Operational good practices for inclusive outreach activities

Astronomy for Equity and Inclusion Executive Committee working group - Inclusive Outreach (Inspiring Stars) subWorkgroup

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1 Introduction

Organizing astronomy-related events accessible to all people, with special reference to those with disability, requires skills that are not always familiar to those involved in astronomy outreach.

As a general consideration, an accessible event or activity is not an event designed exclusively for people with disabilities, but rather one that can be enjoyed by all. It is not meant to simply overcome or knock down architectural or perceptual barriers, but to ultimately eliminate those cultural and communication barriers and prejudices that often prevent or limit people with sensory, motor or intellectual disabilities from participating fully in the event, alongside other people.

Creating an accessible event means first developing know-how for accessibility, and then designing and putting in place practical, logistical and communications elements to meet the needs of all types of audience: for example, planning for mobile ramps, lifts, lifting platforms, etc.; choosing counters and fittings at a comfortable height for wheelchair guests; using different communications methods simultaneously (text / image, text / voice solutions, etc.). It means giving people with disabilities the possibility of moving and using the spaces and services autonomously, without relying on assistance from others.

Experience can be built little by little, and, more importantly, can be shared to help others get started and learn faster. For those interested in adopting inclusive practices in their outreach activities, this document gathers practical guidelines on arranging and leading events and activities that are accessible to people with sensory (visual and auditory), motor and cognitive disabilities. These good practices are the result of practical experience of members for the *IAU Inclusive Outreach subWorkgroup* of the *Astronomy for Equity and Inclusion Executive Committee working group* and are made publicly available to all.

The goal is not just to encourage the organization of sporadic, inclusive events, but to ultimately change the overall perspective and make all science -related activity, especially in astronomy, equally accessible and inclusive for all.

Comments and contributions are always welcome at iau-inclusion@uai.it

2 General suggestions

This section gives some general suggestions about organizing an event that is inclusive from all perspectives and considers diversity from cultural, gender and disability points of view. Not all suggestions may apply to your event, depending on its size and other characteristics.

2.1 Planning and Promoting Your Event

2.1.1 Language

- Consider using gender neutral language, where appropriate.

- Consider the language used in your event. Could there be interested participants who would benefit from communication in another language?
- Where appropriate, consider producing information about your event in large font print, Braille, audio formats or simple English.

2.1.2 Advertising Your Event

- Consider the most effective ways to publicize your event online and offline. Social media posts, local news coverage on TV or radio or in newspapers, and fliers placed in community spaces such as libraries or schools will likely reach different audiences. Consider what combination of communication channels will work best to reach your target audience.
- Be mindful that some online content, including Facebook, Twitter, and some websites, may be difficult to access by visually-impaired users. Make sure online information about your event is easily read by Non-Visual Desktop Access (NVDA) and Text-to-Voice software.

2.1.3 Event Registration

- Will your event charge a registration or participation fee? Keep costs as low as possible and consider providing fee waivers, discounts, or scholarships for students and underrepresented groups.
- Consider having registration available in multiple formats such as online, by phone or text, and on paper.
- If your event requires registration or signing up, provide a place for people to submit accessibility and dietary needs, where relevant.

2.2 Location and Accessibility

2.2.1 General accessibility and safety

- Identify emergency exits beforehand, inform participants of their locations, and have them clearly marked.
- Where applicable, know the appropriate phone numbers for venue staff, security, janitors, your local police, and emergency medical teams.
- Is your event in a venue that is safe for women, children, and racial, ethnic, and sexual minorities?
- Could a blind or wheelchair-using participant access the space independently? If not, consider having volunteers on site to assist.
- Is there a Hearing Assistance system in your venue? Can individuals with hearing aids access the appropriate technology to facilitate their full participation?
- If resources and budget allow, could you provide sign language interpreters for your event?
- Are there chairs, benches, or other places to sit?
- Will free drinking water be available?
- Will free food or snacks be available?

2.2.2 Wheelchair accessibility

- Is the venue or location accessible for wheelchair users and individuals with limited mobility? Identify the location of ramps and elevators ahead of time and make sure accessible routes are clearly marked with signs.
- Are there accessible bathrooms on location? Make sure these are clearly marked.
- If your venue has seating, or if you will set up chairs, insure a minimum of 95cm (38 inches) between aisles for wheelchair accessibility.
- Make sure wheelchair accessible seats have full view of the event. Avoid clustering wheelchair users into a "disability section" at the back of the venue.

2.2.3 Accessibility for individuals with service animals or guide dogs

- Plan ahead for participants arriving with a service animal or emotional support animal. For example, designate an area for service dogs and have water bowls available.
- Make sure your event complies with service animal laws in your country or region.

2.2.4 How will participants get there?

- Locations that are only reachable by car may be inaccessible to those who use public transportation. Conversely, locations that are difficult to access by car may pose a challenge to individuals who must travel by car for safety or accessibility reasons.
- Identify the closest accessible parking places and accessible public transportation stops with escalators or elevators and inform participants ahead of time.
- Events that are only accessible on foot or that require significant walking or climbing stairs may not be accessible to children, elderly folks, or individuals with limited mobility.
- If your event is difficult for some to access, consider providing transportation for those who need it or volunteers to help individuals navigate the space.

2.2.5 What time of day is it taking place?

- Events that take place late at night may not be suitable for children or people who must get up early the following day for work or school.
- Certain groups, including women and children, and those traveling by public transportation may not feel safe or have access to transportation following late night events. Consider providing transportation, or holding events within daylight hours or while public transportation is still running.
- Events that take place at a time when children are picked up from school may be difficult for parents to attend. Consider holding your event outside of common work and school hours.

2.3 Running Your Event

2.3.1 Speakers and presentations

- If your event includes speakers, panels, or audience participation, use microphones. Require speakers and audience members to use microphones even if they personally prefer not to, as this will ensure all can hear and participate.
- If your event provides a podium for speakers, have options available that do not require standing.
- Ensure speakers are well-lit if your event is in a dark or dimly lit space (such as in a planetarium, theatre, or nighttime observing event). Individuals who rely on lip-reading to understand speakers must be able to clearly see the speaker's face. The same follows for sign language interpreters.
- If your event includes presentations or slides, encourage speakers to describe images and figures verbally even if descriptions are on the slides, as this will aid those with visual impairments. Consider having printed versions of slides available for the audience to read.
- Avoid slides with white backgrounds in favor of light grey, off-white, or dark colors with high-contrast text in a suitably large font - this will be better for light sensitive and migraine-prone audience members. Avoid italics and use common sans-serif fonts as these are easier to read.
- Make sure any colorful content, such as posters and slides, are clear and understandable to color-blind individuals.

2.3.2 Event schedules, seating, and accessibility

- Reserve seating at the front of the venue for individuals with visual and hearing impairments. If your event includes interpreters, make sure they are situated in high-visibility locations and not off to the side, far from the speakers or projectors.

- Be mindful of how long your event(s) will run. Will there be scheduled breaks with enough time to use the restroom and access food and water? Keep in mind that long talks or sessions packed back-to-back may strain audience members who would benefit from an opportunity to stretch their legs or rest.
- If your event includes signs or posters, be mindful of the font size and height at which they are raised. Consider that children and wheelchair users may have difficulty reading materials hung at a high height.

2.3.3 Event content and appropriate warnings

- If your event may touch upon potentially sensitive subjects, such as dealing with racism, sexism, harassment, and other forms of discrimination, as well as politics or sensitive events in history, think about the appropriate content warnings or trigger warnings. Err on the side of caution - if you are unsure if a topic might be sensitive, go ahead and mention it. It is better to provide extra warning than too little. Even if a particular issue may not seem sensitive to you, it may be to others. It is best to consult a diverse group of individuals to fully assess the content of your event. Read more about common triggers and how to communicate them.
- Warn the audience if any material, such as videos or images, may be hazardous for those with epilepsy or migraine.

2.3.4 Atmosphere and sensitivity

- Be mindful that some activities or programming might cause "sensory overload" for some participants, including loud music, bright images, flashing videos, or a combination of sounds, visuals, and movements. Have a quiet space where participants can go to decompress if they feel overwhelmed. This is critical for individuals on the autism spectrum and for young children.
- Run a scent- and smell-free event. Discourage participants from wearing perfumes, colognes, or scented deodorants. Avoid venues or rooms that smell of cleaning fluids. This will make your event friendly to individuals with allergies or who are prone to migraines.

2.3.5 Diversity, inclusion, safety, and harassment

- Pay attention to diversity when inviting speakers. Do not organize all-male panels and speakers. Make a concerted effort to invite minority women, indigenous, and disabled scientists and community members. If you do not know any, reach out to your network or consider contacting us for shortlists of potential speakers. There are many diverse scientists and astronomers committed to inclusive astronomy. Ensuring that diversity is reflected in your event(s) is not difficult.
- Establish safety and harassment policies before your event begins and inform volunteers and participants. If an incident occurs, have sensitive, trained individuals available to respond and inform participants to whom they may go to report an incident. Encourage transparency in communication both with the affected parties and all participants at your event.

3 Disability-specific considerations

This chapter provides more detailed operational good practices for each specific disability.

3.1 Visual disability

3.1.1 Planning activities

- Clearly define the topic and communication strategy using the method and approach typical of each outreach event. For a real transfer of knowledge to succeed it is important to involve the audience emotionally. In public outreach events it is more important to understand "how" to say

something than "what" – quoting Galileo Galilei: «Good teaching is one-fourth preparation and three-fourths good theatre».

- Complement explanations and image descriptions with as many tactile elements as possible. Identify the logical steps that require the use of tactile support along with wording. In the explanation, tactile tools would replace images and videos which are normally used for the sighted. Identify support tools that engage and maintain the audience's interest.

- Avoid forcing concepts. Not all phenomena are accessible by touch. When it is not possible to make a tactile tool, however, a careful verbal explanation is needed to explain what cannot be touched.

- Aim at the creation of 3D tools, or even better 4D (i.e., moving) to show the evolution of the phenomenon over time. Only after having provided a 3D image of a phenomenon and its evolution in time, it is possible to take a step back and study its details in 2D as well. Avoid flat models for explaining complex astronomical phenomena.

- Always build a well-structured and clear didactic path. You must organize your speech by avoiding "jumping" from one detail, a subject, or image to another without joining them via a solid logical thread.

- Rehearse your demonstration several times and select the simplest and most effective path to follow, making the sequence of speech and tactile exploration fluid. Rehearse the lesson with your collaborators to build everyone's confidence with the instrumentation in use. Work out the timing and methods of presentation with your collaborators. Avoid overlapping multiple voices and explanations during the lesson. Identify one speaker who will be in charge and will pause the lesson to answer questions from the audience as needed. When tactile exploration is needed, other staff members should only guide the hands of the participants while following the speaker's speech. This is essential to avoid creating confusion from overlapping voices.

- Evaluate the maximum number of participants depending on the environment and the number of staff members available. Small classes (e.g., 4-5 participants, up to 8) are preferred to avoid confusion and guarantee a high quality lesson. Provide multiple copies of tactile tools to reduce waiting time.

3.1.2 Conducting the event

- Keep in mind that touch, like sight, is one potential tool to explore and learn the environment, yet these two senses operate along different paths. The typical "at a glance" perception of the sighted person does not have a counterpart in tactile exploration ("*haptic perception*"). Therefore, when presenting a tactile tool, it is good practice to first provide a quick overview of the whole; the image can then be assembled by combining the details acquired through haptic perception. An explanation of a tactile tool or phenomenon must follow this path. For people who have been blind from birth, the details come first, especially if they are not well educated in the appropriate use of touch. Using hands to quickly touch the whole instrument does not lead to understanding, but rather causes confusion. People with acquired blindness and visually impaired people, on the other hand, are more often accustomed to taking a "global glance" first, as is typical of sighted individuals. It is necessary to be ready to adapt the didactic path by rebalancing the time spent on each of the two phases: deductive and inductive. However, an initial overview remains indispensable for guiding and setting the limits of the mental image that is being formed.

- Repeat previously presented concepts and details several times to insure that the message has been properly understood, and to reinforce the image that is being formed from the details.

- During the tactile exploration of a tool, avoid references to generic spatial directions (such as "here" "there"). Rather, refer to topological concepts, such has: "to the right", "2 meters ahead", "on your left hand", "at 03:00 o'clock", etc.: in this way, the movement of a blind person's hands can be directed verbally.

- Exploit, where possible, a multisensory approach, not just using touch, but also including hearing. In addition to tactile exploration, also exploit the physical engagement of each participant. Use the body and body movements to strengthen concepts (e.g.: motion of the planets, apparent motion of celestial objects in the sky, etc.).
- Put yourself in the shoes of those who must understand concepts using modalities different from your own. Different disabilities require accommodating different modalities and different timing using different outreach methods and mental paths.
- Remember that, especially for those blind from birth, concepts taken for granted by the sighted can be a source of misunderstandings (e.g.: horizon, shadow, perspective, etc.). In your explanation, consider the time required to deal with such concepts adequately, and do all you can to provide access to tactile support tools for help.
- Pay attention to how the participants' hands are guided when using tactile tools. Always act with the greatest delicacy possible. Warn verbally or by gently touching hands about your intention to bring the other person's hands to a certain place. During explanations, avoid unexpectedly withdrawing your hands from the hands of a blind person without verbal explanation.
- Avoid treating a person with disabilities like a child by touching and caressing him/her repeatedly. Respect the sexuality of the blind person. Pay attention to the type of touch used to lead the person's hands, avoiding misunderstandings: the touch used to lead is a delicate touch, with the fingertips, not heavy or intrusive.
- By all means avoid addressing the blind person's assistant instead of talking directly to the blind person, for example, by saying "Should we seat him/her here...?" or "Should we let him/her touch this instrument?" Address the blind person directly.

3.1.3   Design and manufacture of tactile tools

- Search online for solutions that may have already been invented and implemented by others. Avoid starting from scratch, reinventing things that already exist. Look for ways to improve existing solutions.
- Simplify the idea to focus only on the primary objective of the tool.
- When designing a tool, investigate all the mechanical / electronic / economic issues that may arise and make the realization of that tool impossible.
- During the design phase, involve experts for specific aspects as needed, as well as blind people, as "co-designers".
- Identify the most effective production method (home-made mechanical construction, 3D printing, laser cutting, etc.). Different materials provide different tactile stimuli and emotional sensations. Carefully choose the material to be used, as textures are like colors for blind people; just as sighted people would not accept an explanatory picture with fuchsia and green polka-dotted clouds, a tactile tool with hard- or sharp-edged clouds would be unacceptable.
- Use different materials and textures to distinguish different areas of the instrument.
- Test prototypes with visually impaired people and experts in typhlology (the science of blindness and the care of blind people).
- Include Braille descriptions on the object to allow both blind and visually impaired people to read them. Braille reading reinforces memorization of learned concepts. For those not adept at reading Braille, consider new smartphone-based technologies to assist in, and simplify, reading, such as QRcode texts, NFC, etc.
- Document the creation and use of the new instrument by writing down technical notes and attaching explanatory photos and videos.

3.1.4 Logistics and organization of events for people with visual disabilities:

- Seek collaboration from a BVI association, if possible, to ensure the necessary assistance for participants throughout the event, particularly during travel and transport.
- Look for as quiet an environment as possible. Also ensure that it is clear of objects and other obstacles in the walkways to allow participants to move about independently.
- Plan for guide dogs to be present at the event.
- Before the event, gather information about special needs from each participant. Sometimes participants may have disabilities other than visual that need to be considered when planning the event.
- If this is your first time organizing an event, consult early with experts from local or national BVI associations.

3.2 Hearing disability

This section provides useful information for those interested in organizing accessible and inclusive events with the presence of hearing-impaired people.

3.2.1 Activity planning

- Always include sign language interpreters. This expense should be considered a fundamental item in the event budget. Plan for more than one interpreter for events lasting more than 60 minutes.
- Often, astronomy terms are not part of the sign language dictionary. The interpreter therefore needs to be involved as early as possible to agree on the terminology that will be used. The language and any support text that will be used at the event must be adapted to terms that are easy to understand and to translate.
- The pace for sign language communication is slower than speaking. This should be considered in arranging for presenters and in planning the event schedule. Particular attention is needed when visual content (image or video) is explained, in which case deaf people need to look alternatively at the text (or interpreter) and the visual contents to capture both audio and visual information. The same applies when observing the sky. Presentations must be planned with necessary pauses to allow for visual content to be observed.
- If particular sounds are an important part of the presentation, use balloons (inflated with helium, if possible) to produce a tactile perception of the sound through the membrane of the balloon itself, or translate the sounds using a spectrogram (a good free tool for this is Sonic Visualizer; www.sonicvisualiser.org/).
- Although lights are usually banned during astronomy activities outdoors at night, spotlights are needed to light a speaker (for lipreading), and a sign language interpreter.

3.2.2 Conducting the event

- Coordinate the speaker's verbal explanation with its translation into sign language using visual media (images, videos, laser pointers during outdoor night sky watching or in planetariums).
- Frequently check the alignment of verbal speech and sign language translation, and be prepared to slow down or stop when necessary.
- Give sufficient time for definitions of new symbols and explanations of new terminology.
- At the beginning of the event, inform everyone of the meaning of any non-standard warning lights (especially hazard warning lights).

3.2.3 Logistics and organization of events of events for people with hearing disabilities

- Although lights are usually banned during astronomy activities outdoors at night, spotlights are needed to light a speaker (for lipreading), and a sign language interpreter.

- Plan an effective emergency alert system based on visual elements (lights, screens), as traditional sounds used to alert and give indications of dangers are not effective for the hearing disabled.

3.3   Motor disabilities

This type of disability includes all cases of reduced and limited mobility function. In addition to the general advice given in chapter 1, this section focuses on plan for direct telescope observations by visitors in wheelchairs and access to observatory facilities.

3.3.1   Activity planning

- Get acquainted with wheelchair types, paying particular attention to the size and height of the observer's eye (typical eye height ranges 90-130 cm from the ground).
- Get acquainted with the problems of wheelchair observation with different telescope models that might require changing the angle of the eyepiece for observing various objects, types of mountings and how each hinders wheelchair access, etc. In general, the simplest approach is to use catadioptric telescopes (e.g.: Schmidt-Cassegrain) on an altazimuth mount, with appropriate eyepiece extensions.
- Allow time for optical extensions and/or modifications to the telescope mount to be made to allow the eyepiece to be reached even by wheelchair users.
- Test the setup with some volunteers in wheelchairs in advance of public events.
- Select a list of astronomical objects to observe and record their position in the sky at the time of observation. This information is useful in setting up the telescopes and determining the best sequence for observations.

3.3.2   Use of telescopes with optical extension

- Position the telescope tripod so that the wheelchair can stand next to two legs during observation, as appropriate, depending on the object to be observed.
- Adjust the tripod height according to the position of the objects to be observed, so that the eyepiece is at the correct height.
- When planning a schedule, consider that each observation will require more time to allow for movement of wheelchairs and adjustments that might be needed in eyepiece position and extensions.
- Keep in mind that the focal length of the telescope generally increases due to the extensions, thereby reducing the field of view, which can make framing a large object such as the 30' full disk Moon or Sun a difficult task with a focal length of 2000 mm.
- Please note that some people in wheelchairs cannot move their head and neck, so the eyepiece must be at the precise position needed for them to observe.
- Alignment corrections should be performed using the finder or other methods to limit movement required of the wheelchair. A diagonal finder aligned precisely with the telescope and experience with an instrument of this type are very useful for this purpose.
- Should the eyepiece extension be changed, the focus could change a lot as well. To simplify this operation, determine and memorize the number turns of the focuser knob necessary to refocus for each extension change. It is helpful to mark the position of the focuser with some reference, such as a small pin, on the focuser knob to enable counting the turns accurately.
- Experience observing with the telescope is necessary to be able to recover quickly from a loss of focus or tripod movement with limited access to the eyepiece.
- Considering the points above, it is helpful to prepare a schedule of objects to be observed in sequence and their positions at the scheduled observing time.

- Because the telescope, with extensions in place, can also be used by people not restricted to wheelchairs it is best not to have separate queues at the telescopes, in the spirit of inclusion.
- If children in wheelchairs are expected to join the event, it may be necessary to have at least one telescope setup for them, as the eyepiece height would usually be lower. The same telescope can be used by both children in wheelchairs and those who are standing.
- Operating in dim light, or in the dark, requires getting familiar with the location during the daytime in order to be able to maneuver wheelchairs in the dark.

3.3.3   Logistics and organization of events for people with motor disabilities

- The site must be flat, with suitable flooring, in order to be accessible to wheelchairs (e.g. no pebbles, crushed stones, sand or holes).
- Parking must be suitable for wheelchair users and be easily accessible from the telescopes.
- Lighting must be suitable for wheelchair movement without interfering with observations.
- Safety must always be on the operator's mind; watching for movement and keeping track of the wheelchair's position relative to other observers, the instruments, and the eyepiece must always be a priority.
- Toilets must be suitable for wheelchair users.
- Consider liability insurance for visitors, often available at an affordable cost.

3.4   Intellectual disabilities

For the purpose of this document, the terms "intellectual disability" and "cognitive disability" refer to all conditions in which there are deficits in cognitive or intellectual areas. There are two fundamental aspects of communication to consider when organizing inclusive astronomy related events for those with intellectual or cognitive disabilities:

1. the individual's ability to communicate a state or need.

2. the interlocutor's understanding of the information through the communication channel used.

In this way, operators become communication facilitators, i.e. they take care of facilitating the participation of people who have different operating modes in their relationships with others due to differences in cognitive or intellectual function.

3.4.1   Activity planning

Some important points to keep in mind with respect to the operator's role in relating to people with cognitive or intellectual difficulties (henceforth "user") are:

- Determine the user's method of communication. Assess whether the user communicates differently from what the operator might expect him/her to. For example, the user may communicate using single words to request what he/she wants, use specific terms to name objects or actions, or be unclear when spelling words. Understanding this will aid in establishing effective communication between the user and the operator.
- When interacting with the user, include any companions the user may be accompanied by (relatives, friends, specialist assistance, etc.) as they may have a supporting role in assisting logistically or emotionally. These companions may provide useful information for communication and interaction, and may be critical for the user's participation, especially if the user is a child or teen. They can also provide useful information to allow the operator implement whatever steps the user may need for facilitated participation.
- Determine if the user utilizes communications tools, including technological ones, and evaluate options for integrating them into the presentation various activities. Consider researching and

implementing different presentation methods ahead of time that might be used in order to avoid incompatibilities. Tips for the operators can be useful to in preparing them for adapting the activities for these users.

- Before presenting a user with a stimulus (e.g., watching a video, audio description of actions or images, use of touch to explore objects) through a selected sensory channel, it is the operator's responsibility to ensure that the selected presentation mode is easy for the user to understand. Presenting the same activity in different ways can also be considered.
- Plan for the possibility of interrupting the activity or allowing the user to leave. A negative experience can condition the user negatively not only for that event but for later events with similar activities.
- Evaluate the user's motivation and the length of time the user may be able to participate in the activities. The duration of the activities, in fact, could be a important factor, as the user may have difficulty maintaining attention or experience a decrease in motivation for remaining in the activity. If this might be the case, having a plan to change activities or move the location to continue, or even to the user's participation in the event.
- Plan the activities in close collaboration with experts on these special needs users and the accommodations they require. Strictly follow the experts' instructions without improvising.
- Always request supervision by the staff of organizations that are in regular contact with users. <u>Do not conduct activities with intellectually or cognitively disabled people without the presence of expert personnel</u>.
- During planning, create a preliminary event evaluation, putting in writing will take care of the users. Also, always consider whether amateurs are required for any special activities.
- During planning, also create a document specifying the target audience of conference talks, i.e., whether the event is intended only for "cognitive able-bodied" people or experts and facility users. This will avoid risking complaints that the conference was too difficult for users or too "boring" for guests.

3.4.2 Conducting the event
- Establish a relational context with users before any experience.
- Use simple language, remembering that symbolic language and humorous or ironic aspects may not be understood correctly.
- Take care to avoid unexpected external stimuli (sudden noises and lights).
- Don't expect to involve all participants at once; everyone has their own engagement time and methods.
- Speak slowly and clearly, carefully articulating words, take breaks to allow users time to process the information.
- Accompany verbal explanations with simple gestures.
- Have neurotypical children work and interact with the cognitively disabled children.
- Produce tangible results by integrating the production of drawings, materials, and objects that the group or class can keep.

3.4.3 Educational goals:
- It should be noted that, particularly for this type of disability, organized activities can have a strong educational value, rather than simply an outreach aspect. Astronomy can become the tool used to reduce the effects of different types of disorders that affect the lives of these individuals,

maximizing the potential of individual users in a real therapeutic process on a par with activities such as pet-therapy:

- Improve communication skills through activities carried out in small groups;
- Improve social skills through interventions focused on relationships, reciprocity, and social games where it is important to share rules and objectives, and respect each others turns to participate;
- Improve behavior by increasing young people's ability to adapt to new things, and promote good behavior in interacting with others;
- Some objectives and educational activities using astronomy include:
- Increased ability to relation to others. Educational activities: drawing of planets, drawing of galaxies, nebulae of our Universe, construction of models of galaxies, planets, Moon, etc.
- Improvement of physical coordination using specific instruments such as telescopes, astronomical instrument construction, sundials, etc.
- Learning to respect simple rules and group dynamics though social games.
- Greater opportunities for relationships and emotional enrichment for the disabled and for the able-bodied children within their school classes.

4   Additional resources

- Specific and more extensive good practices for various aspects of inclusion can be found on the IAU Astronomy for Equity and Inclusion website at iau-oao.nao.ac.jp/iau-inclusion/good-practices/
- For more resources, such as instructions for tools and activities, as well as community contacts, refer to the IAU Astronomy for Equity and Inclusion website (iau-oao.nao.ac.jp/iau-inclusion)

5   References

1. International Astronomical Union: *Running an Accessible and Inclusive Event* (www.inclusiveastronomy.org/running-an-event Accessed on February 5th, 2021)
2. Unione Astrofili Italiani – Divulgazione Inclusiva National Program: *Good practices for astronomy inclusive outreach activities* (www.uai.it/stellepertutti/good-practices-for-astronomy-inclusive-outreach-activities/ Accessed on February 5th, 2021)