



Training of Trainers Course Module 3

Topic 3.3: Working with information to contextualise a learning program

Table of Contents

What information do you need?	1
Responsiveness	2
What is the aim of the learning process?	4
When you design and develop activities for your learners you need to consider the following:	5
Questions to consider: Defining what information your learners will need	8
References	9

What information do you need?

We live in the information age. Never before has so much of information been available at the click of one's fingertips (or the click of your mouse). Today we go through the average of 174 newspapers a day taking in all formats from video, social media apps and text. Compare this to a 100 years ago when one newspaper was likely the only information one had for an entire week. Therefore how one contextualises and makes sense of all this information is vitally important.

More importantly how you tailor make your information for the needs of your learners is at the heart of deciding what information to use and how to work with it. Together with your contextual profile which you have created in Module 1 and refined further in Module 2 you will now have a clearer indication of whom your learning process is targeted towards.



Activity 3.3.1: Visualising my learners

Knowing who your learners are provides you with the necessary steps to tailor make the information available to them. For example, you will not be giving a journal article to high school learners or a children's magazine activity to adult learners. So for this activity we want you to visualise who your learners are. It will help to know the basics like where they are from, what they studies, etc. but here also try to understand their motivations for being on your learning program. You can do this alone or as a group activity. Build a picture/story of the life of your learner. Think about these questions and more which you come up with to paint a picture of your learner.

- Where does she live?
- Describe her family situation.
- What background does she come from?
- Describe the environment she lives in
- What are some of the difficult issues she faces in her life?
- What does she value in life?

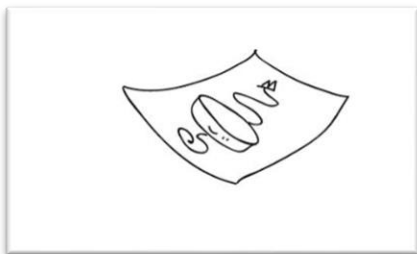
Next try and bring your learner's experiences in line with your learning program

- What are their needs, interests and challenges within their context?
- What do they already know about this topic? (influenced by experience, education, media, etc)
- What new knowledge do they seem to need?

A story will emerge out of these questions. Try to create a story that is as realistic as possible.

Responsiveness

The idea of response invokes the idea of conservation, dialogue, debate and emotional reaction; [it invokes] the sense of a large web of interconnections not only among individuals but among cultures, among natural phenomena, among bio-regions; and between individuals and cultures, between technologies and the life forms they make possible; between language and culture, between culture and schooling. It is this entire complex of interconnected issues that responsive teaching should be alive to... (Elblaz, 193:190)



While you were working on your contextual profile, investigating the issue from different social, economic, biophysical perspectives and interviewing the various stakeholders that are involved in the issue you would have come to the realisation that these are complex issues which are particular and diverse with no easy solution. Learning as well takes place in diverse contexts and the implications would seem that we need to deliberate curricula which respond to environmental issues and risks as they arise in diverse contexts, and create learning processes which respond to particular learning situations in different settings.

While curricula of this nature would be responsive to the needs of participants and to the complexity of the socio ecological context, curricula are likely also to be influenced by the context and constraints of the course developers for example a course might be run through formal institutions as part of a formal qualification (such as this Training of Trainers course you bare on). In such a case the course would need to adopt assessment strategies which reflect the procedures of the institution. A range of factors may influence the work of the course developers for example situational or geographical location n or constraints available materials, funding, resources and experience.



In addition, the situations in which adult learners respond are often complex. In describing adult learning processes in the Karimoja Development Programme in the North East of Uganda, Munthali (1997) indicates the importance and the complexity of responding to participants in context. He describes the situation in which the developed training programs for the Karimojong communities as follows:

The socio-economic and political scenario of Karimojong society is very complex. Socially they are highly traditional and independent. Economically they depend mainly on cattle meal, milk and blood. Over the years they have adapted the food culture of their neighbours. Politically, the Karimojong have maintained their distance from Ugandan government control. Historically their experience of contact with government has been that of punishment, imprisonment, abandonment, betrayal and military encounter... The main goal of the program was to improve the lives of the Karimojong people... the community development department was assigned the task of mobilising and educating the Karimojong communities... on practical implementation of the development projects... the Karimojong, in particular, exhibit a very patriarchal and dictatorial rule over family, other warriors and neighbours. A Karimojong man will not tolerate democratic processes in decision making... [we needed to] gather experiences from the community to develop knowledge on how to work with people.

As one can see from the above example one needs to be very sensitive to the prevailing socio-economic and political aspects of the community, organisation, institutions we are working with. If we attempt for example to create a learning process that does not align with our participants' values then we are inevitably setting ourselves up for failure. At times one is able to assess what the needs and the context of the community one is working with. However sensitivity and

responsiveness is needed at every stage of our learning program and thus we need to be able to adapt and adjust our programs accordingly should the need arise.

These are the hallmarks of a reflexive practitioner and it is a skill that develops with practise as well as with empathy, commitment and the desire to understand the context we are working with.

Don't be afraid to try out a new teaching method or learning activity, if your answers to most of the questions above, point you in its direction. It is no coincidence that certain subjects favour certain teaching methods.

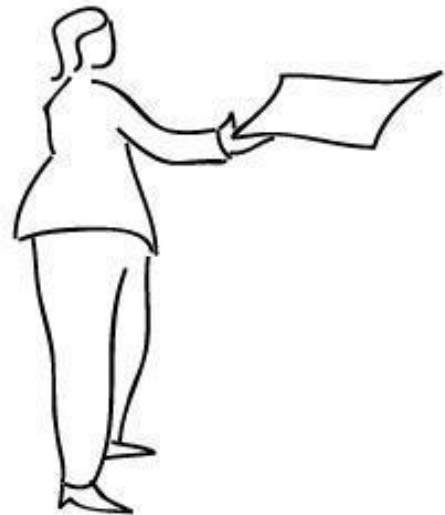
It relates to the purpose of the curriculum, and the potential of the method. For example, over the years, geography teachers have found fieldwork to be a useful method, while English teachers like to use dramas and debates, to get students to use the language and learn to think well. That is not to say that the Geography class cannot also have a debate about a geography topic (such as sustainable development) or that English teachers cannot use the writing of fieldwork reports as a language activity. But always consider the intended learning outcomes (curriculum purpose) when you select methods and activities.

Activity 3.3.2: Creating a responsive learning process

Looking back at your contextual profile and taking into consideration some of the scenarios and concerns addressed above, how would you go about ensuring that you are creating an inclusive and responsive learning process that suits the context you are working with? Use the questions below to guide your thinking:

- How does your learning process respond to the complex social, environmental and economic issues present within your chosen issue as outlined in your contextual profile?
- How are you working with cultural or social values and beliefs within your chosen context in your learning process?
- How does your learning process address the socio-ecological issues at local level while not neglecting the global context?
- Does your learning process take into account different cultural, religious and national beliefs?

Also consider: how do learners learn? The short answer is: in different ways. For example, young children, busy integrating left and right brain hemispheres, learn to read and spell both through sight (left brain, lumping together) and through phonics (right brain, splitting into bits). So multi-sensory methods are recommended (e.g. let them sound out words and use flash cards). In numeracy, ‘work it out’ activities are vital to establish concepts. Everyone learns by making connections to what they already know.



(See Section 3.1) and benefit from experiences that help them to make sense and to remember. The upshot of all this is that we should use a variety of teaching methods. But use and combine these variety of methods appropriately.

Humans are viewed as goal-directed agents who actively seek information. They come to formal education with a range of prior knowledge, skills, beliefs, and concepts that significantly influence what they notice about the environment and how they organize and interpret it. This, in turn, affects their abilities to remember, reason, solve problems, and acquire new knowledge

When choosing information and activities for your learning process always ask yourself:

1. What do my learners need to learn?
2. Is this activity the best way for these learners to learn this?
3. Does the activity give them access to new knowledge and/or relevant skills?
4. How does this activity connect with what we have done before?
5. Does it prepare learners for what we will do next?
6. What must we do afterwards, to check and consolidate learning?
7. How long will it take to do this activity well?

What is the aim of the learning process?

Having selected the learning process you and your learners have decided on, implementing the investigation should involve the learners in planning the sort of investigation you have decided to undertake.

Certain aspects are important for success in the learning process.

- Understand the relevance of the investigation and see its worth
- Negotiate and to understand what will be expected of them, in terms of their responsibilities and roles, whether as part of a group or as individuals
- Know what outcomes they are expected to achieve and what performance indicators they will be assessed on

• Understand how to carry out the tasks assigned. For example if data gathering in their field work task will involve them in an unfamiliar procedure such as a water audit, an interview, or a slope analysis, this will have to be taught and practiced before embarking on the field activity. Equally important these materials and information should be presented and explained to your learners prior to the activity so that learners are prepared for the activity.



Examples of learning activities you can use in your learning program

Tuning in activities

Tuning in simply means being able to harness what your learners already know about the activity. It is in keeping with the learning theory of constructivism that students are not empty vessels but co-creators of knowledge. This simple activity is one way in which you can accomplish a tuning in activity session.

On a piece of paper, write down all keywords that you associate with the subject.

In small groups, discuss the issue/subject and then report back to the rest of the workshop group on what your group understands around the subject.

Share an experience around the issue/subject.

When you design and develop activities for your learners you need to consider the following:

Do you have a clear idea of what exactly it is you want your learners to know, that is to understand. This means you have to know what concept/s you want your learners to understand. You have then to think about the learning that you want them to achieve by thinking about the about, the why, the what, the how and the how to, that is part of that learning. In short what do you want your learners to know to be able to say with confidence “we know”.

Then you have to ask yourself what will the best way be for them to achieve this learning? What strategy or approach will be the best way for them to learn?

- Will I use one activity, or a combination of activities?
- And most importantly- what must I do and what must they do.
- Remember activities are not just things the learners do.
- All our teaching is an ‘activity’ providing that what we do meets the following criteria:

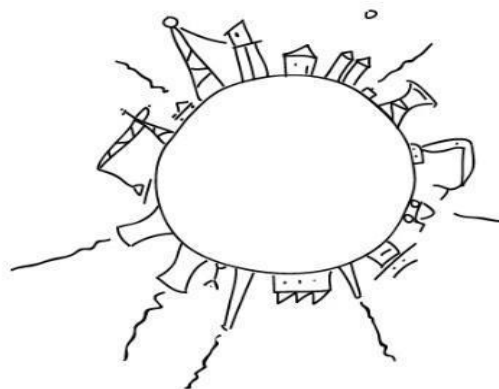
There must be some input either from the teacher, or from the learners or from both the teacher and the learners. E.g. the learners complete a questionnaire to assess their prior knowledge of the 'environment'

- There must be a response to the initial input either from the learners
- There must be an output. Something must be produced, e.g. ask the learners to write down what they understand by the environment based on the discussion.
- There is feedback. Ensure that the learners have a sense of how well they have done, e.g. discusses their written answers.
- The third step in developing activities is to consider the logistics:
- When will I do the activity?
- Have I set aside enough time?

Have I got the right equipment and materials?

- How do I get what I need?
- Do I need to make special arrangement with my colleagues?
- Are the learners prepared for this kind of activity? What do they need to know and to be able to do so that the activity is successful?

By now it must be evident that in order to plan your teaching in a learner-centred manner, the more complex the activity or set of activities the more time you need to spend on making sure that things go well.



Case Study 3.3.a: Adaptive Management and Climate Change

Adaptive management has become an increasingly desirable approach for natural resource management in general, due to the growing awareness of two critical challenges:

- The reality of ecological complexity and social complexity, and thus of the complexity in social-ecological systems; and
- The presence of multiple stakeholders with differing perceptions, values and expectations related to conservation.

To the above two critical issues we can now add the climate change dimension, which serves as both an enhancer of complexity and in many instances a risk multiplier for existing stressors.

Given the wide range of different stakeholders who live in and around protected areas and TFCAs (Trans Frontier Conservation Areas), as well as those from further afield who nonetheless are key stakeholders (such as researchers and scientists, concerned citizens, and policy makers), it is not surprising to find widely differing views on and expectations for biodiversity management in a park.

Questions to consider: Defining what information your learners will need

It is useful to consider the following questions when deciding what information and materials might be appropriate in different contexts. These questions will also help you identify what learning theory will be best to use. (See Section 3.1)

The nature of the environmental issue or topic and knowledge related to the issue

- How complex is the issue/topic?

Case Study 3.3.a continued:

These are often based on different world views as well as varying familiarity with and differential valuing of different forms of knowledge. These differing views and expectations may also be related to different time horizons and spatial scales.

This multiple stakeholder context has led researchers and practitioners to use the term adaptive co-management to describe the kind of adaptive management that is designed to allow for cooperative interaction and mutual learning between stakeholders such as conservation agencies, researchers and local communities. In such an approach, which is highly relevant to protected areas and TFCAs in the SADC region, adaptive management is implemented in a process not only of ongoing learning, but also of ongoing negotiation, in which developing mutual understanding and sense-making are priorities. Such a process would be a move away from targeting an optimal solution for 'the (single) problem', but rather keeping the process of negotiation and developing mutual understanding going. This has obvious relevance for integrating climate change adaptation into biodiversity conservation through the vehicle of adaptive management, given the need to bring together indigenous, local and scientific knowledge to develop locally appropriate and scientifically sound adaptation solutions.

An important task of the adaptive management framework in the context of climate change and conservation management will be to manage and reconcile short-term and long-term goals for vulnerability reduction. This further underlines the need to bear in mind the systems thinking approach which emphasises viewing the TFCA and its surroundings as comprising a social-ecological system, in which the social cannot be separated from the ecological and vice versa. The social-ecological systems concept recognises the complexity and non-linearity in the real-world systems in which we live and work, with their characteristic uncertainty. Adaptive management fully acknowledges the high levels of uncertainty, and indeed of indeterminacy that are inherent in complex systems.

Reflection Task: *How does your learning process navigate these critical issues in Natural Resource Management, Climate Change and the challenges as outlined in your contextual profile? How do you deal with conflict between the different stakeholders you have to engage with in your learning process? How does this enable you to effect positive change to the issue and in your context? What information/materials/activities can you introduce to the different stakeholders that will enable this?*

- How much consensus is there about (knowledge related to) the issue/topic?
- Is there sufficient knowledge about the issue/topic? Where or from whom can one get information about the issue/topic?
- What are the different types of knowledge available regarding the issue/topic (scientific, cultural, common sense, traditional, speculative)? Which are seen as more valid or true and why?
- Can the causes of the issue be easily identified? Is the issue an effect of a larger issue or underlying cause?

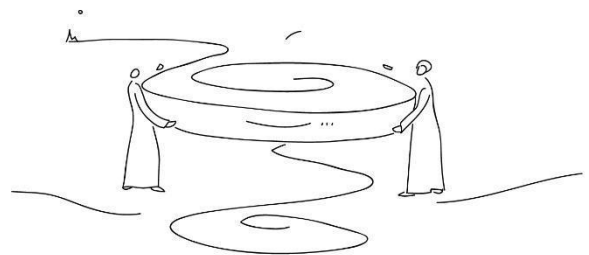
- Do different role-players have different interests in relation to the issue/topic? How does this shape the way they understand the issue or want others to understand it? Which role-players have more power and resources to shape how the issue/topic is understood?
- What is the scale of the issue/topic (local, national, global)?

The role of the learners

- Do the learners have any existing knowledge or experiences related to the issue/topic?
- How is the issue/topic related to the learners' lives or work context?
- Do the learners have any influence over structures, activities or behaviours related to the issue/topic?
- What are the learners expected to know or do regarding the issue/topic?
- What is the learners' role in the education method/activity?
- Are the learner's children or adults, community members or the general public?
- Where is the learning taking place - in schools, at environmental education centres, community projects, business and industry, government departments?

The role of the educators

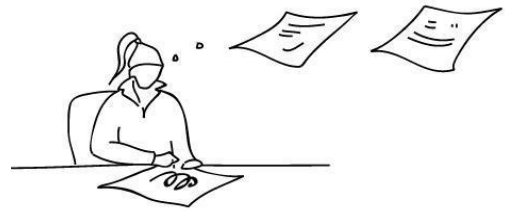
- What is the role of the educator in the education methods or activities?
- What knowledge does the educator have regarding the issue/topic?
- Is the educator aware of his/her own assumptions, values and beliefs that shape the way he/she understands the issue/topic?
- What role does the educator plan for knowledge/information, values, critical thinking/reflection and action taking in the methods or activities for this issue/topic?



- How does the educator plan to respond to the needs/context of the learners during the education activity?

The role of education materials

- Will the learners be provided with knowledge/information or supported to find it out themselves?
- Should the materials provide lots of information/knowledge/content about the issue/topic?
- How can the materials stimulate critical thinking and analytical skills?
- How will the materials be used, or what is their role, during the learning activities?
- What materials are needed to enable action for change?



An educator who considers these questions and then reflects on the educational orientations is likely to have much deeper insights and understandings of why they choose to use different approaches and materials in different situations.

Activity 3.3b: Working from contextual profiles. Let's look at an example from a contextual profile of one of our course participants. She chose to use littering as her NRM issue. Here is a brief excerpt:

At a school there are different people that interact with the environment like we have teachers, learners and institutional workers. Most learners buy packed food products and fruits from the school tuck-shop and from vendors all over. The packaging waste materials is left anywhere on the ground, resulting in littering the school environment, which affects the health and living of people around the school. Since littering became a Natural resource management issue in schools, teachers have decided to teach learners to sweep classes, and pick up papers around the school after break. Our school has environmental club that is responsible for managing natural resources around the school and educating other peers about the importance of natural resources.

As we can see from the above excerpt she clearly identifies the issue and her intended learners, in this case they are learners from her school. The next step now will be to craft the information materials. One can use the questions provided in the above to help one be able to prepare the most relevant materials. **If you were to create learning materials for the environmental club what would you take into consideration and how would you craft the materials. You can do a quick exercise here to map out what materials you think will be best for her context or you can use your own contextual profile.**

The following contextual considerations will shape decisions **(you could specifically address these in developing Assignment 3):**

- The organisational mandate - what should the educational endeavour achieve from the organisation's point of view?
- Policy or legal frameworks may be shaping this a little or a lot
- The NRM issue which is the current focus (note that educational processes do not always start with an issue - it could be an opportunity such as a rich source of biodiversity or natural heritage site)
- The specific educational purpose derived from the issue, opportunity, policy or mandate

- The intended participants - who will participate in the learning, why are they the participants, what do they already know, and what would their intentions or interests be?
- The educational or training needs of learners, e.g. are they workers or community members who need to tackle a particular NRM issue?
- Characteristics of the learners, such as their educational background and language preferences
- Available resources such as venues, props, materials, digital tools, media and connectivity.

Outside formal educational institutions, facilitators of learning need not follow the structure of an academic discipline in order to help build understanding. The logic that should guide the educator's planning is here an educational logic, rather than a disciplinary logic. For example, in order to address a water-related NRM issue, one need not start with a description of the water cycle, or the chemical composition of water (2 Hydrogens + 1 Oxygen). One might hold the attention and intention of the learners better if one starts with their concern - why are they interested in a water issue? Design a coherent educational process from there that takes into account the logic of what the educational process should aim to achieve, the logic of how best people learn towards this intended learning outcome, and the logic of the processes that best support such learning.

Planning learning processes can be done at different levels. For example, in an organisation like [the South African National Biodiversity Institute \(SANBI\)](#), learning processes could be planned at the level of the organisation, based on its mandate and corporate strategy; at the level of a local site, e.g. at one of SANBI's education centres, and at the level of individual groups or communities visiting the centre.

Many environmental educators design learning processes in a participatory manner, that is, where possible and appropriate, the intended learners themselves help to decide on the content and methods used in the process. And in expansive tended social learning processes, much of this unfolds over time.

The following is a set of questions one can ask when planning a learning process (such as a workshop, a lecture, or project) to support social learning in an informal NRM context.

- What is my organisational purpose (role, mandate, strategy)?
- What is the NRM concern or opportunity to address?
- Which aspects of this NRM concern or opportunity are relevant, and how?
- Which learner groups should therefore participate in the process?
- In that case, what is the educational purpose?
- What are the characteristics and needs of these learners?
- Which methods would be suitable for addressing this purpose, with this group?
- What resources are available and not available?
- What are realistic time frames?
- What activities could be offered to the learners?
- What would be a logical or coherent sequence for these activities?
- What educational materials and other tools would be needed?
- How could one evaluate the process, perhaps involving the learners themselves in the process? (In Module 4, we focus on the implementation and evaluation of learning processes.)

Ways of structuring a learning process could be:

- Using a chronological order, perhaps starting with the here and now, then going into the history of how things came to be like this, then looking to the future learners want
- Expanding the scope or scale of an activity, perhaps starting small with a few ideas or a small-scale investigation, and then expanding the breadth and range of an activity;
- Expanding the cognitive complexity of an activity, perhaps starting with description, followed by analysis and problem-solving;

- Expanding the context of an activity, perhaps starting with the known (find out what learners already know) and extending the activity to include unfamiliar, related information, cases or examples.

Conclusion:

These concerns also help shape what information you choose to use and how you will

Contextualise it for the benefit of your learners. By no means is this a complete list of questions but it is however a useful tool to use in order for you to get a good sense of what information, materials, media you would want to use. Always keep in mind when designing materials and curating information for your learners that simpler is often better and ease of understanding will help you to achieve your learning goals faster. You can find useful material in your course notes and links to valuable websites within this course as well.

References

- 1.) Lotz, H (1999) Developing Curriculum Frameworks: A source book on environmental education amongst adult learners Book 1 an enabling orientation. SADC-REEP. Howick
- 2.) Mbamanovandu, E. (2005). Planning an enquiry based learning program. SEEN. NIED
- 3.) NEEP-GET (2005). Learners, learning and teacher learning relationship. National Environmental Education Project for General Education and Training / Share-Net. Howick.
- 4.) Teacher Education Workbook for environmental and sustainability education in South Africa, (2011) SADC REEP. Howick
- 5.) Urquhart, P & Pesanayi, T. (2015). Climate change adaptation in transfrontier parks in southern Africa: Module 3. Sharenet: Howick
- 6.) Wigley, J. Payne, H. (2007) Enviro Eds Training Manual. Sharenet. Howick