

Appendix 2. Learning Plan

The following programme provides a general overview of the learning activity as planned in this phase of the research. It will be better defined and modified according with the results of the focus groups, which will be carried out before the learning activity starts.

**University of Parma
Degree Course in Environmental Sciences**

Information literacy learning activity

Academic Year 2004/2005

INTRODUCTION

This information literacy learning activity has the aim of supporting students in developing the information competence needed for their study and for their future professional life.

Being information literate means being able to identify an information need, to formulate it, to choose the most suitable information sources, to use them, to evaluate information in a critical way, to synthesise and communicate it to other people. Information competent people master the tools for learning and hold the foundations for self-improvement and lifelong education.

The course is part of the official curriculum at the degree course of Environmental sciences, and is a compulsory activity for 2. year students.

The class activity will take place from October 4th to October 8th 2004, from 9 a.m. to 1 p.m. at the IT laboratory of the Campus (Parco area Scienze 24/a).

Students must participate in the 75% of class activities and will be involved in a group activity during the afternoon hours.

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LEARNING OUTCOMES

The expected learning outcomes are the following:

1. To become independent and competent in the information seeking and research process, process, being able to:

- Identify an information need.
- Articulate and express it.
- Choose the most suitable information sources and the tools available to access them.
- Use effectively some information tools (OPAC, Databases, Search engines and directories) .
- Synthesise the search results .
- Effectively communicate research findings .

2 . To improve critical thinking skills and develop a reflective attitude, becoming able to

- Evaluate one's own learning.
- Identify strengths and weaknesses of own learning style and working behaviour.
- Recognise and try possible different options, demonstrating flexibility and open-mindness.

3. To improve ability of working in group, becoming able to

- Analyse an information problem in co-operation with other people.
- Plan together search activities.
- Define roles and strategies.
- Manage time.
- Understand and appreciate different approaches to problems.
- Synthesise different opinions.
- Manage conflicts and negotiate solutions.

CONTENTS

The learning activity will develop the following issues:

- The world of information.
- How scientific information is created, diffused and disseminated.
- The research process and the information seeking process.
- Sources of scientific information.
- Information tools:
 - On line library catalogues.
 - Bibliographic databases.
 - Publishers' full text-databases.
 - The Internet and the Web as information tools.

METHODOLOGY

This learning activity is student-centred and requires an active participation in class and group work. Bibliographic search methods and the use of information tools will be learnt by doing, working individually, in pairs and in group, with and without the support of the teacher.

The analysis of findings, the critical reflection on one's own search method, the comparison between different approaches, the self-evaluation, will foster the acquisition of competence and self-confidence in the information seeking and research process.

The research process itself, as well as the group work, will stimulate the reflection and the development of critical thinking skills and meta-cognitive abilities. A scaffolding method will be adopted, gradually decreasing the rate of lectures in favour of self regulated learning.

Working in group will stimulate students to share their knowledge and skills and to communicate their doubts and difficulties. They will be encouraged to analyse their learning styles and working methods in the light of other people's experience and this will empower critical thinking skills and encourage a reflective attitude.

A “deep learning approach” will be chosen, oriented to finding the personal relevance of ideas, and to reflecting on them. This approach is founded on intrinsic interest, a sense of ownership and an absence of anxiety. It will be favoured by:

- § Explicitly describing the learning outcomes
- § Providing clear and explicit explanations
- § Recalling prior knowledge
- § Demonstrating the potential relevance of learning
- § Offering students choice
- § Structuring a reasonable student workload
- § Encouraging students to express their thoughts, doubts and feelings
- § Provide them with feedback in a blame-safe environment
- § Offer them the opportunity to analyse and evaluate other students’ performances

ACTIVITY

Class activity

The class activity will provide students with the knowledge and skills needed to face the information problems related to their group work. The lecture time will be limited, giving space to practice, pairs experience, questions and discussion. Each topic will be introduced as a possible answer to an information problem and will be related to students’ prior knowledge and skills.

Group activity

The group work is the core of this IL learning activity. Students will be divided in groups of four/five students. Each group will choose a topic related to one of the following broad issues :

Ecosystem – Biodiversity - Management of protected areas

The groups will carry out a piece of research, using both online and print resources and adopting the information search tools learnt through the class activity. Students will work on their group research every day, after the class activity (from 12 a.m. till 1 p.m.) with the support of the teacher. During the afternoon they will meet in the library or in the IT laboratory and will continue their work. The teacher will be available in the library for giving support when needed. The groups have to prepare:

1. – *A list (from 10 to 25) information sources related to the problem chosen.*

This list has to be annotated and each item must be:

- correctly cited and described;
- annotated with observations about the information tool and the search strategy adopted to identify and locate it;
- critically evaluated in relation to the information need.

2. – A report describing the information seeking process and the group work.

This has to be a journal, critically annotated, describing:

- the phases of the work;
- the problems arisen during the work and how they have been solved;
- the choices made with related motivation;
- a self-evaluation underlining:
 - strengths and weaknesses;
 - what would be done differently in the light of this experience

At the end of the course (Friday, 8th) the groups will present their work to the class. Each group will have 20 minute at their disposal, and will be allowed to choose the type of presentation (Power point slides, Web site or other presentation tools). The class, together with the teacher, will assess the presentations and a reciprocal feedback will be provided.

Individual reflective activity

1. – Learning journal

Students are required to write a journal, reporting what has been learnt during the day:

- Main points, relevance for study and work , critical aspects, unanswered questions.
- Impressions, feelings, thoughts about the class activity and the group work.

2. - Concept map

The final day of the course, students will draw a concept map, relating each others the contents learnt during the activity.

ASSESSMENT AND EXAMINATION

The assessment is based on the group work and the individual activity as well. An individual examination will take place in November.

Students will be provided with feedback on their individual and group activity. The evaluation of students' papers will take in account their acquisition of knowledge and skills as well as the development of a critical, reflective attitude. For the latest one, the teacher's assessment will be coupled with the students' self evaluation.