Chapter 6

The ESD programme officer in Biosphere Reserves and other designated areas

Chapter 6

The ESD programme officer in Biosphere Reserves and other designated areas

6.1 Introduction

Main objective of ESD programmes is to strengthen learners' knowledge and reinforce their commitment towards sustainable development. These objectives can be achieved through real-life experiences that help learners understand the various pressures put upon the designated areas, by social and economic drivers.

Admittedly, visits of schools or other groups in a BR or designated area do not always achieve the desired results in terms of information and awareness, and there are cases when they have negative impacts on the areas. For example, visitors' appearance and behaviour in a forest (loud conversations, noises, clothes with bright colours, etc.) may cause annoyance to the living organisms and degrade their inhabitants. Furthermore, without the consent and cooperation of the local populations in realising these visits, there may be negative reactions to the presence of regular visitors in the area.

For all these reasons, visits must be well prepared in advance, to take place under the sole responsibility and in the presence of specialized educators, the so-called **ESD educators**, with appropriate training and skills. Members of Management Bodies of PAs, of Information Centres or ESD Centres, with the appropriate training can help in this direction.

The cooperation of the various bodies, which are involved in the protection of sensitive areas and habitats, is very important in the development of educational programmes.

1. *Cité des Sciences et de l'Industrie*, Children's city, popularization of sciences, Paris
© UNESCO/ Dominique Roger

A characteristic example that may depict the potential of such cooperation is the tracing of proper 'educational paths' with environmental and cultural interests, relating to the aims of the programme and the characteristics of the target group (e.g. age, kinetic (dis)abilities, etc.). When designing such paths parameters like the anticipated duration of a visit, the weather conditions, the safety precautions, the age and the skills of visitors should be taken into account.

The educators, who are responsible for the guidance and introduction of the visitors in protected areas, are often called "guides", "coordinators" or "environmental interpreters". To begin with, the ESD educator must have an in-depth knowledge of the rationale and execution steps of the designed educational interventions, whether these refer to schools or other groups' visits.

In general, elements of the ESD educator's personality including the way he/she conceives concepts like desire to participate and expectations within group work, his/her feelings and worldview, how receptive he/she is towards innovations in education, the pros and cons of his/her character influence significantly the dynamic and the outcome of the activities performed within an ESD programme. The key requested characteristics, skills and training for such an officer are presented in the following paragraphs.

6.2. The competences of the educator, designer, interpretor

Within ESD the role of the educator is very distinct and important for the success of any educational programme. In designated areas in particular, it is also expected that the educator has the skills of a tour guide who, within a relatively short period of time, is required to help visitors to "interpret" the natural environment, to stimulate reflection on complex concepts such as ecosystems functioning, biodiversity protection, sustainable management.

The ESD educator must inform visitors about the areas' natural and cultural features, so that their behaviors are appropriate. They must use a variety of tools and techniques in order to "translate" the scientific knowledge and stimulate visitors, individually and as a group, to discover elements of the areas' environment and to understand related concepts in a simple and easily understood manner.

2

3

5

4

2. Folklore in the *Djerdap National Park*, Serbia
© Giorgio Andrian

3. Learning how to walk around a forest, ESD field visit in *Bourgogne*, France
© Ecole Steiner-Waldorf, Verrières-le-Buisson

4 and **5.** ESD educators in action, *Ecole Steiner-Waldorf*, *Verrières-le-Buisson*, France
© Hélène Gille

Communication skills, group building and coordination

Several problems may arise in communicating with the visitors, mainly due to the limited duration of an educational programme, or lack of prior sufficient explanation on the intended programme to the visitors. That is why, when introducing the ESD programme the educator must clarify both the schedule and his/her role within. Communication, negotiation and persuasion skills together with effectiveness are very important, in order to gain respect and consent to the behavioural safety rules when needed. In a programme's initial stage, activities to break the ice and build trust must be included, particularly when group members do not know each other (see paragraph 6.5).

Group setting, with clear and comprehensible objectives is one more task for the ESD educator. He/she should organise the space, the time and the activities of each group, guide the activities of the group members keeping in mind each one's uniqueness, direct and encourage their cooperative contribution, encourage them to ask questions. A good ESD educator is democratic and stimulates dialogue among group members. At the same time, he/she promotes sensitivity and cultivates the feeling of trust and safety, of belonging to the group and of having free choices.

Action from "backstage"

Following the introductory phase the ESD educator should leave the action to the participants and facilitate, wherever necessary, the smooth implementation of the programme. Although he/she constantly observes the situation and progression, he/she does not "dominate" or impose, but rather facilitates and guides. In other words, the educator creates an enabling environment for the group that inspires responsible behavior and collaboration. He/she is attentive to the group dynamic and supports participants in their effort to participate and solve problems.

Alert, prepared and flexible

An ESD educator needs to be constantly alert for the visitor's safety, the protection of the natural environment, the time management. He/she needs to be prepared to provide direct and effective assistance to members of the group when needed. At the same time, he/she observes all visitor actions and movements in order to prevent and deal with any "negative" outcomes or damage to the environment and its organisms. Finally, he/she foresees the necessary provisions to help ensure appropriate behavior in a reserve. For example: a) If he/she sees a bird's nest near a footpath where the group is about to pass, he must quietly change the route without disturbing the bird; b) If he/she sees small chicks on a water lily while the group is moving across a lake by boat, he/she must take care not to cause waves with the motor which can cause damage; c) If someone removes a rock and discovers an insect nest underneath, the rock must be returned to its place with care; d) In terms of safety, if the educator is aware of a team member who is allergic to pine pollen, he/she must re-direct the group from the initial path, avoiding the pine tree. In such situations he/she must explain the visitors what he/she is doing and why in order to transform his/her action in an awareness opportunity.

The value of the personal example

During a guided visit or an educational programme, the group's attention is mainly focused on their guide. The educator is constantly being judged on his capabilities, the accuracy of his/her words, the achievability of his proposals, the concerns he/she expresses about possible degradation and potential threat and finally on his/her affection for his/her work and care for the area. The educator is also judged on his integrity through the behaviour he/she displays, particularly if he/she acts fairly towards all team members and is friendly towards the environment. The educator must keep in mind that students and adult learners are looking at every detail of his/her actions and that his/her behaviour sets a "paradigm" to be followed.

Knowledge, competencies and adaptability

An ESD educator needs to:

• Have a good knowledge of the functions of a Biosphere Reserve, namely:

conservation: landscape, ecosystem services, species, etc;

development: economic and human activities, and those who practice them (i.e. organic farming, adapted forest management, ecotourism, handicrafts, traditional and cultural festivals);

logistic: the research and monitoring taking place for the area, campaigns, etc. as well as the management plan and the risks that the BR is threatened by.

• Take full advantage of available tools such as signs, boundaries, maps, leaflets, worksheets, posters and special routes, footpaths, exhibition spaces in Information Centres, museums etc.

• Adapt his/her methodology and content according to visitors' age and skills and to existing weather conditions. If it is raining, for example, and the weather does not permit walking in the field, the educator must foresee this possibility and either collect the appropriate material beforehand or have alternative solutions such as visual materials or other interpretation means in sheltered areas.

6

6. Bedouins and BR guide in a tent, *Dana BR*, Jordan
© Thomas Schaaf

7. SUMAMAD field visit, Planning Workshop, *Dana BR*, Jordan
© MB of the Dana Biosphere Reserve

8. BR guide presenting handicrafts, *Dana BR*, Jordan
© Thomas Schaaf

7 8

9

10

9. Child drawing, primary school, *La-Varenne Saint-Hilaire*, France
© UNESCO / D. Roger

10. Primary school pupils drawing for peace, *La-Varenne Saint-Hilaire*, France
© UNESCO / D. Roger

11. School chemistry laboratory, 7th grade, secondary school, Georgia
© UNESCO / ASPnet / Liko Chikhladze

11

The educator and the group

An ESD educator must undertake appropriate action in order to gain the group's trust but also to consolidate confidence among team members. The educator encourages the group to convey ideas into actions and to make decisions in order to:

- Create conditions conductive to feedback and active participation that will allow team members to take ownership of the programme.
- Ensure participants acknowledge that each person: a) has value and dignity, b) has the right to make their own decisions on issues that matter to them, and c) is responsible for his/her own way of life and choices (Brammer & Shostrom, 1982).
- Contribute to creating an atmosphere of familiarity through communication, interest and mutual respect.
- Develop responsibility for group members' actions and motivations as a whole.
- Cultivate spontaneity, acceptance (personal and interpersonal relationships) and adaptability to any changes and difficulties, so that potential crises and conflicts between team members are dealt with in a fair, friendly and respectful manner.

Awareness raising about birds

When referring to protection of bird habitats during incubation periods, one must distinguish between primary and secondary school students. Secondary school students understand concepts such as incubation, the condition of eggs during incubation, heat loss etc., much better than primary school students. Taking a more emotional approach with younger students may probably be a more effective way to develop their awareness – for example, explaining how adult birds may abandon their eggs and chicks because of the presence of visitors to the area.

The practice of "landscape interpretation" is generally informed by a broad, multi-disciplinary theoretical base with input from research in education, psychology, sociology, cultural studies and tourism. An ESD educator must be pedagogically competent and able to evaluate the educational approaches he/she applies. The educator must also be capable of designing and implementing a variety of projects using constructive and group-based approaches and techniques (read more in Chapter 8) and use a wide range of opportunities and means in order to meet the learning needs of each person (UNESCO, 1994).

The ESD educator is at the same time a facilitator, coordinator, tour guide and animator. The people in the groups he/she meets and works with may be similar to each other and they may not be. They may be comprised of young children or adults. As an animator, he/she needs to develop creative ways of expression and skills through relationships based on cooperation, initiative and mutual trust. In particular with adult groups, which are usually diverse, he/she must motivate them towards an objective while maintaining their active participation (Kokkos, 2003). Frey (2002) states that the educator does not lead but facilitates instead. He/she may combine several different methods of animating and "motivating" either children or adults so that they can discover the area using all their senses (Psallidas et al., 1999; Psallidas, 2003).

The educator's experience in terms of how a group is formed and how it works is decisive. In general, the dynamics and character of ESD activities are fundamentally affected by his/her personality.

In addition, the ESD educator must be well prepared and be able to deal with unexpected situations making the best of them, educationally and interpretively. Unexpected situations and occurrences are used by an experienced educator as an implicit part of his/her work in order to increase motivation and to stimulate questions from learners (UNESCO, 1994).

One learns in ones' own unique way

Today it is widely accepted that people learn in their own way. By using all their senses to gain information about the natural and human environment, they understand their surroundings in a unique and internalized way through their personal representation. It is important to remember the theory of multiple intelligences; Gardner (1999) proposed at least eight different types of intelligence (see paragraph 5.3), while Handly (1997) proposed eleven.

12. Observing the landscape, ESD field visit in *Bourgogne*, *Ecole Steiner-Waldorf*, *Verrières-le-Buisson*, France
© Hélène Gille

Landscape interpretation

A landscape is a "local environment", an area that from a great distance looks seemingly unchanged while up close on a microscopic level, it is in constant change. In relation to the environment, landscape is more restricted and specific. The use of the term "landscape" or at times "field" seems to be more accurate than using the term "environment". In a relatively short time, the educator along with the visitor through experiential activities, negotiation and utilization of all the senses, discover changing elements in relation to those that remain relatively unchanged and connect them, wherever possible, to broader phenomena. The educator is called upon to create opportunities for the BR's visitor to discover and observe the traces of these changes as well as to help interpret them. Essentially, the educator reveals the elements that mark the traces of change in the area. In this way, paths in space are transformed into paths in time. He/she tracks geological and bioclimatic changes and, just as trackers do, uses biological clues found in the environment. In other words, the educator is involved in analyzing history, society, architecture, monuments, museums and other elements in and around the reserve. Landscape history is a field that looks at the broader local history and includes in its study the description and interpretation of human interventions and imprints on the environment (Leontsinis, 1996). Visits to places of exceptional historic and environmental interest, such as traditional settlements, historical buildings, ports, hostels, train stations, castles, ancient communication networks, plantations that have been referenced in historic texts surviving until today, natural monuments, etc. all have particular educational significance because they provide learners with the opportunity to study distinct visual examples of human culture and a way to understand concepts of historical time and change (Leontsinis, 2003).

Within this context, the following relevant concepts are important: (a) geotopes: areas of exceptional geological-geomorphic interest presenting and representing important times in history and on earth and (b) geological heritage (Thodosiou et al., 2006). The environment is a source of knowledge; it is an outdoor laboratory where significant concepts such as adaptation, the food chain, energy transfer, plant and other organism development as well as the problems of erosion, eutrophication, overgrazing etc. are accessible through direct experience. Furthermore, the use of interpretation to influence visi-

13. Starting the field visit in *Bourgogne Ecole Steiner-Waldorf*, *Verrières-le-Buisson*, France
©Hélène Gille

14 and 15.
Walking up *Mount Sainte Victoire*, *Aix-en-Provence* region, France
©Hélène Gille

16 and **17.**
Approaching *Prieuré de Sainte Victoire* and *Croix de Provence*, *Aix-en-Provence* region, France
©Hélène Gille

13

14

15

16

17

18

19

18 and 19.
Thistle and cushion plants up the summit, *Mount Sainte Victoire*, *Aix-en-Provence* region
©Hélène Gille

20

21

20. On the hiking trail climbing *Mount Sainte Victoire*, *Aix-en-Provence* region, France
© Hélène Gille

21. Aleppo Pine (*Pinus halepensis*), walking up *Mount Sainte Victoire*, France
© Hélène Gille

24

22

23

22. Common sorrel (*Rumex acetosa*), southern *Auvergne*, France
© Hélène Gille

23. Yarrow (*Achillea millefolium*), southern *Auvergne*, France
© Hélène Gille

24. Brown knapweed (*Centaurea jacea*), southern *Auvergne*, France
© Hélène Gille

tor behavior in relation to their visit to a particular site is an important management tool with the capacity to reduce "unsustainable" behavior through education. While it is important to maintain this function, Ballantyne (2006) urges educators to extend their vision beyond the needs of the site itself to include "the development of an environmentally literate society". Interpretation which challenges visitors to examine their attitudes and the impact of their actions and lifestyles, and stimulates visitor's skills in identifying, analyzing, evaluating and applying solutions to issues related to the area and beyond can contribute to this ultimate goal.

Direct experience of the world

Actually, the experiential learning approaches are not in conflict with traditional educational approaches, as some may believe. They are, rather, complimentary relationships. A learner must be directly involved in the reality of what he/she is studying. This involves not only observing the subject but also its related activities. Learning is not an act of "observing" the world but it definitely includes "experiencing" it. In order to gain knowledge, learners must discuss the issue at hand, document, describe, listen, accept, disagree and express their emotions, experiences and opinions, form proposals, pose questions and objections and reflect about their own values and of others. In the end, a person must ask him/herself if he/she needs to change his/her own behaviour in order to be responsible towards the natural and social environment.

Last but not least, it is noteworthy to stress the fact that visitors of a BR or other designated areas (especially adult groups) are coming to enjoy themselves and to gain some information and knowledge as well, so that the ESD educator should get visitors interested in planned activities in an amusing way. This means that he/she has a sense of humor, and shows patience and respect towards visitors i.e. at times when they insist on asking him/her the same questions, or are hasty to move on.

The ESD Educator for Biosphere Reserves and Designated Areas

Duties

- Accompanying student or other groups of visitors in a BR/special designated area.
- Checking attendance of group members.
- Organizing group activities.
- Collecting information on the area's history, sites, customs and traditions.
- Undertaking all programme's logistics e.g. acquiring tickets, arranging for museum visits, organizing activities aimed at members with special needs.
- Solving any problems that may arise during the visit, e.g. inappropriate behaviour, communication with reserve's employees, theft, illness, loss of tools, etc.
- Communicating with local authorities, police, hospitals, insurance companies, etc.
- Making decisions on any possible changes to the visit's programme.
- Serving as a translator, if necessary, and providing other services to group members as needed.

Work conditions

Work may be conducted in any open space of the BR/special designated area, in near-by settlements, villages and cities, winter and summer resorts, archaeological sites, museums and inside buses. Changes in weather conditions and work beyond usual working hours are to be expected.

Tools/equipment

Tools necessary

25

25. Learning how to walk through meadows, ESD field visit in *Bourgogne*, France
©Ecole Steiner-Waldorf, Verrières-le-Buisson

26

27

26. Presenting BRs' values and functions in the *Strandja Mountain*, Bulgaria ©Andriana Andreeva, Bulgarian Biodiversity Foundation

27 and **28.** Working with local stakeholders in the *Strandja Mountain*, Bulgaria ©Andriana Andreeva, Bulgarian Biodiversity Foundation

28

6.3 Special knowledge and competences needed

In addition to having basic ecological and pedagogical knowledge, an ESD educator must also have the following special competencies which are acquired gradually after working in an area for some time, given his/her own relative interest and enthusiasm.

Special knowledge on MAB/BRs and international conventions

Based on current beliefs that environmental protection is an integral part of an area's economic and social development, an ESD educator should especially focus on presenting successful case studies of environmental protection and social and economic development in MAB BRs and DAs. Given the complex framework of international and european conventions, particularly following the introduction of the principle of sustainable development and the creation of the UN Committee for Sustainable Development (CSD), an educator must be able to present, in a clear and comprehensible manner, the institutional framework of the main international conventions and national legislations for the protection and management. Depending on the content of the educational programme, reference can be made to specialized conventions, e.g. regarding birds and fishing.

Special knowledge on cultural heritage

In reference to cultural heritage, we must recall the definition of the 1972 International Convention for the Protection of World Cultural and Natural Heritage (Paris): *"Cultural heritage are the monuments (architectural works, monumental works of sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art and science) and landscapes (works of man, or the combined works of man and nature having historic, aesthetic, ethnological and anthropological value)".*

It is, therefore, advantageous for an ESD educator to be able to present existing institutional frameworks in an educational manner using simple language and to demonstrate the need for its reinforcement by all related bodies, citizens, inhabitants and visitors. The question is not of the conventions or legislation themselves, but instead their scope and objectives that must be specified within the studied area. Archaeological sites are part of the national, cultural and natural heritage. Paths that lead to them can also comprise work areas for the educator and should be cared for accordingly.

Special knowledge and competences for persons with disabilities

According to WHO, disabilities is an umbrella term, covering impairments (a problem in body function or structure), activity limitations (a difficulty encountered by an individual in executing a task), and participation restrictions (a problem experienced by an individual in involvement in life situations). Thus disability is a complex phenomenon, reflecting an interaction between features of a person's body and features of the society in which he/she lives.

Worldwide, about 650 million people live with disabilities of various types, and the number is increasing due to the rise of chronic diseases, injuries, car crashes, falls, violence and other causes such as ageing. Of this, 80% live in low-income countries; most are poor and have limited or no access to basic services, including rehabilitation facilities (**www.who.int**).

Every category of persons with disabilities has its own particularities both in terms of communication and movement. Usually, such groups are accompanied by trained escorts, with whom the ESD educator should consult beforehand. If there are marked paths with special signs and features appropriate for persons with disabilities, the educator should be familiar with them. If not, movement through the area is undertaken with persons with disabilities' and escorts' own responsibility and only in safe areas and where no excessive technical problems arise. In regards to communication, it is very important for an educator to be honest in terms of their situation and to be respectful.

29. Young Armenians, *Artsvanist*, Armenia ©Olivier Brestin

30. International exchange of experience in the *Strandja Mountain*, Bulgaria ©Andriana Andreeva, Bulgarian Biodiversity Foundation

31. Bed and Breakfast in *Pluzine*, northern Montenegro ©Jean-Bernard Renier

29

30

31

32

33

32. Training in micro-computing technology, the *Goutte d'or* socio-cultural center, Paris
© UNESCO / Darryl Evans

33. *Cité des Sciences et de l'Industrie*, *DAZIBA'EAU* Project, poster contest with UNESCO, France
© UNESCO / M.Ravassard

34. International exchange of experience in the *Strandja Mountain*, Bulgaria
©Andriana Andreeva, Bulgarian Biodiversity Foundation

34

6.4 Communication

Communication is fundamental to any educational process. In ESD programmes in BRs and other designated areas communication takes on particular characteristics i.e. it must be carried out in a short period of time and in most cases, has no continuation. The process begins with the educator's effort to communicate with the group as a whole and individually. The theoretical approach to communication begins with some evident assumptions that describe human communication (Gotovos, 1990):

a) Communication is inevitable, since the human civilizations formed.

b) Communication is shaped by two dimensions; *relationship* and *content* (meta-communication).

c) Interpersonal relationships are shaped by sequences of individual "moments of communication".

These elements of communication are further analysed in the following paragraphs:

A *relationship* refers to how things are said or expressed through non-verbal behavior. The manner in which we express ourselves, the pitch and tone of voice, the combination of our movements, body language (e.g. raising or lowering the shoulders), and the combination of facial movements - all transfer basic elements of communication. *Content* refers to the intended meaning of a message as expressed through language, and is related to the receivers' thought processes, and abilities to understand. The content transmitted to a group of primary school students is different from that of adults that have finished high school. For example, referring to the concept of pH should be avoided with a group of children of kindergarten or primary level; and simplistic references should be avoided with adults' groups.

Both the dimensions of content and relationship are evident and distinct in communication for BRs and must be evaluated accordingly. While content is that which comprises meaning, the degree to which it is accepted (or rejected) usually is mediated by the relationship factor (the way it is expressed by the transmitter including the non-verbal behavior). Essentially, WHAT we wish to accomplish with the group and HOW we express it are equally important.

It is worth noting that the relationship dimension relates to the quality of social interaction, in other words, to how equal the learners' group and the educator are, as well as to the feelings of the group: a friendly atmosphere promotes collective action; On the contrary, a negative environment or confrontation undermines common efforts. When several opinions are expressed, learners begin to realize that their own opinion is not necessarily the only possibility.

Through interaction they will draw their own conclusions, which they could not have reached otherwise.

The content and the relationship dimensions influence the outcome of the activity (group dynamic), in which the spontaneity of the educator is important. Group members usually do not use academic or sophisticated language, as is the case in a student-teacher dialogue. They pose direct questions on issues of interest to them and require clear answers.

Questions and answers

An ESD educator should answer questions spontaneously and honestly. If he/she does not know the answer to a specific question, he/she should not hesitate to reply, "I don't know, but I will look and find out and tell you the answer later". In this case, he/she must find and provide the appropriate answer.

As mentioned earlier, interpersonal relationships are determined by "sequences" of individual "moments of communication". Introduction is usually the first communication moment followed by moments where communication expands and deepens. If the educator's first moment of communication is not effective or appropriate, he/she must then create a series of "corrective" moments of communication in order to restore a positive atmosphere.

An ESD educator can develop communication strategies on two levels: (i) the personal level, where he/she has personal moments of communication or face-to-face interaction with individuals; and (ii) the group level which refers to what takes place in the presence of all group members. An ESD educator should keep in mind the individuality of the group members and at the same time refrain from too many personal moments of communication that can influence the sequence of group communication.

35 - 36. Investigating groundwater wells, field visit to *Omayed BR*, Egypt SUMAMAD 8th International Workshop
©Thomas Schaaf

35

36

37. Mediterranean marbled white, butterfly species in *Mujib BR*, Jordan
© RSCN

37

38. Blue Sinai lizard (*Sinai agama*), *Mujib BR*, Jordan
© RSCN

38

Symmetrical communication occurs between individuals with a similar social status. Such social groups often use similar communication codes, terminology, expressions, symbolic gestures that are discernable only to them not to others outside the group. Communication is *complimentary* when occurring between individuals of different social groups, age, etc. such as a typical teacher-student communication. An ESD educator should practice ways of communicating symmetrically and complimentary and find ways to interact with different social groups: communication strategies such as negotiation, conflict management, facilitating decision making, are crucial.

As the social identity of one is set by the social identity of another, an educator's good mood or personal behavior can encourage similar behavior in the group. Experimental research shows group behavior and performance relates to the "leader's" behavior and style (Xohellis, 1985). Having this in mind the educator needs to create the group dynamics in a way to enable good communication, and building on one another's' view points.

Even though the educator-learner (student or adult) relationship is, at least in the beginning, a complementary relationship among "unequals", an ESD educator can create conditions that will move everyone to the same level (symmetrical) where they will feel and act as "co-players", "co-passengers" or "co-researchers".
An ESD educator always bears in mind that each person learns in their own unique way, uses their senses differently and registers information received from the environment in an individual and differentiated way. Specifically because of the mixed character of adult groups, he/she should create conditions that allow for everyone to express, regardless of their social status and background.

Finally, an ESD educator always expresses respect towards all, avoiding emotionally-charged wording such as references to persons with disabilities, other special groups, etc. as he/she may not know the composition and particularities of the group members.

6.5 Using games: ice-breakers and group builders

Within ESD interventions social learning is an important parameter. This entails learning ways to behave in society, work in groups or treat conflict. Communication activities, are an important aspect of a conscious ESD intervention with groups.

An ESD educator must improve the group members' communication skills, their ability to deal with difficult situations, to make group decisions, to create and follow rules, such as "No speaking at the same time", "Listen to each other carefully", "Respect different opinions even if I don't agree", "Negotiate with others for a common objective", "Try to combine different opinions", "Contribute to solving a group problem". Essentially, a team is developed gradually within the ESD intervention, as its goal becomes clear for the team members who should all contribute to its realization, depending on their capabilities.

During group building, a variety of activities can be applied to break the ice and build trust. Table 10 outlines some of the activities that can help "build" communication and provide stimulus for developing emotional and social skills such as autonomy, self-control, and interaction skills (Goleman, 1995; Stalikas et al., 2000). These games in a short period of time succeed to concentrate the group and develop trust towards each other and the educator.

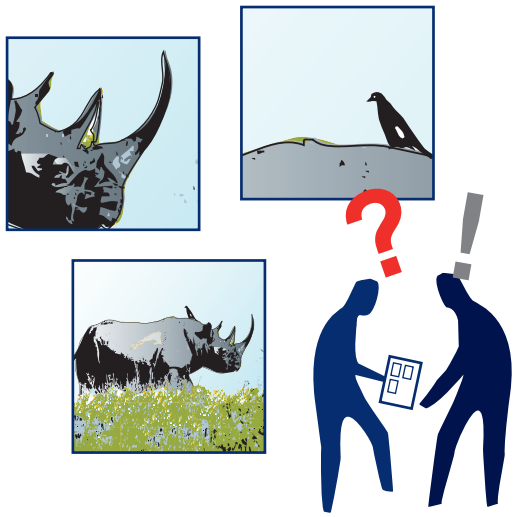
39. Observing oregano (*Origanum vulgare*), *Ecole Steiner-Waldorf*, ESD field visit in *Bourgogne*, France
© Hélène Gille

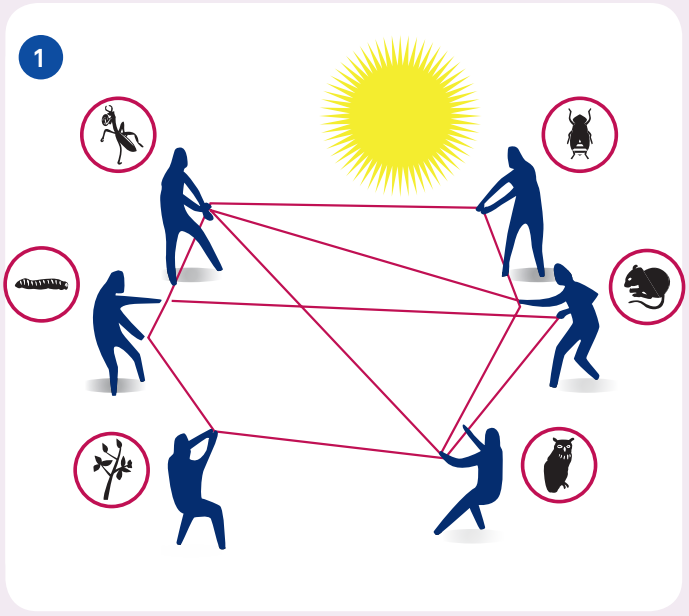
40. Group activity to produce collective artistic work, *Balkan Botanical Garden of Kroussia*, Greece
© MIO-ECSDE / M. Vogrin

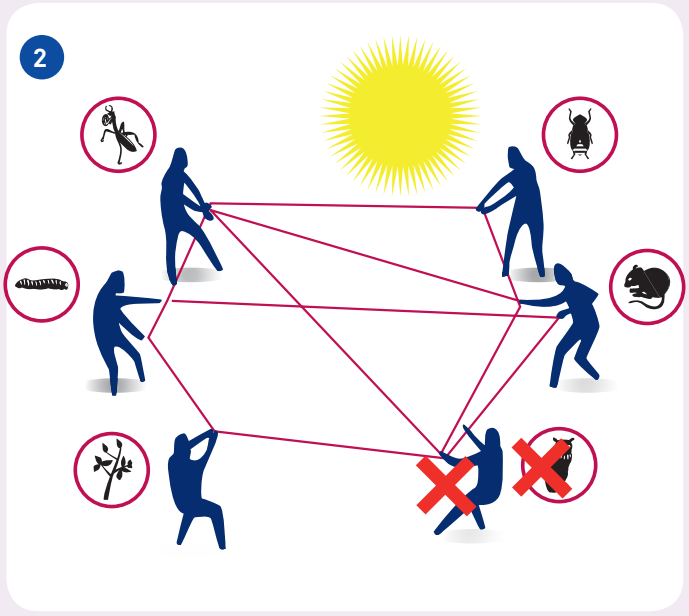
Table 10
Ice-breakers, communication games and composing groups

"Groups and color"
Groups are formed according to shoe color.

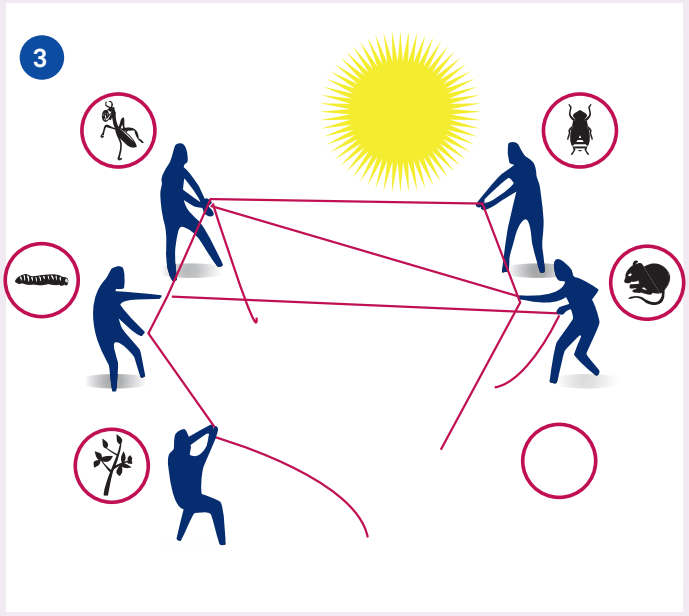
"Image interpretation"
Three photocopies of the same image are needed, one for each group. The first photo is cut so that only a small part of the image is shown; the second shows a bit more, while the third shows the entire image. The first image is distributed and participants are asked to document their feelings or their thoughts. Then the second image is shown containing more information and participants are asked the same questions. The process is repeated with the third photo. In the end, the questions take on other dimensions and reflect a possible change in attitude or feeling, as influenced by other members of the group. Questions encourage discussion and cooperation and also help strengthen communication.







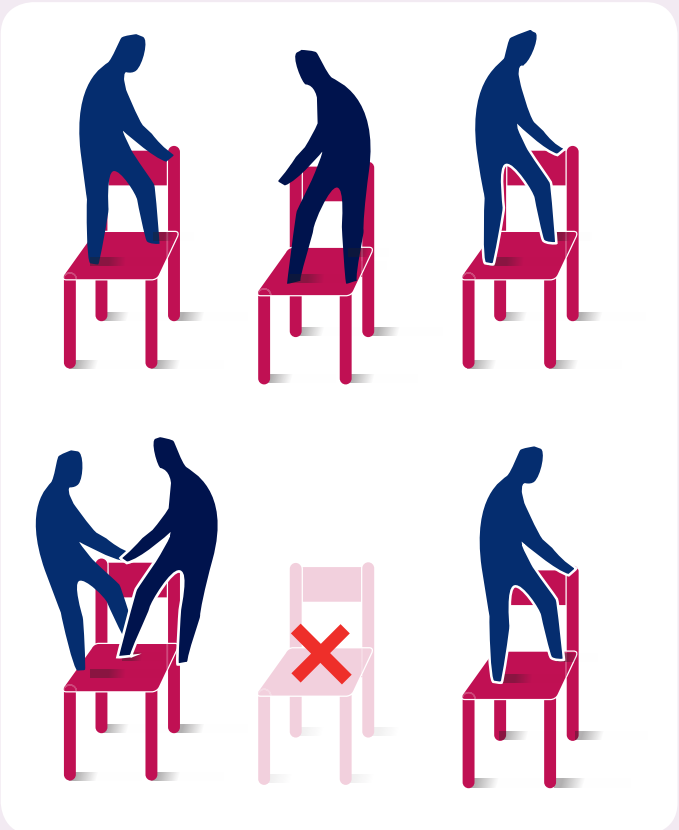
"Food grid"
Group members hold cards showing an animate/organic or inanimate/inorganic component of an ecosystem that has been chosen randomly. The members are connected with string and each person must be familiar with the plant, animal or inanimate element on their card. A basic question is then asked, "What happens if one of the components is altered or disappears from the ecosystem"? One person is moved away from the "net" as they try to keep the string tight. As a new balance is formed, discussion follows on the concept of survival and evolution of an ecosystem but also on the role of human intervention in ecosystems' degradation.



"Food levels"
Students that have already discussed the structure of an ecosystem and know the producers, primary consumers and secondary consumers form a pyramid of food levels. The "producers" kneel on the ground, and the "primary consumers" sit on their backs and so on while the previous level is greater in number and size than the next.

"Sitting on my neighbor's lap"
In a tightly-formed circle, participants' stand, shoulder to shoulder and are asked to turn left while at the same time take a step in towards the centre of the circle so that it eventually becomes "compact". Then they must grab hold of the waist of the person in front of them and then sit on the lap of the person behind them. When the system is balanced, they are asked to raise their arms in the air. The steps are repeated with a right turn. Discussion follows on the need for mutual support and cooperation in order to achieve "difficult objectives".

"Penguins on ice during a period of global warming"
Chairs serve as pieces of ice and on each one there is a "penguin". Because of high temperatures, the ice begins to melt. One disappears and the chair is removed, forcing the "penguin" that was using it to stand on the one next to him, using his hands to support himself on the other "penguins". Global warming continues and there is less and less "ice". There is a moment of chaos where one does or does not help the other to remain on the "ice". The activity demonstrates the need for cooperation in resolving environmental problems.



"Over the waves"
With arms spread out that move freely from the shoulder, non-stop, up and down, the members of the group form two parallel lines facing each other, one of the teams holds a "swimmer" who must cross from one island that has been flooded due to a rise in sea levels from global warming, to another coast in order to survive. The "swimmer" falls horizontally on the arms of the two facing teams. This game requires trust, coordination, confidence and a high level of cooperation.

"Bridge over a cliff"
All the team members form a line, shoulder to shoulder. This line is an imaginary bridge, with an imaginary cliff left and right. Legs are spread apart touching the legs of the person next to them. There is, therefore, room for someone's legs, which starts at one end of the bridge to cross to the other end. Hands may be used to support as he passes. In this way, team members are given the opportunity to meet each other, one by one, while at the same time becoming familiar with physical contact in the effort to support the person who is crossing the bridge.

"Blind man's bluff"
Group members are paired off. One person's eyes are covered while the other helps to guide them through nature or another, human environment. He must avoid obstacles, crawl under low vegetation while walking on different types of terrain. Quiet is necessary as the guide can speak quietly with his partner whose eyes are covered. This activity builds trust, listening skills, balance and many other senses.

"Rope – shape playing"
The only thing needed is a long rope. The group gathers in a circle. Every participant holds the rope with the two hands in front of him and gets blindfolded. The educator asks the group to build a shape with the rope making a geometric figure (e.g. triangle). Rules are that the group can only communicate without seeing each other. When the group feels ready they communicate it to the educator and make their final shape. At the end, participants see the shape they formed and reflect on the experience (feelings, ways of communication, prons and cons).

41

43

42

41 and 42. Tourism, trails in *Wadi Mujib*, *Mujib BR*, Jordan © RSCN

43. Ranger, *Mujib BR*, Jordan © RSCN

6.6 Codes of conduct and safety rules

Rules of behavior for visitors to MAB BRs and DAs

There are many risks and degradation threats in any Biosphere Reserve or designated area. At times, understanding them can prove difficult. For example, a field may be full of flowers and cutting some to collect a bouquet may seem harmless to a visitor. However, as is often the case with endemic plants, this particular flower may be unique to the world and grow only in that particular field. In this case the visitor may put the population of the flower in risk of extinction.

Often, visitors come to designated areas, even to those strictly protected without bringing the appropriate equipment and without being properly dressed. For example, moving around in vividly-colored clothing or carrying radios disturbs birds during their reproductive and hatching period. Birds are also disturbed by the reflection of sunlight on metallic gadgets and buckles, the sound of camera shutters, loud conversations.

In other cases when visitors are not aware of particularities of the local inhabitants, their behavior may not be considered as inappropriate or even offensive by locals. For example, where a local dialect is used, it is not appropriate to comment, or when a local resident does not wish to be photographed, it must be respected. In any case, a visitor's behavior and manners must follow some basic rules.

Within a BR, there is a zoning system (core, buffer zone, transition area) and the educator must clearly explain the reasons for these zones, also how a visitor is expected to behave in each zone, and why. Emphasis should be given to carrying capacity of the habitat, the threats brought on by human activities, as well as the general principles of ESD and its related values. As most visitors (and even indigenous people in many cases), are not aware about the environmental threats and therefore may show disrespect for it, it is imperative that rules implemented must be direct, simple and clearly understood by all.

Of course, behavior rules vary depending on the particularities of an area. For example "bird watching" calls for different behavior rules than those appropriate when visiting a forest. However it must be emphasized that some issues are non-negotiable as regards the preservation of the designated areas.

Safety rules

Visitors to a designated area are often unaware of its landscape or weather conditions. They may arrive with inappropriate footwear to walk in areas with great inclines, rocks or cliffs. Often they neglect to bring water, hat or raincoat. Some of these issues can be dealt by the ESD educator and some are responsibility of the visitor. In the case of special weather conditions, the educator must be aware of alternative footpaths or safe, sheltered rest spots. Moreover, the first aid kit must be supplied with items that have not expired, including anti-allergic and anti-venom for snake bites.

What not to forget... It is a good idea for visitors and escorts to have the following items when visiting a BR or other special designated area:

- Sports shoes or hiking boots and socks (at least 2 pairs).
- Raincoat or knee-high boots if collecting river, lake or sea specimens (not necessary for every team member).
- Backpack and hat.
- Water canteen.
- Weather-appropriate clothing (definitely a windbreaker-raincoat).
- Two changes of underclothing (definitely an athletic undershirt).
- Sun block for the face, cocoa butter for the lips (for the mountains and the sea).
- First aid kit for simple cuts or wounds (bandages, peroxide, iodine, cotton, antihistamine, mosquito repellent, ammonia, antipyretic, ice pack for sprains).
- Anti-allergic medications (inform escort of any allergies).
- Flashlight with new batteries.
- Whistle (only if lost, for no other reason).
- Cell phone or wireless communication device (only for escorts and on silent mode).
- Waterproof bags or small, plastic boxes (for temporary specimen collections).
- Compass, map and magnifying glass.

44. Car park and direct access to the beach, *Marismas del Odiel BR*, Spain
© UNESCO / O. Brestin

45. Information panel on machinery used to extract stone pine seeds, *Doñana BR*, Spain
© UNESCO / O. Brestin

46. Dustbins put in place on the beach, *Marismas del Odiel BR*, Spain
© UNESCO / O. Brestin

47. Entrance panel to the visitors' center for bird watching, *Monfragüe BR*, Spain
© UNESCO / O. Brestin

44

45

46

47