



CENTRO STUDI
Villa Montesca



YSE

*Yourvid Save Energy
Edu-Video
Methodology*



GENERAL CONTEXT

The aim of this methodology is providing a didactic framework to be used as a basis for the edu-video which goals are approaching the scientific studies about the Sustainable Energy and/or Renewable Energy in Secondary school.



The idea is to use a ***Problem Based approach*** in order to increase awareness of students and teachers about the consequences of the daily use of the energy produced in non-renewable sources and to increase the knowledge about how it is possible to concretely intervene tailoring a single correct environmental friendly behaviour.



Some idea about PBL



The Problem Based Learning approach is a *student-centred educational strategy* in which students collaboratively solve problems and reflect on their experiences.

Characteristics of PBL are:

- ✓ Learning can start from defining practical problems
- ✓ Students can work in collaborative way
- ✓ The new role of teachers is to be "facilitators" of learning.



It is useful including in the educational offer opportunities like: creating stories; discussion about cases; concept mapping; causal mapping; cognitive hypertext crisscrossing; analogy making; and question generating.

In PBL, *students are encouraged to take responsibility for their group and to organize and direct the learning process* with the support of a tutor or instructor. Advocates of PBL claim it can be used to enhance content knowledge and foster the development of communication, problem-solving and self-directed learning skill.



Video and PBL



The first step of PBL is represented by a so-defined **scenario**.

It is possible (and it is commonly used) to utilize a video to launch a scenario in the PBL experiences. The scenario has the goal to stimulate the discussion about a topic the class is willing to discuss.

So much, the use of videos is quite common in describing explicative phenomena that can be used as supporting documents.



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How to use PBL in creating Edu-videos



The Problem based approach can be used for involving the students making edu-videos and it results very profitable taking the class to be aware about the scientific method.



It is very relevant to stress that videomaking is an educational activity and the quality of the products in itself has a secondary place in the didactic pathway.

What makes a video successful and effective is the cooperative work the students carry out.

That should be an indication to take into account also in judging the final results of the European Competition.





The methodology phases

Introduction

The YSE methodology shall consider different aims:

- realizing a technical experience about how to make video
- making aware the students and their families about correct behaviours in facing the daily use of energy



It is better to recall that the YSE approach tries to adapt the PBL methodology stressing more the opportunity represented by the use of Video in class. With PBL the teacher presents a problem, not lectures or assignments or exercises. Since the students are not handed "content", their learning becomes active in the sense that they discover and work with content that you determine to be necessary to solve the problem.

The video will be considered the result of the Cooperative work and it will contain the result of the PBL pathway.



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One of the most relevant obstacle can be represented by the necessity to reshape the role of the teacher.

*In that sense, in PBL, the **teacher acts as facilitator and mentor, rather than a source of "solutions."***



Probably we need a short period of work with the teachers involved in order to make theme aware about the PBL opportunities and procedures, if they have not already afforded any PBL experience.



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We have just to remember that:

Problem based learning will provide the students with opportunities to:

- *examine and try out what the students already know about the problem*
- *discover (by themselves) what they need to learn*
- *develop their personal skills for achieving higher performance in teams*
- *improve their communications skills*
- *state and defend positions with evidence and sound argument*
- *become more flexible in processing information and meeting obligations*
- *practice skills that they will need after their education*

However, in order to be practical, the YSE approach can “simplify” the PBL scheme reshaping the procedures and paths in order to reach the result without introducing not useful complexities.



Project Phases

Thus, the project can be structured in the following phases:

Phase 1 – Setting

The class is divided in groups. Each group cares an aspect of the video making.

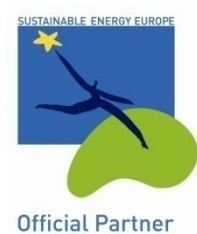
The learning setting helps and encourages learners to practise and develop key skills across the full range of managerial skills.

1. **Management of Self.** The activity required students to complete a large and unstructured task within a set timeframe and within a number of constraints and limitations.

2. **Management of Others.** In the group setting, students were required to work with others and maintain a good working relationship. They have to defend their own stance, negotiate and give and accept criticism.

3. **Management of Information.** In this regard the activities required students to apply the various technologies to seek information and to deal with the large amounts obtained.

4. **Management of Task.** Finally in terms of managing the task, these activities compelled students to identify sub-tasks and to conceptualise what was being asked and how it could be dealt with.



In practice

Phase 1 – Setting

The class is divided in groups. Each group cares an aspect of the video making.

The first phase shall consider these sub-steps:

- **Defining the role and the task of the Groups** (plot writers, video-makers, documenters, interviews managers, sound managers etc...) (this step should be the result of a negotiation in order to allow the students to choose their favourite skill)

- **Defining if the students need** a specific training and need to use the project resources (the on-line course “how to make videos)- *probably during the “negotiation” step, they and the teacher/s have been already made aware if they have some technical skills or not-* and **defining the time-schedule** in order to have sufficient time for every activities (it could be also an experience about how generally to plan the activities)





Phase 2 - First Defining the problem

Explore the issues: The teacher introduces an "ill-structured" problem and he/she discusses the problem statement and list its significant parts.

The Teacher and the students have at this stage different roles (someone is "technician" someone is "writer", someone is researcher)





In practice

Phase 2

Explore the issues: The teacher introduces an "ill-structured" problem and he/she discusses the problem statement and list its significant parts.

In this phase it is useful to foresee a **(sub-step 2.1) specific and deep discussion** about the problem during which the teacher **(sub-step 2.2) introduces the Problem** and the students have to realize and write **(sub-step 2.3) what they already know about the issue proposed.**

We shall explain very carefully that the aims of the experience is how to make video and study the problems related to a better use of the energy, both aspects has to be considered properly to not incur in the risk of having most attention focused on the video making experiences, probably considered by the students more attractive



Phase 3 – Discussion about the problem in order to define the storyboard of the Video

The storyboard is defined using



1 - List "What do we know?" What do they know to solve the problem? This includes both what the students actually know and what strengths and capabilities each team member has.



2 - Develop, and write out, the problem statement in their own words (storyboard): A problem statement should come from the group's analysis of what they know, and what they will need to know to solve it.

3 - Solution. The storyboard represents the supporting documentation of the solution of the problem the video describes. The group/class may need to present the findings and/or recommendations to a group or the other classmates. This should include the problem statement, questions, data gathered, analysis of data, and support for solutions or recommendations based on the data analysis: in short, the process and outcome.

In this phase supporting documentation can be shoot, image, interview with experts etc ... while the final document shall be the storyboard and the definition of the communication strategy for the video (documentary or fiction or video-spot....)





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In Practice

Discussion about the problem in order to define the storyboard of the Video

The storyboard is defined using

Sub step 3.1 Developing and Writing out the storyboard:

The *storyboard* is “graphic organizer such as a series of illustrations, written notes or images displayed in sequence for the purpose of pre-visualizing a motion picture or interactive media sequence, including website interactivity”.



The Storyboard shall contain:

- The description (in brief) of the focused problem
- the proposed Solution as the result of the students' findings
- the video making strategy display in concrete
- the needed technological resources

Sub step 3.2 re-negotiation of the task (if needed): It is possible that at this stage some students, having acquired more awareness about the project, would like to re-think their roles. This is the moment (and the decision is up to the teacher) for re-negotiating!



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In Practice

Discussion about the problem in order to define the storyboard of the Video

A storyboard template



Shot: _____ Framing: _____

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Duration: _____ Shot size: _____
Angle: _____ Transition: _____

Audio 1: _____
Audio 2: _____

Shot: _____ Framing: _____

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Duration: _____ Shot size: _____
Angle: _____ Transition: _____

Audio 1: _____
Audio 2: _____

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Duration: _____ Shot size: _____
Angle: _____ Transition: _____

Audio 1: _____
Audio 2: _____

It is possible to download some SB templates at
http://www.jasonohler.com/pdfs/storyboard_template.pdf



Phase 4

Technical realization and video presentation and publication

The final product is realized, and it is presented and published.



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Phase 5 - Presenting and defending the conclusions for their validation:



The goal is to present not only the conclusions, but also the foundation upon which they rest.

The members of the group will have to present clearly both the problem and the related conclusion, summarizing the process used, the options considered, and the difficulties encountered. In this phase the teacher (or other expert) will have to check the scientific and didactic contents of the storyboard for their validation: The teacher/expert may also require further information and/or adjustments.

Sharing the findings is very important and it is an opportunity in demonstrating what the class has learned. For this reason the feedback on this statement from the instructor is very important.



In practice
Phase 5 - Presenting and defending the conclusions for their validation:

Sub phase 4.1 **Discussion in Class with the aim to present and defend the conclusions:** It could be very interesting for the class to present the video to a public of peers or to a group of teacher not involved in the previous phases. The discussion should focus also on the efficacy of the video and its potentiality to transmit correctly the contents single out during the realization process.

It is possible also to divide the discussion in two sub-phases, presenting first a sort of beta-version of the video in order to have collect suggestions and to test the its efficacy and then dedicating another meeting to presente the final version .





Final comments

The video has to be the result of the cooperative work and what is very important is the general involvement of all the members, not just of the skilled ones.

It is a suggestion that the topic chosen for the video should be simple and related to the daily life of students. It is quite relevant that the phenomena described happen concretely in the students' own environment.