



Strengthening the Occupational Health Expertise and
Scientific Performance of Public Health Institution of
Turkey

ESPriT



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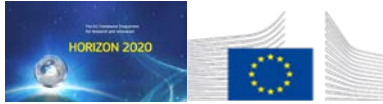


Train-the-trainer

Part 1



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Training part 1

Introduction to the unit

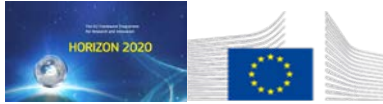
The final assignment for ESPrIT Train-the-trainer requires you to identify, design and develop a short training course for delivery within your organisation.

In this unit you will learn about the theory and practice of using a training session to develop the knowledge and skills of your participants. You will then use your skills to plan, design and deliver your own training session in one or more aspects of Occupational Safety and Health.

The unit takes the form of a work book in which there are 6 sections in the book, each one corresponding to one of the learning objectives for the Unit. This is Part 1 of the Unit with the first 3 sections.

If you attempt all the activities as you work through the book, you will acquire the skills you need to plan, design and deliver your own training course. Each section has been designed to build on the previous one. Some of the activities will provide you with the work you need to discuss at the train-the-trainer program.

The activities in this workbook are your opportunity to use the skills from each section to begin work on the training course you have to design and deliver for your final assignment. At the Train-the-trainer program you will be able to share your experiences with other participants. This will help you to broaden your understanding of both training and Occupational Safety and Health.



Throughout the work book feedback is provided for the activities so that you will know if you are gaining the knowledge and skills as you study. At the end of each section there are some self-assessment questions that will allow you to test yourself. If you cannot answer any of the self-assessment questions, you should go back and work through the section again. If you still don't understand you can contact your tutor or discuss your questions with them at the Train-the-trainer sessions.

Throughout the Unit the activities use very general examples. Most relate to the use of computers or to basic aspects of Health and Safety. You should be able to understand the principles from these activities and apply them to your own experiences and your own training course.

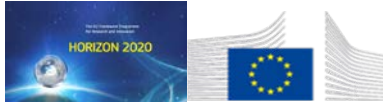
This Unit has been designed to take an **average** of 21 learning hours. Not everyone learns at the same pace, so don't be surprised if you finish sooner or take a lot longer. The important thing is that you do undertake the activities because you will learn much more than if you just read through the text like a book.

Do not forget that throughout ESPRIT **you** are the learner. Always try and reflect on your experiences as you progress through your learning about Occupational Safety and Health and apply the best of your experiences in your design of the course you are preparing for others.

Learning objectives

On completion of this unit, participants should:

- have knowledge of the issues relating to adult learning
- be able to conduct a training needs analysis
- be able to identify the different learning strategies and teaching methods which are applicable in participatory training sessions
- be able to design a short training course, using appropriate learning strategies
- be able to develop and deliver training courses
- be able to conduct an evaluation of the training course



Section 1 - Issues relating to adult learning

Learning Objectives

On completion of this section you should;

- Know that adults have different attitudes to learning from children and young students
- Be able to identify some of the issues which distinguish adult learning
- Be able to identify and actively address the issues relevant to adult learning in the training session you are going to prepare for your final assignment

Introduction

You are going to be designing a training session for your colleagues. Your course will be most effective if you make sure you know your target audience and anticipate their preferences with respect to the way you treat them throughout the course.

Adult learning

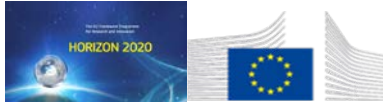
It is possible that many of your participants will not have been involved in formal learning for some time. The last formal learning for some may well have been at school. They will not appreciate as adults, the experience they had in a classroom as a child. Throughout this section you will undertake activities, which help you to identify these issues as one of the important features of the design you will undertake for your own training session(s).

Activity	1
----------	---

By examining your own experiences this activity will help you to identify those features of classroom teaching, which may be unacceptable to an adult. Use the space below to write down 5 things about your own school experience which you think you would not like to experience as an adult

- | |
|----|
| 1. |
| 2. |
| 3. |
| 4. |
| 5. |

Feedback



There are many things you might have identified. Examples are: having to sit in rows facing the teacher, not being able to ask questions, being afraid to answer questions in case you were wrong, not having time to finish work, not understanding the lessons or not being able to see the relevance of the curriculum.

When you are designing a training session, you must avoid your participants having any of the concerns you have just identified. Your participants may be employed at a lower level in the organisation than yourself, but they may be your equals or even employed in more senior positions than you. Training is about helping people to learn. Making them comfortable and confident about the process is very important.

Activity	2
----------	---

This activity will identify more of the things, which might make your participants feel uncomfortable in a training session and limit the effectiveness of your course.

Imagine that you are the participant in a training session, which is being facilitated by a junior colleague who happens to be an expert in a particular skill. It might be the use of computers or a new telephone system that has been installed. Write down some of the things that would make you feel uncomfortable about learning from a junior colleague.

<ul style="list-style-type: none">••••••••

Feedback

The most common response in this situation is that you might be afraid of failing and being embarrassed. More junior colleagues might be patronising in their attitude to you, deliberately using technical language you don't understand. You might find that you cannot work quickly enough as you try to understand the new information and skills you need. You might want to discuss your grasp of the situation with other participants and see if you are on the right track before the group moves on to the next stage or ask for help if you are the only one who doesn't understand. All of these things can and do happen in poorly designed training sessions and they all result from a lack of understanding of the issues facing adult learners.



Participants' profile

It is very important to know as much as possible about your target group before you design a course.

Activity	3
----------	---

Look at the application form that you completed to join this course and identify 3 things that the course team knew about participants for ESPrIT and 3 they did not ask for.

Known facts

- 1.
- 2.
- 3.

Unknown facts

- 1.
- 2.
- 3.

Feedback

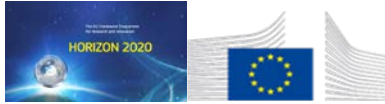
We asked for several facts about you but the most relevant for the design of the course are, competence in English, competence in Information technology, position in the organisation, areas of responsibility and role in Occupational Safety and Health. Knowing these facts and using them as criteria for selecting participants has helped us to design a course which is both relevant and at a level with which all participants can engage.

Things we did not consider relevant were age, other qualifications and type of organisation for which you work. Some of these might be relevant for other courses, but not for this one.

The following table summarises some of the things you will need to know about your group of participants before you can begin to design your training course.

Table 1

Issue	Examples
Composition of the group	You may have a group, which is homogeneous in age, seniority and experience, but it is more likely that you will have to design a course for a heterogeneous



	group from a variety of backgrounds and with different levels of experience. Find out all you can.
Practical experience of participants	Your group may contain senior people who have little practical experience but who have responsibility for managing an activity or process. Some may be very skilled in practical aspects, but lack theoretical knowledge. In a well-designed course you can turn this diversity into a very positive aspect of the course.
Adult learning	These are the issues we have identified in the first 2 activities and include; <ul style="list-style-type: none"> • the need to learn by doing and discussing, not just being told, • slower learning • fear of failure • having a contribution to make • dislike of being patronised by class room methods
Reason for attending	This is very important. If your participants have been required to attend they will have a very different attitude from those who have volunteered. We will consider motivation at a later stage.
Relevance	One of the most demotivating factors is not understanding why you are doing something and what its relevance is to your work situation. This is why you need to know about your participants' role in the organisation



Activity 4

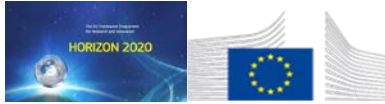
In this activity you can begin to plan the training session for your final assignment.

Discuss with your line manager or your client what the target audience for your training session will be. Use Activities 1, 2 and 3 together with the table to create a participants' profile.

Participants	Issues
Possible number of participants	
Different roles undertaken by participants in the organisation	
Responsibilities for OSH	
Past and present experience of OSH	
Volunteers or conscripts?	
Other factors	

Feedback

You will discuss this table at the train-the-trainer seminar so that you can share it with the tutors, but if you can discuss it with other participants, it will help you to focus your ideas.



Summary

In this section we have considered some of the issues, which you should consider before you even, begin to design a training programme or session. They relate to the dynamics of a group of participants and not directly to the content which we will consider in the next section that is on training needs analysis. Adult learners have particular needs and attitudes to learning, which are frequently based on their personal experiences. They often fear failure or displaying a lack of knowledge and understanding. At the same time they will resent any approach by a trainer, which they perceive as patronising. The challenge is to ensure that all participants know what they will learn, appreciate that their experience will be recognised and feel that they are being addressed as equals. The best way to ensure that you reach the right balance is always to consider whether you feel you would enjoy being one of the participants.

Key learning points

- Adult learners should be addressed as equals by the trainer
- Previous experience should be acknowledged and used to advantage
- The training session should take into consideration all aspects of the participants' lack of confidence
- Knowing as much as possible about the participants will enable you to address as many issues as possible when designing the session(s).

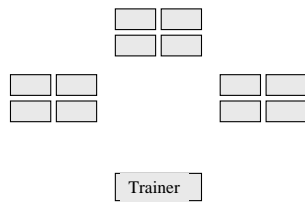
Attempt the self-assessment questions before you move on to section 2

Self-Assessment Questions

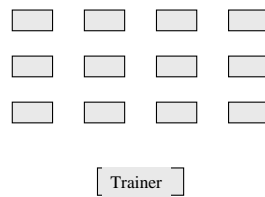
1.

Which of the following diagrams best illustrates the layout you would use for a training session and why?

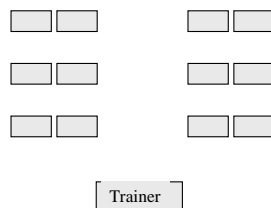
Layout a)



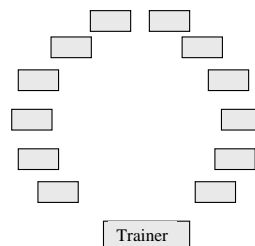
Layout b)



Layout c)



Layout d)



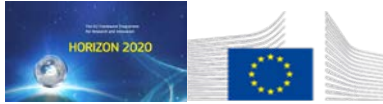
2.

List 3 concerns adult learners might have about their ability to participate in a training session.

3.

Rate the following aspects of a training session as essential (E), desirable (D) or unimportant (U) to the establishment of an appropriate relationship with adult learners;

- a) Being older than the participants,
- b) Knowing what the participants' roles are in their organisation(s) before the event,
- c) Having clear learning outcomes for the session,
- d) Treating participants as equals,
- e) Using an appropriate seating layout,
- f) Having a schedule and sticking to it



Answers to Self-Assessment Questions

1. No good trainer would consider using layout b). It is very like a traditional classroom and definitely conveys the message that the trainer is going to ‘deliver’ information to a predominantly passive and subservient audience.

Layouts a) and c) have the advantage that participants are grouped ready for participation in activities designed for groups or pairs, but the groups are preformed and don’t allow flexibility.

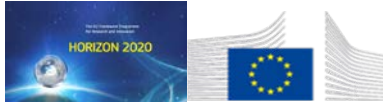
Layout d) gives an inclusive impression and suggests that the session will be active, participative and is preferred by most trainers.

2. You could have included;

- Lack of background knowledge
- Lack of practical experience
- Inability to work fast enough
- Inability to remember facts
- Overall fear of failure

3.

	Rating	Explanation
Being older than the participants,	U	This will only assume importance if you let it. If you have a well-designed session and know the content, age is irrelevant.
Knowing what the participants’ roles are in their organisation(s) before the event,	D	It is desirable to have this information, but if it is not available to you, you can begin your session by finding out.
Having clear learning outcomes for the session	E	This is essential. If the outcomes are not clear, your participants will be confused and may deduce that you don’t know what you are doing. They must have confidence in you.
Having a schedule and sticking to it	D	It is essential to have a schedule. However, one common failing of trainers is to be too ambitious about what can be covered in a session. A schedule should not be so ambitious as to prevent flexibility and sticking to your schedule is desirable not essential, but you should always have alternative plans in case you over run the time.
Treating participants as equals,	E	This is essential. In another situation, your participants may become your trainer! Learning should be an enjoyable activity which a trainer facilitates not dictates.
Using an appropriate seating layout,	D	As you have seen in question 1 some seating arrangements are better suited to a training session than others and an appropriate arrangement is highly desirable but a good trainer can work with most situations and adapt the arrangement to suit the activities.



Section 2 - conducting training needs analysis

Learning objectives

On completion of this section you should be able to:

- Decide when a training session is the appropriate means to address a problem or need
- Define the tasks which can be resolved by training and identify the elements of knowledge, ability and attitude
- Derive general objectives for a training session from a task analysis exercise
- Identify any factors which might limit the effectiveness of the course and any complimentary ones which will be of benefit

Introduction

In section 1 we considered what the profile of participants might be and the issues that relate to them as learners. We will now consider why they need to be trained and how the outcomes of the training are identified. This is known as **Training Needs Analysis** and follows directly from the points made about relevance in section 1.

Is training a solution?

As a trainer you will have to be careful not to offer training courses for problems, which either cannot be solved by training or could be solved more simply by another approach.

Activity	5
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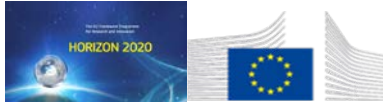
Here are 2 scenarios, which might occur in an office. Write down what you think the appropriate action might be to resolve the problems

An operator is given a computer to replace a typewriter and there is a technical problem with the computer. The computer technician is called to fix the problem but cannot.

Appropriate action:

The same operator has been trained to use the software on the computer but still has a problem formatting documents.

Appropriate action:



Feedback

In the first example there is no point in training the operator if a technician cannot solve the problem. You would have to investigate more fully to see if the technician needed training. It might be that he or she needs some training on this model of computer. In the second example, the operator certainly needs to know how to format documents and will probably have been shown how to do this during the initial training. In circumstances like this a job-aid such as an instruction sheet or a manual, may be more effective than training.

The central question to be asked is: Is training the best option to solve the problem, or are there better alternatives? If training is the best solution, you can start examining the training needs more thoroughly.

Tasks

In order to tailor the training to the needs of participants, the actual tasks to be executed have to be identified and analysed first. Training needs analysis should be done in consultation with the client who might be a manager, a trade union official or the individual themselves.

It is important to identify each main task and then to consider whether there are any additional tasks or activities to be considered.

Activity	6
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Let's return to the example of the computer technician from activity 5. Suppose that your organisation has just installed new computers for all its office workers whereas before there were only a small number of old computers for the accounts department. Clearly the computer technician would need to be trained to maintain all the new computers. If you were the operator of one of the new computers, what do you think you might want the technician to be able to do for you? Write down two main tasks and two additional tasks or activities?

Main task 1

Main task 2

Additional task 1

Additional task 2

Feedback

The two main tasks are likely to be repairing any hardware faults and supporting users with the software. Additional tasks might be to exchange parts or return them for repair in the case of hardware and know how to use software packages and install updates in the case of software.



Having identified the tasks, three very important questions must be considered:

- a. What should a person *know* in relation to this task?
- b. What should a person *do* with this knowledge?
- c. What *attitude* is needed in relation to this task?

Identifying the tasks and answering these questions can be achieved with the help of documents such as policies, manuals and questionnaires about roles and responsibilities, observation of working practices and interviews with managers and employees.

The answers to the three questions a), b) and c) can be written down in a **task analysis matrix**, which will function as a simple task profile.

Activity	7
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Again using the example of computers and the 2 main tasks which we have identified, complete the following table

Tasks		Knowledge	Skills	Attitudes
Main Task A	Repair hardware faults			
Activity	Return parts for repair			
Activity	Replace faulty parts			
Main Task B	Support software users			
Activity	Use software packages			
Activity	Install updates			



Feedback

Your suggestions may differ from those given below, but these illustrate some of the outcomes that may be required of any training programme.

Tasks		Knowledge	Skills	Attitudes
<i>Main Task A</i>	<i>Repair computer hardware</i>	<i>Know the component parts of the computers Know the symptoms of faults in each component</i>	<i>Identify the faulty component Remove faulty parts Install replacement parts</i>	<i>Attention to detail Positive approach to safe working practices</i>
<i>Activity</i>	<i>Return parts for repair</i>	<i>Know which parts can be mended and which need replacing Know general terms of guarantees and service contracts</i>	<i>Use supplier information to return parts and order repairs</i>	
<i>Activity</i>	<i>Replace faulty parts</i>	<i>Identify the model or serial number of a component Know the suppliers of parts</i>	<i>Compare prices Place orders</i>	
<i>Main Task B</i>	<i>Support software users</i>	<i>Know details and specifications of all software loaded on the computers Know the common mistakes</i>	<i>Be able to demonstrate features of the software</i>	<i>Patience with users Helpful approach rather than superior attitude</i>
<i>Activity</i>	<i>Use software packages</i>	<i>Know the features of the software packages</i>	<i>Be able to use all the software packages</i>	
<i>Activity</i>	<i>Install updates</i>	<i>Know how to find out about updates Know how to purchase updates</i>	<i>Be able to install updates to replace existing packages Be able to demonstrate updates to users</i>	

This type of table is called a **task analysis matrix** and you can use it when you conduct your own needs analysis for the course you are going to design.

When you are identifying tasks and composing the task profile, always try to take into account future developments. In the example we have been working with, this might



be upgrading hardware in anticipation of new software issues as well as repairing it by replacing components.

General objectives

The next stage in the process of designing a training course is to define the general objectives. These are the outcomes, which your course must deliver. The general objectives derive from the task analysis and will be the frame of reference for the identification of the operational objectives and the selection of the contents and the teaching methods. They should be in consultation with the client.

General objectives perform four essential functions in the development and implementation of the course:

- they are a communication device between client, trainer and participant.
- they are the frame of reference for the contents of the lessons;
- they help in designing the teaching-learning process;
- they are the frame of reference for the evaluation strategies and criteria:

As with tasks, distinctions can be made between different types of objectives.

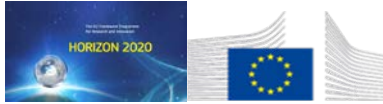
1. Objectives referring to knowledge (cognitive skills): reproducing facts or procedures, applying procedures or analysing and solving problems
2. Objectives referring to social skills, e.g. working in a team or chairing a meeting;
3. Objectives referring to psycho-physical skills, e.g. designing or operating;
4. Objectives referring to attitude, e.g. being motivated or recognising the importance of something.

An example of a general objective is:

The participant can apply first aid effectively in case of an accident in the plant.

Activity	8
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Go back to the example of the computer technician and identify the general objectives of an appropriate training programme. Remember to look at the tasks to help you decide.



-
-

Feedback

In the case of our computer technician there are 2 general objectives:

The participant can repair hardware faults in the new computers

The participant can support users of the software packages adopted by the organisation

The operational objectives will be derived from these general objectives when we come to look at designing your course in section 4

Entry level

The next step is to compare the results of the task analysis with the entry level of the participant group. What knowledge, skills and attitudes do participants already possess? So far we have considered the personal profiles of participants, but in relation to their learning styles and experiences not their experience in relation to the tasks they are to perform.

Activity 9

For the two main tasks we have identified for our computer technicians, think of 4 questions you might ask to try and determine the entry level of participants.

- 1.
- 2.
- 3.
- 4.

Feedback

For the first task, you might have considered asking:

- *about participants' experience of taking a computer to pieces or building one from parts,*
- *whether participants can list the component parts and their functions,*
- *about any computing qualifications participants may have.*

For the second, you would need to know if they have:

- *any information technology qualifications*



- *attended any previous training and at what level*
- *ever installed software on a computer and if so what packages*

Limitations and complementarity

When you have identified the general objectives of the course and established the entry level of participants you need to consider any limits or constraints, which might apply to the course you want to design. The usual constraints are time, budget, facilities and people. The next activity will help you to identify and begin to quantify some types of constraints.

Activity	10
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Write down some of the reasons why you might be constrained in the design of your training programme by the factors of time, budget, facilities and people.

Time
Budget
Facilities
People

Feedback

You may well be constrained in the development of your course because of the time participants are able to devote to the training and when they can be available. For example, could they attend for 6 consecutive days or 1 day each week for 6 weeks? Alternatively, the training may require intermittent sessions so that participants can research information or implement skills before the next session. If you are not able to facilitate the training yourself then the number, experience and availability of the trainers will be a factor you will need to consider. What is the budget for the training? It is unlikely to be as much as you would like. Do you need any special equipment, furniture etc? In the case of the computer training, we have been considering, up to date computers and software would be essential.

There may be some complimentary conditions that support your designs. Examples include direct links to other courses for more advanced skills, certification to demonstrate competence for promotion purposes, legal requirements for specific roles etc. These can all help to motivate your participants if they are presented as positive attributes of your course.



Activity 11

You should now be in a position to conduct a training needs analysis with your line manager or client. You can use the following form to help you.

You should bring this with you to the train-the-trainer seminar for discussion with your peers and tutors.

Project title	
Background information:	
<ul style="list-style-type: none"> • organisational context, • reason for the initial training demand • target group 	
Main tasks	
Additional tasks	
General objectives	
Type of objective for each of the above	
Entry level of the participants	
Additional information about the target group	
Limiting conditions and complementarity	



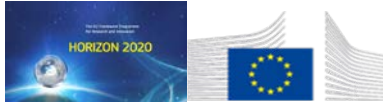
Summary

Having all the relevant information before you start to design a training course, is very important. It is very frustrating for you and demotivating for your participants if you fail to take notice of some of the points we have discussed in this section. Running a training session for something which could be dealt with by means of an aid such as a series of Help Cards for instance will be a waste of time and resources. Similarly, failure to identify entry levels may lead to some participants being lost and others bored. Being as specific as possible about the tasks the participants will need to be able to undertake, will increase the effectiveness of the training. Knowing the general objectives of the training course and the type of objective will enable you to be most effective as a trainer. Be sure to make detailed plans before you start designing your course.

Key learning points

- The first thing you need to establish whether the training is necessary.
- Next, you have to find out what the actual training needs are by conducting a task analysis
- From the task analysis you can formulate the general objectives of your training course
- The entry level knowledge and skills of the group is also very important
- There will be limiting conditions relevant to your course, but there may also be some complementary factors, which improve motivation.

Attempt the self-assessment questions before moving on to the next section.



Self-Assessment Questions

1.

Do you think Health and Safety training would be appropriate for the following?

- a) How to find the fire escape from a building
- b) How to use a fire extinguisher
- c) Writing Health and Safety plans
- d) Risk analysis
- e) Safe use of electrical plugs and sockets

2.

A laboratory worker is going to be transferred to work in a chemistry laboratory where they will handle chemicals, which are Dangerous Substances according to the regulations. The role will involve practical tests using the chemicals and disposing of them after the tests.

Answer the following questions:

- a) What are the two main tasks?
- b) What is the most important knowledge for each and the skills and attitude for both?
- c) What would you need to know about entry level?
- d) What restrictions might there be on a training session for these people?
- e) What complimentary conditions might exist?

3.

Write a general objective for an appropriate training course for the employee in question 2



Answers to Self-Assessment Questions

- 1
 - a) No - The most common solution to this problem is to display prominently notices, which show in visual form how to leave the building and where to assemble. However, it is always good practice to announce this information to all users of rooms, which could be considered as an informal training session.
 - b) Yes - It is usual to run short practical training sessions on how to use a fire extinguisher.
 - c) Yes - Writing Health and Safety plans needs a good understanding of the issues and a training course is likely to be necessary
 - d) Yes - Risk analysis is usually addressed with both theoretical and practical training sessions
 - e) No - A code of practice displayed in notice form usually suffices for everyday use of electrical plugs and sockets but training is necessary for portable appliance testing to ensure that plugs are wired safely and have not been misused.

- 2 A laboratory worker is going to be transferred to work in a chemistry laboratory where they will handle chemicals, which are Dangerous Substances according to the regulations. The role will involve practical tests using the chemicals and disposing of them after the tests.
 - a) What are the two main tasks?
 - How to handle chemicals safely
 - How to dispose of chemicals safely
 - b) What are the most important knowledge and skills for each and the attitude for both?

	Knowledge	Skills	Attitudes
Handling	Nature of the chemicals to be used. Are they hazardous and does their use constitute a risk?	Manipulative skills and accuracy	Responsible and careful
Disposal	As above plus any environmental regulations for the safe disposal of the chemicals to be used	As above	As above



- c) You would need to know of any previous training in chemistry or health and safety with respect to dangerous substances to determine the entry level
 - d) Training sessions for these people might be restricted by money but safe facilities and properly trained trainers may also need to be taken into consideration
 - e) It is possible that a certificate of competence might be important for promotion or legal compliance, which would be motivating for participants.
3. The participants will be able to work safely with dangerous chemicals



Section 3 - identifying learning strategies and teaching methods

Learning objectives

On completion of this section you should be able to:

- recognise that different people learn best in different ways
- select appropriate teaching methods for a training session
- Select appropriate teaching aids for teaching methods

Introduction

In this section you will begin to consider learning and the different teaching methods you can use during your training session. In the train-the-trainer seminar you will be able to observe some of these methods as your tutors identify them at the beginning of each element of the seminar. You can decide for yourself how effective they are and how well they might suit your purposes.

Learning Styles

Research carried out over many has shown that we don't all learn most effectively in the same way.

Kolb's work published in 1975 suggests that there are 4 learning styles:

The 'diverger' (dreamer)

These participants prefer a learning environment, in which their opinions are shared. They like to experience new situations and to view these from different angles.

The assimilator (thinker)

These participants prefer learning situations in which problems can be discussed. The aim of the discussions is to form and think through (new) ideas.

The converger (decision-maker)

These participants prefer a structured programme of an informative nature. They like to learn terms and concepts, in order to apply them later in a practical situation.

The accommodator (active worker)

These participants immediately want to see the practical applicability of the matter learned. They want to try things out and therefore should be provided with the opportunity to practice their new knowledge and skills.

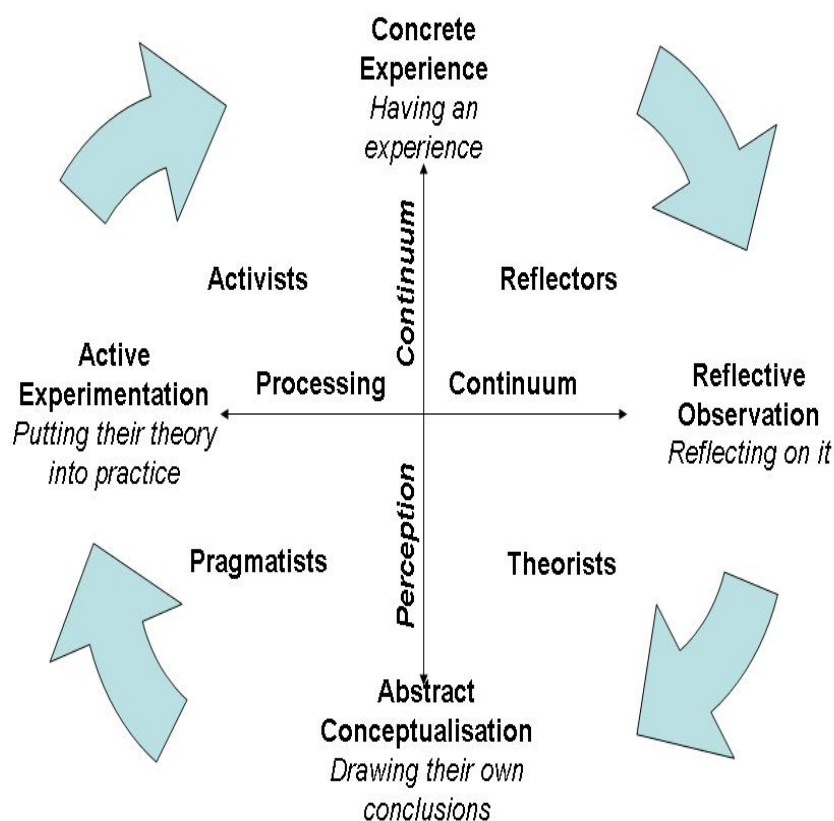
Another approach was described by Honey and Mumford in the 1980s who used Kolb's as a basis for designing their questionnaire. Their four learning styles are;

Theorist - enjoy studying the theoretical concepts

Pragmatist - prefer a practical approach to learning

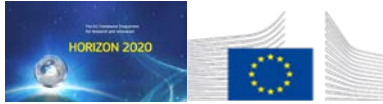
Reflector - analyse situations to determine outcomes

Activist - experiment and learn by doing



If you are interested in learning more about this subject and the work of Kolb, Honey and Mumford you can look at this [website](#).

However, now that you know different people have different learning styles, you need to consider how it could affect your training session. Answering the following



questions will help you to remain aware of this issue.

Activity 12

Identify the two players in a training environment who might be affected by the existence of different learning styles?

1.

2.

Feedback

The obvious answer is the participants but don't forget that you as the course designer and developer will have a favourite learning style or a combination of learning styles.

Activity 13

We have identified the profiles of learners and conducted a needs analysis, so how do you think that this new information about learning styles can help the design of a training course? Give two reasons why it is important.

1.

2.

Feedback

It is important to ensure that your preferred learning style does not influence your course design and that you incorporate activities in your course, which cover all the learning styles. Everyone may have a preferred style but it is important to enable participants to develop the other styles to give a holistic experience.

Teaching methods

We are now ready to consider the teaching methods you can use to construct your course. You need to understand the possibilities before you can embark on course design. This is the final tool which you will combine with the skills you have already developed in analysing your participants' profiles and conducting a training needs analysis. Together these three form the basis of your course design.

There are four criteria, which can be used to select teaching methods as you design your course:

a) Effectiveness



You should always choose the most effective teaching method for the outcome to be achieved.

Activity 14

Without even considering the variety of teaching methods available you can identify appropriate methods for some skills.

Which of the 4 teaching methods listed below is the most appropriate for teaching someone how to drive a car.

Lecture	
Video	
Practical tuition	
Distance learning workbook	

Feedback

The obvious answer is practical tuition. The notion of telling someone how to drive a car and expecting him or her to drive safely appears to be absurd. However there may be other factors involved, as you will see.

b) Attainability

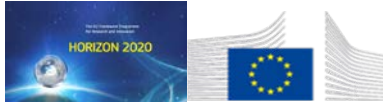
The teaching method has to be appropriate for the circumstances and therefore may not be ideal. Factors, which may influence the choice of teaching methods, include for instance, time, place, space and the equipment available.

Activity 15

Using the same 4 teaching methods given in Activity 12, select the method, which you think would be most appropriate to train a doctor in the outback of Australia about a new surgical technique.

Feedback

Video is the usual method in this case. Obviously practical tuition would be best, but often it is not possible and with someone who knows the general principles, new techniques can be demonstrated visually perhaps with a written guide. This technique using video conferencing, on line video or broadcast technology is the basis of the field of Tele - Medicine and is becoming increasingly popular.



c) Variation

Repetition becomes boring. A teaching method is only effective for a limited period of time. If you over use one technique you will demotivate your participants and not give them practice at developing all their learning styles. This is especially important when teaching adults.

d) Target group

Each group of participants is different. Some people are not used to sitting in a classroom. They need a very active programme. An open discussion should not be offered to a group where people don't trust each other. A group of beginners should not have to start with a complicated assignment. They will need information first. In client-oriented courses, you should choose teaching methods in which you can make use of the practical knowledge available in the group.

The following table gives you information about a variety of teaching methods together with their advantages and disadvantages



Teaching method	Description	Advantages	Disadvantages
<i>Case Studies</i>	A case study is a description of a working situation. The students have to analyse the situation and solve problems, answer questions etc. working individually or in groups.	<ul style="list-style-type: none"> - Link to the working situation - Practising & experimenting in a 'safe' environment - Exchanging of ideas - Motivating 	-Time consuming
<i>Coaching</i>	Form of guidance and support during task performance, in which the role of the trainer varies from showing how to do it to leaving it completely to the participant.	<ul style="list-style-type: none"> -Eliminating blocks to learning -Reflection 	-Poses high demands on the trainer (coach)
<i>CAI</i> <i>CBT</i> <i>CAL</i>	Computer Assisted Instruction. The participant independently acquires knowledge and skills. Computer Based Training Computer Aided Learning	-The participant determines time, place and pace himself	-Transfer to working situation -Development costs are high, and therefore not suitable for a small number of participants
<i>Demonstrating</i>	The trainer demonstrates a certain skill; for instance, how to operate a machine. It is also possible to provide a demonstration through a film or an instruction video.	<ul style="list-style-type: none"> -Provides a visual image -Motivates the participants more than teaching -Through a film/video you can create a representation of something which is usually hard to see (for instance in terms of location, frequency, danger) 	-The learner may not have the opportunity to practice and the demonstrated subject will be forgotten
<i>Discussion</i>	During the discussion, the conversation does not run solely from trainer to participant, but from participant to participant as well. The participants ask each other questions, complement each other, respond, etc. The essence is that participants invite each other to think about subjects, opinions, points of view and experience.	<ul style="list-style-type: none"> -Concentration of knowledge and skills in searching for a solution to a problem. -Bad solutions are rejected during the group process. -Enhancing motivation and creativity. -Through working in a group, social learning takes place. -Participants stimulate each other. -Particularly suited for affective objectives. 	-The atmosphere determines the course of the discussion. -Demands a lot of time. -A good discussion assumes a number of conditions: a) listening well, b) asking good questions and c) willingness to discuss your own opinions.



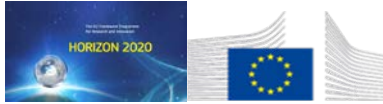
Teaching method	Description	Advantages	Disadvantages
<i>Lecturing</i>	The trainer explains something to the participant. The trainer is active, the participant more or less passive. The trainer must take into account that participants have a limited ability to listen to and store information; after 15 to 20 minutes attention drops and people 'lose contact'.	<ul style="list-style-type: none"> -Relatively cheap. -Relatively small demands on facilities. -Particularly appropriate for objectives regarding knowledge and insight. -Quickly passing on up- to-date information. -Group size is not a limiting factor. -Can be planned well. -Much information can be provided within a short time. 	<ul style="list-style-type: none"> -Little participation. -Chance of mental passiveness of the participants. -Participant is hardly invited to link the subject matter to practice. -It is hard to take into account differences in level.
<i>Teaching-learning session</i>	A teaching-learning session is a conversation in which the trainer lets the participants gain insight into certain knowledge and understanding, through a step-by-step approach. During the session, both trainer and participant are active. The trainer determines the direction and contents of the conversation. He or she asks the questions, redirects questions to others, sometimes gives comments or complementary information or explains something again. The trainer predominantly asks questions regarding understanding and application. Of course participants can ask questions as well.	<ul style="list-style-type: none"> -By asking questions, thinking processes are stimulated -Participants are involved -The trainer can assess the level of the participants understanding and adapt to this 	<ul style="list-style-type: none"> -Demands a lot of preparation time of the trainer.
<i>Observation (by participants)</i>	Participants observe fellow-participants with the intention of drawing conclusions regarding the appearance of certain behaviour or not. Observing someone in an exemplary function is also possible.	<ul style="list-style-type: none"> -More tasks can be looked at more specifically. -High involvement. 	<ul style="list-style-type: none"> -Quality of feedback depends on the openness of the group -Reviewing is very time consuming
<i>Practical exercise</i>	The practical exercise can be applied, when acquiring practical skills is essential. Through practising these skills, the participant learns the skills. The trainer provides instruction, assigns the exercises and organises the review (e.g. individual feedback or learning	<ul style="list-style-type: none"> -Link to working situation. -Possibility for repetition. 	<ul style="list-style-type: none"> -Logistic conditions cannot be realised everywhere -Time consuming -It is hard to



Teaching method	Description	Advantages	Disadvantages
	discussions)		directly check the execution of the assignments
<i>Role play</i>	In a role play a number of persons attempt to enact a problem situation within a given framework and according to prescribed roles. The information in a role play consists of a general situation outline and a description of a number of different parts ("you are the action leader of and you would like to see..."). Additionally, there are several observers. They observe the role play on the basis of an assignment. Their information is important for the review.,	Provides insight into one's own actions and those of others. Experimenting with possible approaches. Appropriate for practising, social skills. Practical situations are easily imitated and convenient to practise (transfer). Situations which do not occur very often can be practised.	Not appropriate for controversial subjects. Time consuming. Ability to identify oneself with a part and enthusiasm is required from the participants.
<i>Simulation</i>	Experimenting in an imitated situation which strongly resembles reality or is an intentional simplification.	-Safety. -Possibility for repetition and availability. -Training for situations which do not occur very often in practice -Degree of difficulty or complexity can be changed -Highly transferable. -Also appropriate for management training. -Application of the theory can be tested. -Motivating.	-Hard to determine the results (criteria must be realistic). -Time consuming.
<i>Self-study</i>	The participants independently acquire knowledge and skills. This can, for instance, be achieved through: studying a book, following an audio-visual presentation without further guidance or complete a CAI-programme	-Participant can determine, time, place and pace themselves.	-Little opportunity to adapt to current developments. -Some participants find it difficult to work individually.
<i>Group work</i>	The participants work together in a	-Concentration of	-The composition



Teaching method	Description	Advantages	Disadvantages
<i>(general)</i>	group. Either they work on the same task or on complementary tasks.	<p>knowledge and skills in searching for a solution to a problem.</p> <ul style="list-style-type: none"> -Social learning takes place. -Participants stimulate each other. -People feel more secure when they are alone (group decision). -Bad solutions are rejected in the group process. -Participants exchange experiences in the group. 	<p>of the group is of major importance; a wrong composition can negatively influence the learning process.</p> <ul style="list-style-type: none"> -It is difficult to coach and supervise several groups at the same time. -It is difficult to discover what the knowledge, skills and attitudes of the individual participants are.



You can use this table when you come to design and develop the training course, which forms part of the assessment for ESPrIT. Each course you design will be different and may involve a variety of teaching methods. The next activity will help you to practice choosing appropriate teaching methods for a variety of tasks.

Activity	16
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Use the table to choose an appropriate teaching method for each of the following tasks

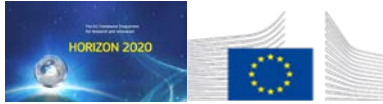
Risk analysis	
Instruction about the European Union or the new legislation on health and safety	
Laboratory techniques	
Strategic planning	
Operational planning for implementation at national, regional or company level	

Feedback

You can use a variety of teaching methods, but some appropriate ones might be, case studies, demonstrations or simulations for risk analysis, a short lecture for instruction about the EU or OSH legislation, Practical exercises, coaching or demonstrations for laboratory techniques, role play focusing on the different roles in a decision making arena for the strategic planning and case studies as the basis for group discussions when planning for implementation of OSH policy.

Teaching Aids

As well as choosing the most appropriate teaching method, a training session can be made more effective by the use of teaching aids. Good teaching aids can function as support, add information and add variety. The following five teaching aids are most widely used.



Power Point slideshow

This is the regular slideshow we see often made on a computer and projected on screen through a beamer. Slides can easily be produced, prior to a session. They are not suitable for details and the most common mistakes users make are to put too much information in too small writing.

Hand-outs

Hand-outs are short informative texts usually on a single sheet of paper. They are suitable for providing information e.g. tables, sets of conclusions, sets of leading questions and schemes. Hand-outs can be prepared prior to a session. Examples of hand-outs are:

- a complicated scheme;
- a short article;
- a text of more than ten lines;
- the text of a presentation.

Flip chart

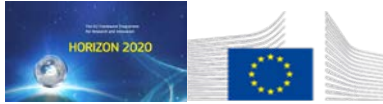
A flip chart consists of a board on a stand to which large sheets of paper are attached. The sheets can be flipped over one by one. It is suitable for key points, key words and simple schemes. It can also be used to make lists of points. The papers can be prepared in advance but the most common use for flip charts is to record participant input during a session. These can then be transcribed at a later date and circulated to all participants. They are a very good way of letting participants see that their contributions are relevant and valued.

Black- or white board

These boards are found in the front of most classrooms. They are suitable for demonstration of calculations, for making lists of points and for putting down notes or schemes that are important to remember. They would usually require participants to copy down the information at the time as they will normally be cleaned at the end of each session. Nowadays also digital blackboards become fashion. The writing can then easily be copied, printed and distributed.

Video

There are many uses for videos, but they should be used sparingly. Short clips as case studies are good. Video demonstrations of good practice and as visual reinforcement work well, but long video presentations reduce interactivity and should be avoided.



Activity 17

In what capacity might you use teaching aids during a case study activity of risk analysis?

Feedback

You could prepare a hand-out describing the situation; use a flip chart to collect participants' opinions about solutions to the problems posed and a video to demonstrate good practice. There will be many other possibilities and their worth should be judged by how much value they add to the activity.

Summary

There is a lot more to learning than you might imagine and personal learning styles may well determine the effectiveness of your sessions. When the learning is not your own, but someone else's, it is not easy to plan what will be most effective for them without allowing your own preferences to influence you. You will need to consider your preferred learning styles as well as those of your participants. You need to understand the range of teaching methods available to you in order to match the most appropriate teaching method to the tasks your learners need to be able to accomplish. A variety of visual aids can be used to add value to the teaching method and enhance your training sessions.

Key learning points

- Your participants will have different learning styles
- You must not let your own learning style restrict the design of your training course
- There are many teaching methods you can use and you should choose one which is appropriate for the task your participants need to perform
- Teaching aids can help to make the teaching method more effective.

Attempt the self-assessment questions before you move on to the next section



Self-Assessment Questions

1.

Match each of the following teaching methods to the learning style for which it would be most suitable.

Practical tuition

Group work

Discussion group

Lecture

2.

List 6 factors that might influence your decision as to which teaching method to use.

3.

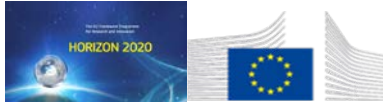
Identify one appropriate teaching aid for each of the following situations and give a reason for your choice:

A lecture to 60 people

A group discussion

A teaching and learning session

A role-play



Answers to Self-Assessment Questions

1.

Practical tuition	Accomodator
Group work	Assimilator
Discussion group	Diverger
Lecture	Converger

Look back at the definitions to see how closely they fit.

2.

You should have listed 6 from:

Participants' profile, group profile, trainer's preferred learning style, learning styles of participants, effectiveness, attainability, variation, target group, availability of suitable teaching aids

3.

Power Point slides are the most common teaching aid in this situation although many staff choose to give hand-outs so that participants don't have to copy notes and can give the lecturer their full attention. Short video clips are also suitable in some lectures.

A topic for a group discussion can be presented on a hand out and key points noted on a flip chart. Videos are unlikely to be used and a black or white board is less flexible than a flip chart, but could fulfil the same function if the latter was not available.

A flip chart, black board or white board would be appropriate for making notes of the points arising from the interaction between tutor and participant.

The scenario may be given to participants in a role-play in the form of a hand-out. Observers might use a flip chart to record points, but players in role-play would not normally use teaching aids.



Conclusions

You have now completed Part 1 of this Unit on training.

You should have the knowledge and skills to complete the tasks for the train-the-trainer seminar and to contribute to the activities your tutors will lead.

As you study the other unit of ESPrIT and take part in the activities at the train-the-trainer seminar, always reflect on your own learning. What have you enjoyed? What have you found easiest? What did you not like? Try to be objective because your own experiences are invaluable when you come to design a training course for other people. Talk to as many people as you can. Constructive comments on your ideas from fellow participants and tutors will help you to produce a good training programme.

In Part 2 you will learn how to design a short training course, develop and deliver it and then evaluate its effectiveness. You will undertake the preparation for your micro teaching activity by working through the activities in Part 2.