows that the activity and its format was appreciated. In large the format was reproduced the second occasion. Based on the feedback from the Syrian association Navet had two more people with them, so they could meet the need of verbal explanations.

The activity and the format could be reproduced again to meet even more of the immigrant associations. However, then it would be necessary to have more resources allocated in the budget, due to the fact that it needs staff outside the ordinary opening hours and also that the explainers don't usually work on the weekend. It would also be meaningful to offer childcare, to make it possible for the mothers to focus on their own learning.

The activity and intercultural dialogue:

The activity and its format met Navet's expectations and was also meaningful for contributing to intercultural dialogue. Navet had few, if any, connections to the participants on beforehand and it was learning experience for both Navet as an institution and for the participants. Therefore, the activity was a good format to meet over cultural barriers.

The first visit to Navet are always more of an open exploration, no matter if it is the TAB or the public, but if the visitors come back they have more time and interest for doing experiments and deeper focus on specific parts of the exhibitions. This would be a reason for inviting the same immigrant-associations to come back another occasion, to give time for more theme-based learning. Also, if the participants would return it would be possible to build connection and get to know each other more, which would be very positive for the intercultural dialogue. To get to know each other is a key element in building respect and an open climate for discussion, even for more sensitive matters.

The framework for the activity were the intercultural key competence. Navet wanted an open and flexible approach, and have also had much self-reflection on how they could develop a more inclusive climate for the TAB. The activity lead to many good learnings on how culture affect the interpretation of science. Much focus has been given to language, both to be able to offer explanations verbally and written. This refers to both easy Swedish and in other languages. The

activity also highlighted the need to have more staff, to be able to scan and meet the participants needs, as there was a big difference in knowledge and how familiar the participants was with science.

The focus on mothers, and their children, was fruitful. The dynamics between mother and child are similar, no matter the cultural background.

Ellinikogermaniki Agogi, AE, Athens Greece

Title of the Activity:

Proposing activities to NGOs (Immigrants/refugees associations) and schools (head masters and teachers) hosting immigrant/refugees together with local children.

Target Group:

NGOs educators and Headmasters and Teachers of intercultural schools. Eventually the activities proposed during the two days would involve families (of refugees and local families), adults only and kids only. So there was a mix of proposed activities schools and NGOs could use.

No. of Participants:

About 25 participants from different schools and organisations.

Place:

Diophantus offices, central Athens, Greece

Duration:

Each activity lasted for half a day

1st of June 2018

9th of November 2019

Aim and content of the Activity:

In order to reach the maximum impact our main target group was to reach out to the people who come into direct contact with refugee families. These are NGOs who go to refugee camps or organize after school programs for adults as well as schools that host Greek and refugee children or immigrants of first and second generation. We aimed to propose activities that would be for whole families, that would involve ideally both local and refugee families for the schools and that would need minimum amount of talk.

Partners:

EA is a school that has many contacts with other schools across Greece. In order to prepare the activities for PISEA it partnered with associations with experience and contacts with refugees and other schools across Greece, mainly with the Diophantus Institute. This organization that is a public research and technology organization has in the last years begun being involved in a number of projects promoting intercultural dialogue. During the two days in June and November an extended invitation was made to NGOs working with refugees extensively like Metadrasis and Elix and Xamogelo tou Paidiou as well as to school leaders who host refugee and immigrant children. By engaging and mobilizing these key people we managed to reach hundreds of families of refugees in

different sites in Greece and in schools in the area of Athens, with proposed small scale activities. In September with our Multiplier Event in Athens we plan to re-invite the associations and refugees who have been involved in the activities to discuss their involvement and showcase all the project outcomes.

Format /Activity/ Facilitation Method:

Each day started with a greeting by Diophantus and EA where we introduced the theme of the day (proposing specific activities for families mainly and then also adults and children promoting intercultural dialogue). The rest of the day was devoted to letting the educators try out the proposed activities from EA and share their questions, comments and concerns at the end of the day. In each of the two days different activities were proposed and it was interesting that in the second meeting we managed to get people from the same organizations and even the same people returning back.

Feedback and learning experience:

At the end of each day the participants were asked to fill in a questionnaire to give feedback. It was given in written format, with the questions in Greek. All the participants answered.

The feedback from the participants was very positive focusing on the practical aspect of the day as well as the chance they got to share concerns with other people like them.

Here are some of the quotes written:

It gave me practical examples on how to change the current frame of cooperation that we have with parents of refugees

I learned how to approach issues which concern newly arrived parents

I liked very much learning on ways of intercultural communication that are not related to verbal communication

That it gave me ways of communication with newly arrived parents

I gained approachable techniques for teachers' cooperation regarding newly arrived people's training

I learned how to approach people who don't speak the same language as me

I learned how important is to engage refugee parents in the school and some ways to achieve it.

I'm going to use the proposed activities in the next school year with my pupils' parents.

Overall people wanted even more practical and well-thought-out activities they could use with families that would involve minimum talking and that would bring them closer to the Greek society. They thought the activities would be very valuable for the locals too and they looked forward in using them in their premises.

The activity and intercultural dialogue:

A key element as mentioned previously was that the two days focused a lot on how we could bring together local and refugees in common activities. For the schools it was the first time they also got some practical recommendations on how to involve not only the children but their families too and how to give them a more prominent role, make them feel more welcome and connect them with the local society and other parents.

Science Center Netzwerk, SCN, Vienna Austria

Title of the Activity:

Science in dialogue: Intercultural dialogue through scientific activity

Target Group:

Adults with migration background, who are learning German language during the first and second event (the majority did not have an academic background). For the third event a larger audience from the Iranian Diaspora organization was invited.

No. of Participants:

25 participants

Place:

Knowledge°Room, Vienna-Austria

Duration:

3 sessions for 2-3 hours each

Aim and content of the Activity:

The aim of this small scale pilot is to establish an open dialogue at eye level with a mixed group of adult migrants and refugees on the occasion of visits to the pop-up science center Knowledge°room in Vienna, and based on science engagement activities.

The focus of the small scale pilot is on identifying the potential relevance of science and science engagement activities for adult migrant and refugees, rather than trying to convince them that science “must” be interesting for them, too.

The dialogue on eye-level should create an open and trustful space, where curiosity and interest in science can develop. Thus, participants shall be enabled to develop a self-motivated and self-defined engagement in science.

The visiting group will also actively practice German by participating in discussion and by receiving reading material. Moreover, the group can bring its own ideas to develop other activities, which are related to other cultures and can be included in our science center.

Partners:

Iranian Diaspora Organizations: *Ashiyane, Khaneye Iranian*

Format /Activity/ Facilitation Method:

The small scale pilot comprised three visits to the Knowledge°room. The participants observed and engaged in our exhibitions, tried to find out the variety of sciences and scientific topics, and discussed the relation and relevance to their everyday life during the first two visits. Different science activities were used and later the group discussed the discovered facts and the relevance of science for them.

Based on this discussion they were invited to develop their own ideas for interesting science topics and activities in the Knowledge°room. Between the second and the third visit the participants developed a Persian Calendar as well as a presentation about Omar Khayyam, a well-known Persian Mathematician and Artist.

During the third visit both ideas were introduced to a wider audience.

Feedback and learning experience:

It was very new for the participants to engage with such a place. They explained that their only connection outside their home with society is their German language class and also the supermarket. The participants expressed their interest to continue visiting the Knowledge°room in order to expand their networks and also communicate with other people in Vienna. Moreover they enjoyed their time in our pop-up Science Center as they were able to practice their German in a hands-on way.

Another learning experience for the participants was that by developing the calendar and the presentation they learned how to communicate scientific and abstract ideas.

The activity and intercultural dialogue:

One of our goals was to give the participants a welcoming feeling and encourage them to visit the science center more frequently. This goal was reached as some of the participants came back to visit individually and moreover, bringing their friends and family members.

An important lesson learned for us as an organization was that connecting with these diaspora associations requires building strong connections with them. For engaging in an intercultural dialogue, we need to explore the demands and interests of the community. For instance, we found out together with people in the community that the Persian scientist Omar Khayyam is quite popular among the Iranian. Thus we prepared a kind of platform in form of an event to provide a dialogue within their community (intracultural) as well as with other communities.

We also realized that language plays an important role. Some of the participants did not trust themselves to come in Knowledge°room due to difficulty with the German language. Nevertheless, lack of sophisticated knowledge of German did not hinder them to participate in our activities. We built an environment in which the participants could present in German, English or their mother tongues (Persian) by supporting them with an interpreter.

Association Traces, Paris France**Title of the Activity:**

E-FABRIK' between young migrants and disabled people in Montreuil

Target Group:

The target group is composed of 6 young illegal migrants most of them coming from sub-saharan countries. They are between 16 to 23 years old, and most of them do not speak French.

No. of Participants:

6 young migrants

3 to 4 disabled adults

1 fabmanager, 3 educators

Place:

In the 3 different places detailed above, in Montreuil (Seine-Saint-Denis – France)

Duration:

18 workshops of 2,5 hours each, during 3 to 4 months.

Aim and content of the Activity:

The aim of this small-scale activity is to organize several workshops for young migrants (from 16 to 23 years old) in which they will create and design an object that is useful for a disabled person who is connected with them. To design and build this new technical and personal solution, they will learn how to use new digital tools, such as the ones that are used in Fablabs.

The focus group is composed of 6 young migrants who are following a special program in an NGO in the city of Montreuil (Suburb of Paris). Most of them do not speak French.

During the workshops, the participants meet each other (young migrants and disabled people), get to know each other, and then, step by step, they together identify the different personal and practical needs of disabled people. After several workshops focused on selecting and designing the first ideas, they have to build and create the prototypes in a Fablab.

Partners:

S'PASSE 24 of the NGO AURORE for the young migrants (Montreuil)

Fablab Pop'Lab of La Maison Populaire (Montreuil) Center

for disabled adults in Montreuil (MAS Glasberg)

Format /Activity/ Facilitation Method:

The first workshops are designed to facilitate the meeting between the young migrants and the disabled people: share a snack, visit the disabled center and visit the Fablab.

Then, the next workshops focus on the discussion and the selection of ideas between the participants, in teams. Some workshops are focused on design methods and the maquette of the first ideas, with papers, sticks, cards, glue, clay, etc.

Then, the following workshops focus on the prototyping of the ideas selected and the building of the prototypes. Some discussions and exchanges between the participants can happen, between the prototyping workshops.

One workshop is focused on the enhancement of the competencies developed during this project.

And the last workshop is a celebrating party, to finish the project with happiness.

Feedback and learning experience:

We realized that most of the young migrants had never really used a computer, which are used a lot in a Fablab. The Fab manager decided to take some time during the first workshops to set the basis of how to use a computer.

Compared to some other territories, the discussions between the young migrants and the disabled people were more difficult, of course, due to the differences of languages. They had to use more time and pictures to understand each other.

Furthermore, the Fab manager and the professional involved decided to choose and select some ideas of prototypes that are easier and simpler to realize and build. They avoided to use electronic and coding skills. And they targeted the use of modelization in 2D and 3D, the 3D Printer and the Laser Cut.

The activity and intercultural dialogue:

The intercultural dialogue was included in all the workshops, especially in the beginning. But in fact, in this project, the intercultural dialogue is as important as the dialogue between the disabled and non-disabled people.

Moreover, this project allows young migrants who are mostly depending on so many people in France (administrative procedures, money, living conditions, etc) to, for once, use their skills and time to create something useful for people who need it. And vice-versa: the disabled people have the feeling of being useful for these young illegal migrants, by sharing their lives, offering them the opportunities to do something together, etc.

Fondazione IDIS - Città della Scienza, Napoli Italy**Title of Activity :**

Sundays at Città della Scienza for families with children

Target group:

Mothers with their children from Ukraine and Nigeria, they have been victims of violence and are currently living in a reception center in the Department of Naples.

N° of Participants

Six mothers and ten children

Place

Città della Scienza, Napoli, Italy

Duration

The party took place from 10:00 to 14:00 of Sunday March 3rd 2019

Aim and content of the Activity

The aim of this activity has been to let the parents experience (in this case migrant mothers who have been victims of violence and actually hosted at reception centers) the effectiveness of education in science as a key for social integration. Education in science for children is fundamental under a pedagogical point of view, because it drives them to reflect about reality. Adult educators should offer to children environments where science is fun and stimulates curiosity.

Hence an adult should be previously “educated and sensitized” to science. Science centers are ideal places where this process could be promoted, being useful places to socialize, to learn in a nonformal way and mostly to have fun.

In order to offer the opportunity to get access to these kinds of places to migrants and refugees, Città della Scienza organized on Sunday March 3rd 2019 a Carnival party with shows, animation activities, educational workshops and guided tours to Corporea, the hands on exhibition about human body and health. With the help of the NGO, a group of Ukrainian and Nigerian mothers, who were living at

the reception center in the province of Naples , were identified and invited to attend the party along with their children.

The opportunity to attend the party started with the need to encourage inclusion and give the same opportunities to every child.

Partner

GNO Cooperativa Dedalus.Thanks to Dedalus we identified a group of Ukrainian and Nigerian mothers hosted by a reception center in the Department of Naples.

Format/Activity/Facilitation/ Method

Below is the agenda of the party:

Guided tours to the exhibition Corporea, guided tours to the exhibition the Sea, 3D shows in the Planetarium, creative and scientific workshops, animations and entertainment games, costume parade.

All the children come to Città della Scienza in Carnival costume and in this playful context they participated in the workshops.

Because of the methodology adopted in these kinds of workshops and activities, the linguistic gap hasn't been a problem because the children understand what to do by directly observing the guides.

We can see the same thing in the guided tours as all of the exhibitions are based on a "hands on" approach.

Both mothers and children had never previously been to Città della Scienza. Children learned while they were having fun and their mother found out and really appreciated the possibility of combining play and learning.

The children participated to the activities together with all the other ones attending the party: a true example of integration and social inclusion.

The Carnival party in Città della Scienza represents an ideal place to offer its participants a pleasant, fun and at the same time stimulating experience as they get to ask questions about the science of everyday life that belongs to all people of every culture and ethnicity.

Questions about the human body, the life of organisms in the sea, as well as about stars and planets were the common thread that guided migrant mothers with their children in interactive tours of the Body Exhibition, the Sea exhibition and the show of the 3D Planetarium.

The manual and creative laboratories, scientific laboratories, animations and entertainment games, as well as the costume parade and the show on optical illusions, represented moments of strong emotional involvement and playing together helped to internalize the language of doing together; it does not need words ... The language, therefore did not constitute a problem since the children understood how to operate from the practical example carried out by the guide.

The methodology of these laboratories is based on the direct active experience of individuals, but often the final products are collective. This demonstrates the fact that group products represent a method of inclusion of participants that can break down any type of barrier.

The children arrived at Città della Scienza dressed in masks such as Spider Man, Hercules, vampires etc. Being in the role of fictional characters helps to shape one's own ideal of the self, but also to express, in the shoes of others, conflicts and ambivalences that cannot be verbalized by subjects in the developmental age.

Thus, in this case, Nigerian and Ukrainian children (as well as Italians) have been allowed to express themselves by dressing up in what they would like to be, or what they fear. And this psychological process is valid for children of all nationalities: a true transcultural example of possible integration.

Even in guided visits to the museum of the human body, the essence of the interactivity with the exhibits has helped in the ability to be able to carry out scientific ludic experiences without the need for language. The animator showed what to do (for example, he pedaled the bicycle, or walked on an axis with his arms open to balance and not fall) and the children were invited to emulate the experience.

Recommendations for institutions

An important thing to keep in mind is that the situation will vary from country to country. The prerequisites, the systems and the asylum reception differ, which affects the cooperation with the various actors. For example, in Sweden the easiest way to reach out to the target group was through cooperation with the associations financed by the government, while in Austria it was easier to cooperate with voluntary associations.

In the text, NGOs or voluntary associations are mentioned as important institutions or partners. In Sweden, the asylum reception looks different as it is primarily the responsibility of the government. This resulted in our decision in Sweden to cooperate with state-funded immigrant associations for new arrivals. However, the recommendations below can be applied regardless.

1. Mutual learning

Here we want to share our mutual learning of experiences of collaborations of our Science Centers with NGO's in Sweden, France, Austria, Italy and Greece.

1.1 Things that worked well

Most of the NGO's (or schools) we contacted showed high interest, because they had the opportunity to provide migrants and refugees with non-formal educational activities in science in addition to the activities that the organization usually offers. Some representatives of NGO's expressed strong interest in the opportunity to expand their action range to other kinds of proposals.

Here are some thoughts of NGOs we had contact with....

- NGOs working with women said that it was a good activity to carry out with the women to discuss issues like the female body and biology. They thought it was easier to do that at a science center.
- Organizations whose goal is to find suitable activities for immigrant groups said that our activities were not difficult to implement because it was us (Science Centers) who organized the actual activity.
- We were also told that many of the women felt strengthened in their role as mothers and knowledge mediators and wanted to visit us again.
- Some NGO's emphasized the importance of the fact that they should be the first to contact the beneficiaries and explain what the activity is about as they already know each other and have a bond of trust.

1.2 Things that did not work well

It was not easy to deepen our partnerships with NGOs. Time, limited resources, financial resources and other priorities of the NGOs were reasons why the partnership did not work out the way it was planned. NGOs priorities lie with working directly with the beneficiaries, and they could not afford to monitor or advise other projects. There was limited interest in Science Centers and (technology) museums, and especially the women's interests were low as these rather based on culture, language, handcraft, cooking and sports activities. Finding the right material for the activities was also an issue.

The NGOs prior focus is always on the basic needs of their clients, like for example:

- I. Food / housing
- II. Leagal status
- II. Health/Hygiene
- III. Support, Advices

Such serious issues need attention first, before being able to focus on Science Center activities but they can also be used as in introduction to science.

Recommendations for building a sustainable partnership

This chapter contains recommendations for building a sustainable partnership or collaboration with NGOs, resulting from our work experience in Science Centers in Sweden, France, Austria, Italy and Greece, as well as from the experiences from the side of our project partner Caritas -Missing Link, an NGO itself.

We are aware of the fact that each partnership between organizations is different and that you might know and implement the recommendations already. From our experience, building a long, fruitful and sustainable partnership is – in many cases – not very easy and there are more or less always the same aspects that one should keep in mind. This chapter can help you to prepare building new partnerships and might give you a hint in case it is not working out as well as it should be.

NGOs who work with refugees and migrants usually work with very limited resources and under a lot of pressure (political, social, etc.). Therefore it is important to be aware, not to burden them with additional work by a collaboration but to rather offer them work relief with your offer/activity for their target group.

- Considerations beforehand

Ask yourself, why do you want this cooperation and are you willing to take the “costs” of building a sustainable partnership. Building a good and sustainable partnership with another organization takes time and resources. Before you get in contact with a potential partner organization, you need to ask yourself:

- Why do you want to work with this NGO in specific?
- Which target group do you want to reach? Be as specific as possible (asylum seekers, refugees, migrants, adults, children, youth, etc.)
- Does your offer really meet the needs of the target group?
- What are the benefits for your organization/institution?
- What are the benefits for the NGO?
- What are the benefits for the target group/clients of the NGO?
- Who is the relevant person in the NGO to speak and cooperate with?
- How is the structure of the NGO (what is its specific aim, how do they engage with their clients, is the NGO working in an hierarchic or democratic structure, how big is the NGO – is it working internationally or only nationally?)

- Getting in contact

If you contact a NGO that you have never worked with before, try to find a person/department that could **benefit from the cooperation** with your institution. Explain your plans for the cooperation and how you think the NGO could benefit from it.

Make a persuasive effort: it is important that your potential partner organization understands that its clients can really benefit from your plans. They will ask themselves:

“Why should this be relevant for my clients?”

Why should they bother with science and technology, if they have a lot of other needs to fulfill with very few resources? For example, it could be important for the client to have proof of knowledge, such as a certificate in a specific topic, to improve their future job opportunities.

In some cases email communication doesn't work out well and receiving a reply can take quite long. In this case it might be easier if you communicate over the phone or in person.

Don't try to persuade the NGO to participate in the partnership! Maybe it will be possible later on or you find another partner.

Try to promote the interest in science by dismantling the idea that science is hard and unenjoyable. Migrants/refugees can elevate self-confidence by participating.

The director of an NGO explained that she was really interested in Science Center activities for the refugees she works with, but that she had absolutely no idea about what «Science facilitation and education» could be. Therefore, we recommend to explain the activities as precise and easy as possible in advance.

- Find a common aim/goal for both of your institutions/organizations

We recommend you to consider all details and the aim of the project in advance, in order to give a better view to the NGOs. Proceed by developing the goals and benefits together and draw a plan to reach out to your common target group and aims.

- Be mindful about resources

Be aware that NGOs might have few resources (personal resources and financial resources as well). If the NGO has the feeling that the cooperation will bring them “more work to do” than benefit for their clients they may not want to work with you.

- Make it as easy as possible, in specific: try not to overload your cooperation partner with organizational responsibilities.

- In the beginning it might be good to go to the place of the NGO or their clients instead of inviting them to come to your science center.

- Build trust in your partnership

Building trust is key in creating sustainable partnership. Meeting your partner in person and having a nice talk will make future communications much easier..

- Meet your potential partner in person
- Invite your partners to events to your institution
- Try to stay in contact on a regular basis

- Stay flexible

Try to keep it simple and be open for changes. There might be some obstacles in the beginning that you can solve later.

Be flexible with the target group. Intercultural schools for example, loved having activities for the parents, group meetings or events especially designed for them. The profiling of such events can help reach more people and attract more attention to the activities.

- Be patient

In our experience, it is very common that it takes time from the start of the partnership until the successful participation of the target group in the activities. The information has to go its way from your contact person to the team leaders and from there to the direct counselors of refugees/migrants. They will not come to your activity after they have first heard about it. It could take several times of reminding until

the first participants appear. If they liked it, it will happen that they bring friends and relatives.

Be patient with meetings starting or ending late. This could be for various reasons, e.g. the clients may be not very punctual and/or may have a flexible understanding of time, or they need to pray at a specific time, or they are having courses to attend, children to care for, or they are suffering from a trauma... If you work with a group in the camp where the clients live, the clients may not be coming back from the break in time (or may not come back at all). We recommend to prepare snacks and drinks for the break, and to work with the people in a room outside of the camp.

- Be aware of the field

Know the fact that the staff of NGOs specialized in asylum/migration work in a specific field of tension. They see a lot of suffering, as their clients are mostly traumatized and are in very difficult situations; the political attitude towards asylum/migration is mostly not supportive; the personal and material resources are short; the social attitude towards asylum/migration is also mostly not supportive.

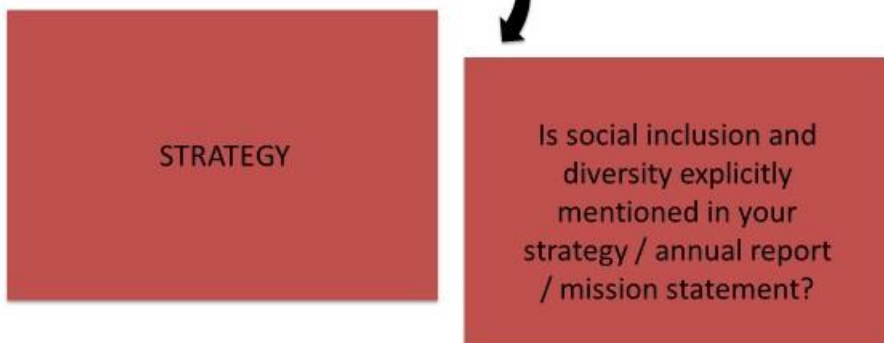
This field is very difficult to cope with, and sometimes they will not have room for your activities, because they have to focus on the basic needs of clients first.

A self evaluation tool

Start by getting into groups.

You need a set of cards and dots in same colors as the cards.

A SET OF CARDS TO HELP YOU PLACE YOUR DOTS



Select one card in the group

Read what's on it and decide individually where it should be on the awareness/practices map

Discuss with the rest of the group. Did you put the dots near each other? Do you think differently about this particular issue? can you understand each other?

PLACE YOUR STICKY 5 DOTS



(+) AWARNESS

ACCESS

STRATEGY

PARTNERSHIP

STAFF

CONTENT

(-) PRACTICES



(+) PRACTICES



(-) AWARNESS

<p>Is social inclusion and diversity explicitly mentioned in your strategy / annual report / mission statement?</p>	<p>STRATEGY</p> <p>Institutional governanace, selfunderstanding of an institution</p>
<p>Does your board / advisory committee / trustee include representative of minorities?</p>	<p>STRATEGY</p> <p>Institutional governanace, selfunderstanding of an institution</p>
<p>Does your institution include in the planning and programming diverse audiences and/or their representatives?</p>	<p>STRATEGY</p> <p>Institutional governanace, selfunderstanding of an institution</p>

<p>Does your institution directly aim to create a more inclusive society (tolerance, openness, etc.)?</p>	<p>STRATEGY</p> <p>Institutional governanace, selfunderstanding of an institution</p>
<p>Does your staff reflect the diversity of the society you live in?</p>	<p>STAFF composition and training</p>
<p>Is social inclusion treated in the training of the staff?</p>	<p>STAFF composition and training</p>

<p>Is social inclusion and diversity a shared responsibility within your institution?</p>	<p>STAFF composition and training</p>
<p>Do you have open discussion on stereotypes / diversities / minorities within the team?</p>	<p>STAFF composition and training</p>
<p>Does your institution analyze who participated in different activities and analyze why others did not?</p>	<p>ACCESS Location, information, settings</p>

<p>Does your institution eliminate or limit symbolic and/or socioeconomics barriers (eg. price, transportation, location, handicap friendly...)</p>	<p>ACCESS Location, information, settings</p>
<p>Does your institution commit to create and to reinforce safe and inclusive spaces for averyone?</p>	<p>ACCESS Location, information, settings</p>
<p>Does your institution provide document in alternative format or languages?</p>	<p>ACCESS Location, information, settings</p>

<p>Does your institution maintain a long-term relationship with a diversity of partners after the duration of a program?</p>	<p>PARTNERSHIPS</p> <p>Collaboration and networking outside the institution</p>
<p>Does your institution evaluate if and how the diversity of partnerships is an opportunity for your projects?</p>	<p>PARTNERSHIPS</p> <p>Collaboration and networking outside the institution</p>
<p>Does your institution adapt programs/ exhibitions in order to establish diverse partnerships? (or What comes first: the program or the partnerships)?</p>	<p>PARTNERSHIPS</p> <p>Collaboration and networking outside the institution</p>

<p>Are your local communities or their representatives informed that your institution wants to address a diverse audience?</p>	<p>PARTNERSHIPS</p> <p>Collaboration and networking outside the institution</p>
<p>Does your institution choose to Does your institution choose topics in order to be interesting/ relevant for a variety of people?</p>	<p>CONTENT</p> <p>Programs, exhibitions, development of activities and facilitation</p>
<p>Is there a place OR a person to address imbalances/ or inclusiveness of programs?</p>	<p>CONTENT</p> <p>Programs, exhibitions, development of activities and facilitation</p>

<p>Does your institution make sure that multipliers (parents, teachers, neighborhoods...) knows about your activities?</p>	<p>CONTENT Programs, exhibitions, development of activities and facilitation</p>
<p>Is your institutions programs co-created with representatives of divers audiences OR with people who know them well?</p>	<p>CONTENT Programs, exhibitions, development of activities and facilitation</p>

Intercultural mission statement

We recommend that you as an institution first do the survey above and then agree to an appropriate mission statement suitable to your particular workplace. Here follow some examples of missions statement in different institutions and organizations:

“Diversity is a process in which we at ... are open, see opportunities and value differences and similarities among ourselves and our local and global surroundings”.

Navet Science Center, Sweden

“The American Museum of Natural History is a global institution in one of the most diverse cities in the world. We are committed to building and sustaining a diverse and inclusive community, including addressing barriers to full inclusion of historically underrepresented groups. Recognizing that multiple voices and perspectives enrich our work, we embrace a broad definition of diversity and are dedicated to ensuring an environment where differences are valued and respected and where all members of our community are full and engaged participants in our mission”.

American Museum of Natural History

“UNC Morehead Planetarium and Science Center believes it is essential to create inclusive environments and empower people who have unique perspectives. By embracing our collective similarities and differences, we enrich the quality and scope of our service to North Carolina and beyond”.

Morehead Planetarium + Science Center

“Carnegie Science Center understands, respects and values physical, cultural, economic and social differences among our visitors and staff”.

Carnegie Science Center

Conclusion

Intercultural dialogue is nothing that one has, does or gives: it is something that arises between people.

We as an institution can work as a venue where intercultural dialogue can emerge. A dialogue or a conversation is a demanding process which requires one to be aware of one's own preconceptions and being responsive to others. It requires empathy, a change in perspective and the ability to see circumstances from another person's point of view. It also requires openness and a will to transform the preconceptions of both sides into objects of criticism. Science, culture and art have to promote and encourage such characteristics, competences and skills and create possibilities for people to participate in dialogical processes. Throughout this project we have found that science centers and museums can work very well as arenas where such dialogues can happen, but only if we are aware of which intercultural competences we have to develop and advance or enhance.¹

¹ Interkulturell dialog, teori och praktik. Rasoul Nejadmehr (red.)

PISEA Project Partners

Coordinator:

ScienceCenter-Netzwerk – Austria

www.science-center-net.at/

ScienceCenter
NETZWERK

Partners:

Ellinogermaniki Agogi SA – Greece

www.ea.gr

 ELLINOGERMANIKI
AGOGI

NAVET – Sweden

www.navet.com/



TRACES – France

www.groupe-traces.fr

TRACES

Fondazione IDIS – Città della Scienza – Italy

www.cittadellascienza.it



Caritas – Austria

<https://www.caritas-wien.at/>

Caritas

Impresum:

Responsible for the content:

Vasso Siameti and Fedoua Beckerman

Project website: www.pisea.eu



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