

# Reorienting University Curricula in Multiple Disciplines to Infuse SDGs (WP7) Applying the DeCoRe+ Methodology

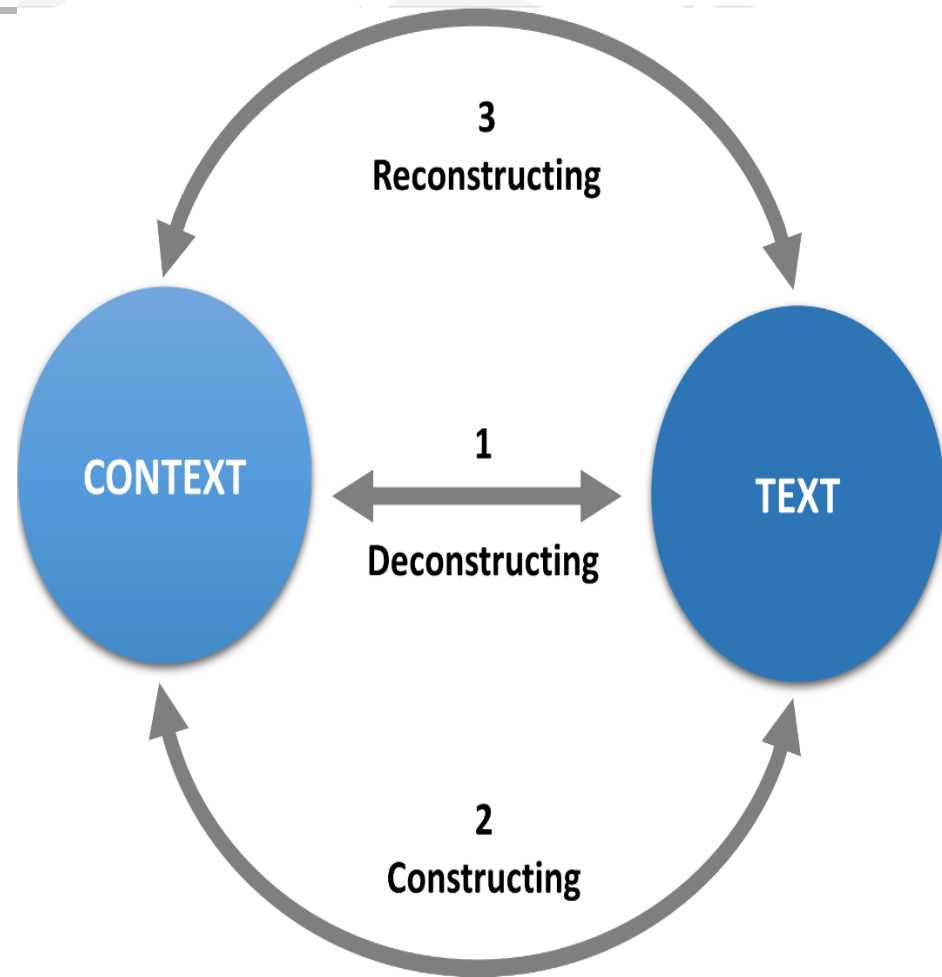
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Co-funded by  
the European Union



“READING THE **WORLD** ALWAYS PRECEDES READING THE **WORD**,  
AND  
READING THE **WORD** IMPLIES CONTINUALLY READING THE **WORLD.**”  
PAULO FREIRE





# Contextualisation Versus Decontextualisation

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- Decontextualized settings refer to assessments that are isolated from what is happening out there (e.g., locally and globally). In contrast, contextualized settings refer to assessments presented within the context in which they would naturally occur (real world).

**Paulo Freire explains this by saying that *if someone teaches Portuguese, they must teach the use of accents, subject-verb agreement, verb syntax, noun cases, pronouns, and personal infinitives. However, as Freire said, language is not just rules and syntaxes. Language can be a means or a vehicle to understand what is happening.***

# An Example

A statement by UNICEF says "Every 5 minutes, a child dies because of malnutrition."

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- For example, a conditional statement could be: "If we invest in comprehensive nutrition programs, then we can significantly reduce the number of malnourished children."

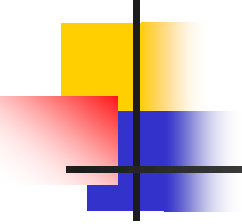
This statement illustrates a cause-and-effect relationship, which is central to understanding the implications of math, like numbers and percentages, and articulating them effectively in a local/global problem (Context) such as to SDG3 (Health and Well-being).

## **Let's transfer the conditional statement into a math problem**

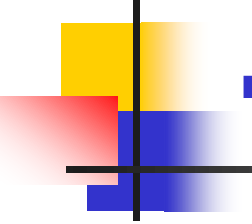
A community is considering investing in a comprehensive nutrition program to address malnutrition among children. Currently, there are 1,200 children in the community, and it is estimated that 30% of them are malnourished.

If the investment in the nutrition program is expected to reduce the number of malnourished children by 40%, how many children will still be malnourished after the program is implemented?

# The steps in solving the math problem

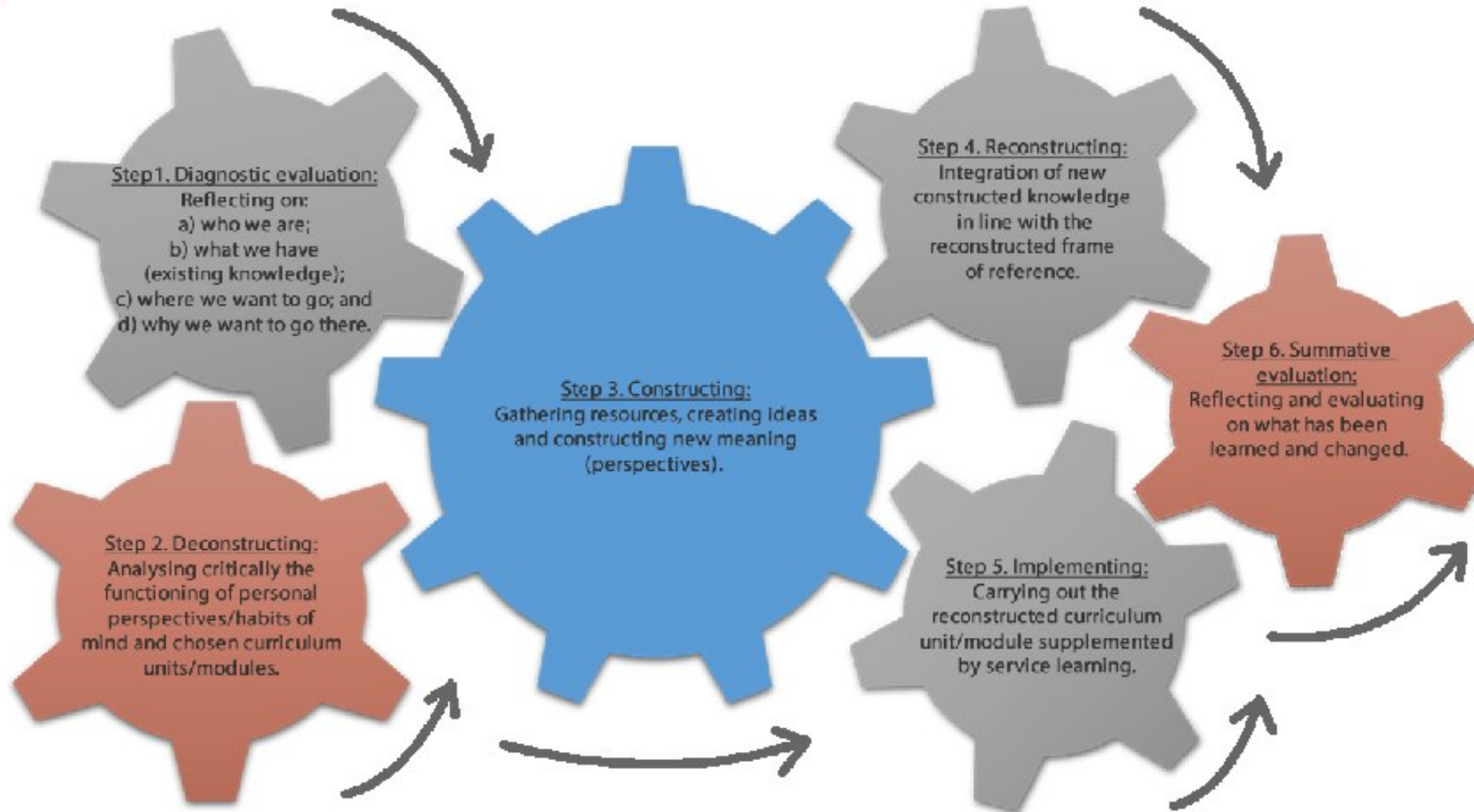
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- **Step 1:** Calculate the current number of malnourished children.
  - **Step 2:** Determine the expected reduction in the number of malnourished children after the program.
  - **Step 3:** Subtract the expected reduction from the current number of malnourished children to find the final number of malnourished children after the program.
  - **Solution Steps:**
    1. Current malnourished children: (  $0.3 \times 1200 = 360$  )
    2. Expected reduction: (  $0.4 \times 360 = 144$  )
    3. Remaining malnourished children: (  $360 - 144 = 216$  )
  - **Answer:** After the program is implemented, there will still be 216 malnourished children in the community.

# Comments

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- By using conditional statements, we can express the potential outcomes of our actions or inactions related to health and nutrition. Such statements empower us to envision the impact of our decisions and engage in meaningful discussions around SDG 3.
  - Learning to articulate these connections fosters a deeper understanding of language and quantitative concepts, which are critical in advocating for global policies to improve child health and nutrition.
  - This connection between math, language, and SDGs strengthens learners' analytical abilities and language skills, enriching their capacity to communicate and advocate for change.

# Contextualizing through the DeCoRe+ Methodology

<https://www.rcecrete.gr/sdgstools/>



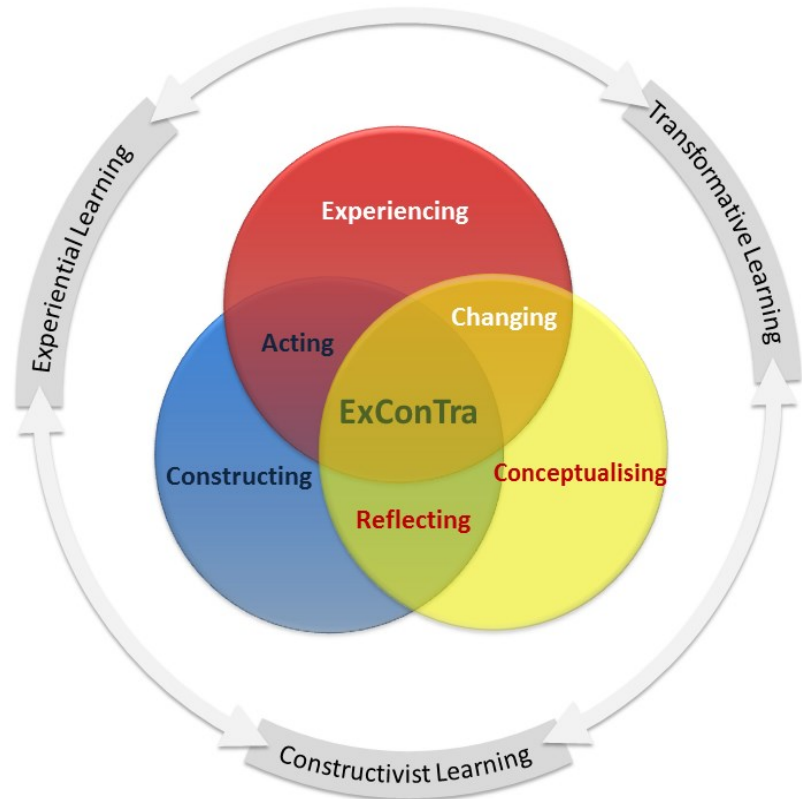
*Table 1. The DeCoRe plus processes*

DeCoRe+ Processes	Key concepts in each process
Diagnostic Evaluation	Reflecting on: a) who we are; b) what we have (existing knowledge); c) where we want to go; and d) why we want to go there.
Deconstruction	Analysing critically the functioning of personal perspectives/habits of mind and chosen curriculum units/modules.
Construction	Gathering resources, creating ideas and constructing new meaning (perspectives).
Reconstruction	Integration of new constructed knowledge in line with the reconstructed frame of reference.
Implementation	Carrying out the reconstructed curriculum unit/module supplemented by service learning.
Summative Evaluation	Reflecting and evaluating on what has been learned and changed.



# The Theoretical Underpinning of the DeCoRe plus Curriculum Design & Development

- Active Learning
- Critical & Transformative Pedagogy
- ExConTra Paradigm

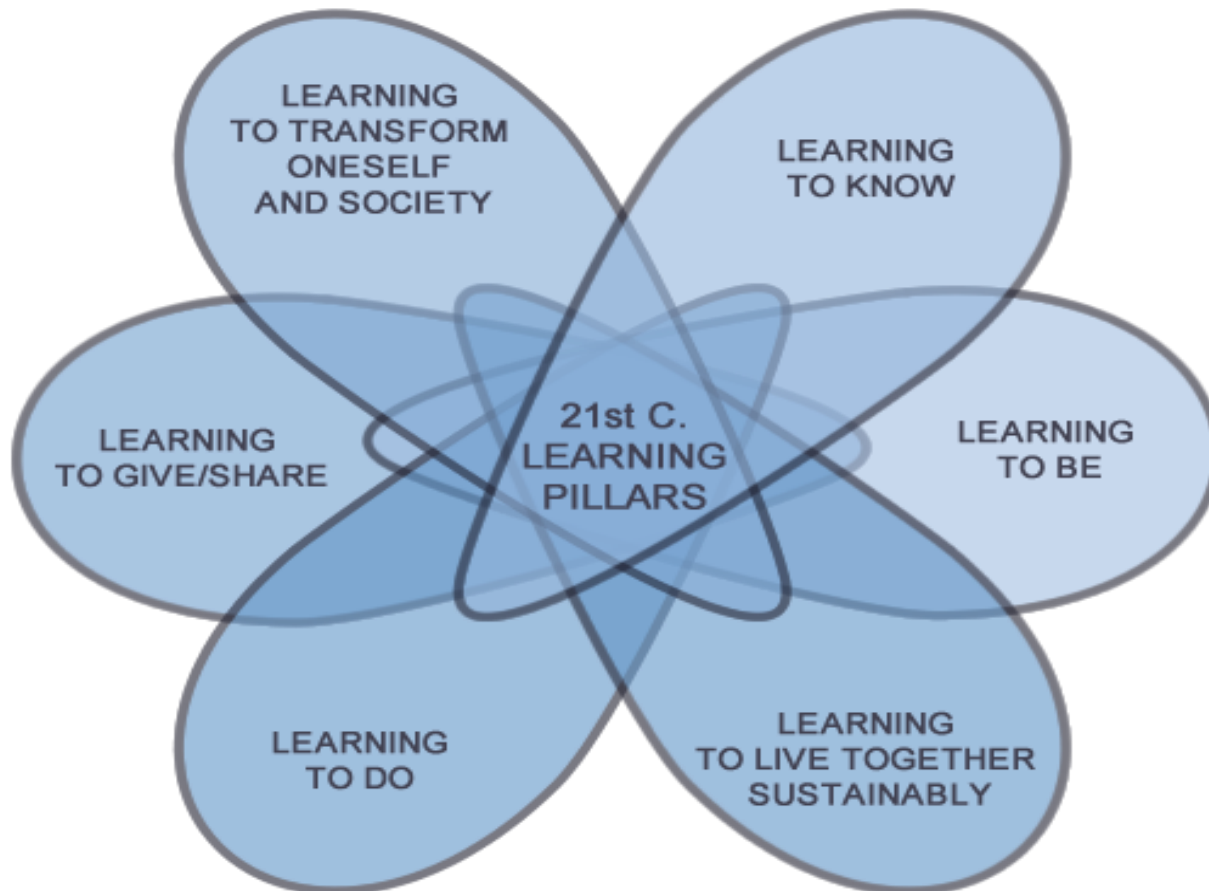


PART A. DECONSTRUCTION PROCESS		PART B. CONSTRUCTION PROCESS
<b>1. COURSE CONTENT</b>  Title of the course: School: Department: Program of Study: Type of course ( <u>e.g.</u> compulsory / elective): Name of Instructor:		Based on the detailed and critical answers to the deconstruction process (Part A column), start the construction process in the cells below, by recording the main points that need changes and describing your proposals and the resources to be used in the reconstruction process.
<b>1.1 What are the expected learning outcomes and <u>competences</u> of the course? Are they clearly stated and appropriate to the target learners?</b>	Write here the expected learning outcomes and competencies the course seeks to achieve.  YES / NO (JUSTIFY)	
<b>1.2 Is the course's content connected to all learning outcomes and <u>competences</u> stated?</b>	YES / NO (JUSTIFY)	

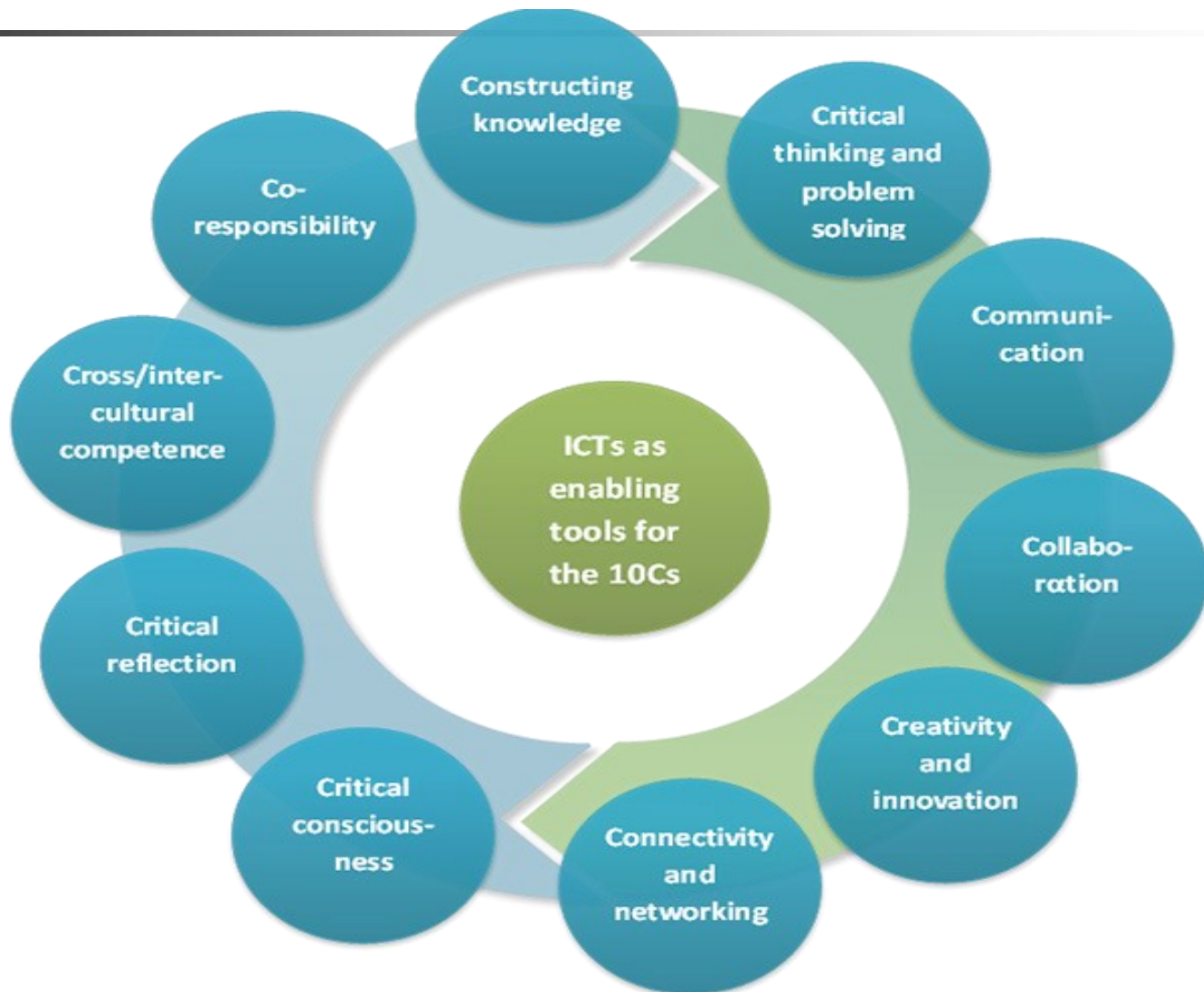
<p><b>1.3 What dynamic activation, reflection, and engagement elements enabled by ICTs (e.g. digital storytelling, robotics, apps, scratch, games) are included in the course?</b></p>	<p><b>Provide examples</b></p>	
<p><b>1.4 Are the learning activities: 1) student-driven; 2) connected with other subjects (e.g. STEAM) and 3) intergenerational?</b></p>	<p><b>YES / NO</b>  <b>If YES, specify what and how.</b></p>	
<p><b>1.5 Are the course topics and learning activities related to real-life issues?</b></p>	<p><b>YES / NO</b>  <b>If yes please explain the connections.</b></p>	
<p><b>1.6 Are the course topics and learning activities related to the four dimensions of sustainability justice?</b></p> <p><b>See background papers on sustainability jus</b></p>	<p><b>YES / NO</b>  <b>If yes please explain the connections with each of the pillars.</b>  <b>For the four pillars of sustainability justice:</b></p> <ol style="list-style-type: none"> <li>1. Environmental justice - ...</li> <li>2. Social Justice - ...</li> <li>3. Economy justice - ...</li> <li>4. Cultural justice - ...</li> </ol>	

<p><b>1.7 Is the content of the course and especially the learning activities connected to the six learning pillars for sustainable development?</b></p>	<p><b>YES / NO</b>  <b>If yes please explain the connections with each of the pillars.</b>  <b>For the six pillars of sustainable development:</b>  1. Learning to know...  2. Learning to be ...  3. Learning to do ...  4. Learning to live together sustainably ...  5. Learning to transform oneself and society ...  6. Learning to give and share ...</p>	
<p><b>1.8 Is the content of the course and especially the learning activities connected to transversal such as those included in the 10Cs model?</b></p> <p><b>Are these skills embedded in real-life issues and enabled by ICTs?</b></p>	<p><b>YES / NO</b>  <b>If yes please explain the connections with each of the 10Cs.</b>  <b>For 10C's:</b>  1. Collaboration ...  2. Communication ...  3. Critical thinking ...  4. Creativity ...  5. Cross-cultural understanding ...  6. Connectivity ...  7. Critical reflection ...  8. Critical consciousness ...  9. Co-responsibility....  10. Constructing knowledge ...</p>	

# The 6 Pillars of Learning

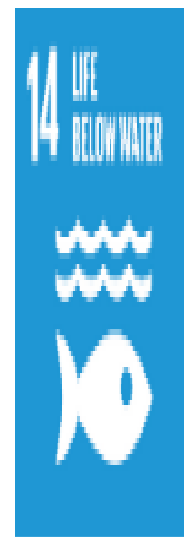
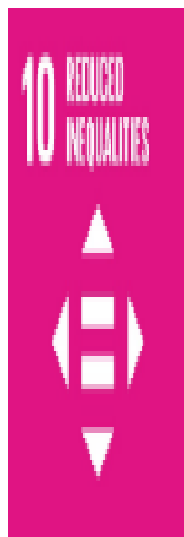
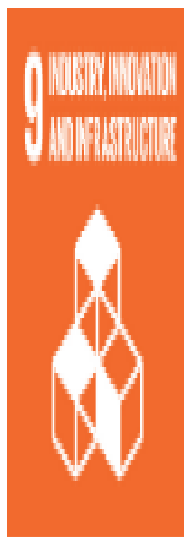
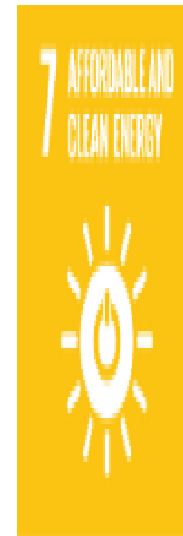
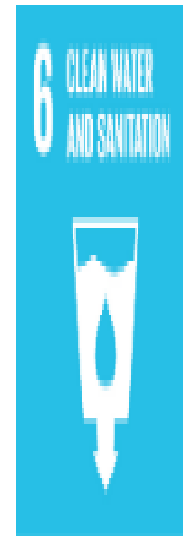


# The 10Cs Model



<p><b>1.9 Which SDGs are explicitly and/or implicitly addressed through the course?</b></p> <p><b>Are they enabled by ICTs?</b></p> <p><b>Provide examples</b></p>	<p>SDG1 No Poverty <input type="radio"/></p> <p>SDG2 Zero Hunger <input type="radio"/></p> <p>SDG3 Good Health and Well-being <input type="radio"/></p> <p>SDG4 Quality Education <input type="radio"/></p> <p>SDG5 Gender Equality <input type="radio"/></p> <p>SDG6 Clear Water <input type="radio"/></p> <p>SDG7 Clean Energy <input type="radio"/></p> <p>SDG8 Decent Work and Economic Growth <input type="radio"/></p> <p>SDG9 Industry Innovation and Infrastructure <input type="radio"/></p> <p>SDG10 Reduced Inequalities <input type="radio"/></p> <p>SDG11 Sustainable Cities and Communities <input type="radio"/></p> <p>SDG12 Responsible Production and Consumption <input type="radio"/></p> <p>SDG13 Climate Action <input type="radio"/></p> <p>SDG14 Life Below Water <input type="radio"/></p> <p>SDG15 Life on Land <input type="radio"/></p> <p>SDG16 Peace, Justice, and Strong Institutions <input type="radio"/></p> <p>SDG17 Partnerships for the Goals <input type="radio"/></p>	
<p><b>1.10 Are project-based learning and problem-based learning strategies integrated within the learning activities?</b></p> <p><b>Are these strategies connected with real-life issues or the SDGs?</b></p>	<p>Yes / No</p> <p>In the case of Yes- Provide a short description</p>	

# Sustainable Development Goals





<p><b>1.11 What kind of knowledge interest is promoted in this teaching/learning unit/module?</b></p>	<ol style="list-style-type: none"> <li><b>1. Technical/instrumental knowledge (transmit information-knowledge); (Yes/No – explain)</b></li> <li><b>2. Practical knowledge (focus on deep understanding of the subject); (Yes/No – explain)</b></li> <li><b>3. Emancipatory knowledge (creating conditions for empowerment and change towards a sustainable society). (Yes/No – explain)</b></li> </ol>	
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**2. METHOD OF ASSESSMENT**

<p><b>2.1 How are students assessed?</b></p>	<p><b>Final exam</b></p> <p><b>Mid-term Test</b></p> <p><b>Assignments</b></p> <p><b>Projects</b></p> <p><b>Portfolio</b></p> <p><b>Reflective diary</b></p> <p><b>Other</b></p>	
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<p><b>2.2 Do you think that the assessment methods reduce or limit the interest of students to actively engage in the learning process?</b></p>	<p><b>Please write down your ideas</b></p>	
<p><b>2.3 Are the key concepts included in the course assessed through the learning activities and/or other forms of assessment?</b></p>	<p><b>Yes / No</b> <b>In the case of Yes, provide examples</b></p>	
<p><b>2.4 Are concepts and/or values in the course that are taught, but not explicitly assessed?</b></p>	<p><b>Yes / No</b> <b>In the case of Yes, provide examples</b></p>	
<p><b>2.5 Is the assessment authentic? Does it include, for example, multiple modes of evaluation, quantitative and qualitative criteria? Are the assessment methods related to real-life situations?</b></p>	<p><b>Yes / No</b> <b>In the case of Yes, provide examples</b></p>	

### 3. GAPS, OMISSIONS, UNDERLYING ASSUMPTIONS & IMAGES

**3.1 What do you think is missing or silenced from the course content? What questions are left out? Why is it so? Give sound explanations and reasons.**

**3.2 What are the underlying assumptions/messages of the course?**

**3.3 What is the image of the world that passes through the course?**

**3.4 Which side of social reality is depicted through the course?**

3.5 What sustainability values are promoted through this course?

e.g.

freedom,

equality,

solidarity,

tolerance,

respect for nature,

shared responsibility

integrity

[\(\[https://www.researchgate.net/publication/325442196\\\_Sustainable Development Values What Do We Know From Developing Country Perspective\]\(https://www.researchgate.net/publication/325442196\_Sustainable\_Development\_Values\_What\_Do\_We\_Know\_From\_Developing\_Country\_Perspective\)\)](https://www.researchgate.net/publication/325442196_Sustainable_Development_Values_What_Do_We_Know_From_Developing_Country_Perspective)

## PART C. RECONSTRUCTION PROCESS

Use the filled ICT4EDU Course Description template and considering the deconstruction and construction stages you have elaborated, proceed with changes, additions, and amendments in your course that will enhance the sustainability aspects in it and contextualize ICTs with Education for Sustainability (real-life issues elicited from the 17 SDGs) more effectively. Please also bear in mind the following:

### CONTEXT/ACTIVATION/REFLECTION/ENGAGEMENT.

Write the general goals of the course/unit/module:

Describe what kind of previous knowledge you will use in teaching the reconstructed course/unit/module:

Describe the characteristics of learners (e.g. skills, values, knowledge, attitudes, action competencies) that will contribute to the learning outcomes:

Describe what kind of teaching/learning activities you will do to activate, reflect, and engage your learners and how you will identify and assess: a) what learners know on the subject; b) what they want/need to learn; c) how they want/need to learn and what they have learned.

**SPECIFIC OBJECTIVES:** Write down what learners should be able to do after the end of the lesson unit/module (1, 2, 3...) The learning outcomes should be learner-centered or learner-driven and include all categories of learning processes and cognitive skills. It is important that learning outcomes can arise from both the activation process and the learning activities across all lesson phases. The co-formulation of the specific objectives of the course is a prerequisite for a learner/learning-centered teaching approach. This means that the specific objectives can be partially modified and/or supplemented during the implementation phase of the reconstructed course/unit/module.

**CONNECTIVITY Interdisciplinarity:** Try to connect your course/unit/module with at least two different subjects of the curriculum.

Integrating the STEAM methodology is a good strategy to achieve inter/cross-disciplinary.

Explain how each specific objective is associated with the STEAM curriculum areas, identifying the specific content with reference to the relevant course/unit/module, learning purpose, and page. The inter/cross-disciplinary approach leverages a holistic perspective in knowledge construction. Education for sustainability justice: Describe the connection of the course/unit/module and learning

outcomes with reference to the six learning pillars: learning to know to be, to live together sustainably, to do, to transform myself and society, and to give/share. Describe the connection of the unit/module and learning outcomes with the themes covered in the four pillars of sustainable development (environment, society, economy, culture) with particular reference to climate change, as evidenced by the deconstruction and construction process. Describe the connection of the unit/module and learning outcomes with of the 10Cs, taking into account the deconstruction and construction process:

#### Asses LEARNING MATERIAL AND RESOURCES

- Describe what is needed in terms of learning materials, digital sources, web-based tools, and other sources you may use:
- Do not forget to cite the references of all your sources.

#### ORGANIZE YOUR CLASS

- Explain how you are going to organize your class to carry out successfully the reconstructed learning unit/module

#### PLAN OF AUTHENTIC ASSESSMENT

- An Organizer of Authentic Assessment
- Consult the DREAM methodology for course curriculum assessment that complies with the DeCoRe plus methodology and the CARE methodology for developing student-driven learning activities.
- See the DREAM methodology for the course curriculum assessment

Special objective number	Description of authentic assessment*	Connection with a level of cognitive skill **	Connection with learning activities by phase***

\* An authentic assessment focuses on the evaluation of the learner's capacity: 1) to apply knowledge and skills in situations - problems of the "real world" and 2) to generate ideas, construct new knowledge, use multiple ways of knowing holistically, consolidate knowledge, cooperate, and investigate. Therefore, it may include multiple modes and tools such as: concept maps, interactive learning activities, learning logs, autobiographies, tests, etc. Also, authentic assessment is integrated into all teaching/learning phases at the diagnostic, formative, and summative levels.

\*\* Indicate the category of skills.

\*\*\* Indicate the learning activity and the phase in which each specific objective (learning outcome) is connected. This column will be filled in when you have completed the activities in each phase. The activities will be numbered. For example, in activity 1, phase 1, you will write in column 1.1, etc.

#### PROCEDURES FOR IMPLEMENTING THE RECONSTRUCTED UNIT/MODULE

Describe the strategies and activities that will be used to implement the reconstructed course/unit/module, categorizing the process by phase and time duration. Take into consideration that assessment should be incorporated in phases and that there must be consistency with the table above. It should also be consistent in phases, starting from how to recall and use learners' prior knowledge (activation). Particular attention should be paid to the interconnectivity strategies and learning activities along the authentic assessment chart and the linkages to the interdisciplinary approach, the six learning pillars, and the 10Cs (Transversal Skills).

#### Disclaimer:

This project has been funded with support from the European Commission. This publication [communication] reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

# Curriculum and Hypermedia (Topics Before Deconstruction)

A curriculum and hypermedia course could encompass various topics, blending educational theory with practical technology applications in learning environments. Here are some potential components that could be included in such a course:

## ■ 1. Introduction to Curriculum Theory

- Overview of curriculum development theories (e.g., Tyler's Objectives Model, Taba's Grassroots Model).
- Historical perspectives on curriculum design and education models.

## ■ 2. Understanding Hypermedia

- Definition and hypermedia components, including text, audio, video, and interactive elements.
- Differences between hypermedia and traditional media.



### **3. The Role of Hypermedia in Education**

- Benefits of hypermedia in enhancing learning (e.g., engagement, differentiation).
- Impact of multimedia on learning outcomes and retention.

### **4. Curriculum Design Principles**

- Aligning curriculum with educational standards and learning outcomes.
- Strategies for integrating hypermedia into existing curricula.

### **5. Creating Hypermedia Content**

- Tools and software for designing hypermedia (e.g., Adobe Spark, Prezi, Articulate Storyline).
- Basics of web design and multimedia production.

### **6. Instructional Strategies for Hypermedia**

- Methods for effective instruction using hypermedia (e.g., constructivist approaches, inquiry-based learning).
- How to facilitate learning in hypermedia-rich environments.

## **7. Assessment and Evaluation**

- Formative and summative assessment techniques for hypermedia-enhanced curricula.
- Tools for evaluating the effectiveness of hypermedia in achieving learning outcomes.

## **8. Accessibility and Inclusivity**

- Designing hypermedia content that is accessible to all learners, including those with disabilities.
- Best practices for ensuring equitable access to hypermedia resources.

## **9. Case Studies and Practical Applications**

- Examination of successful implementations of hypermedia in various educational settings (K-12, higher education, and corporate training).
- Group projects where students design and present a hypermedia-based curriculum unit.

## **10. Future Trends in Education and Technology**

- Exploration of emerging technologies and their potential impact on curriculum design (e.g., virtual reality, augmented reality).
- Discussion on lifelong learning and the evolving role of teachers and learners in a hypermedia-rich landscape.

**AN EXAMPLE OF AN UNDERGRADUATE COURSE APPLYING  
ICT-ENABLED THEME-BASED EDUCATION FOR  
SUSTAINABILITY**

**Course Syllabus  
Curriculum and Hypermedia**

*University of Crete, Faculty of Education, Department of Primary  
Teacher Education,  
Spring Semester, 2017-2018*

**Instructor Information**

Instructor: Prof.Dr. Vassilios Makrakis  
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Office Hours: Tuesday 14.30- 17.00, Wednesday 14.00 – 16.00  
E-mail: makrakis@edc.uoc.gr  
Website:

**Course Identification**

Course Number: **Γ03-03**  
Course Name: Curriculum and Hypermedia  
Course Location: University Campus  
Class Times: Wednesday 8:30pm – 11:30am  
Prerequisites: ICT literacy  
Faculty Web Page: <http://www.edc.uoc.gr>

**Course Description/Overview**

Education can be the catalyst for empowering students to become critical, reflective and active citizens. Teachers have the potential to be what Giroux and McLaren described as transformative intellectuals who combine scholarly reflection and practice

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## **Course Description/Overview**

Education can be the catalyst for empowering students to become critical, reflective and active citizens. Teachers have the potential to be what Giroux and McLaren described as transformative intellectuals who combine scholarly reflection and practice in the service of educating students to be thoughtful, active citizens. What the course offers is a good introduction to the area of curriculum and hypermedia

## Course Learning Objectives

The overarching goals of this course are: a) to provide a critical approach to curriculum supported by new advanced technologies in the context of education for sustainability; b) raise awareness of the role of some technologies in enabling learners to reflect critically on the rights, roles and responsibilities of an active citizen in preparing for a sustainable future for all; and c) use participatory video and social networking technologies as tools to help the community, including children, identify risks and develop climate change adaptation strategies.

## Course Content Learning Outcomes

Upon successful completion of this course, students will be able to:

1. Discuss the various epistemologies of curricula addressing issues of education for sustainability
2. Connect curriculum theories with hypermedia-based learning and education for sustainability.
3. Produce a 5-10 minute digital video (including storyboarding, lighting, shooting, editing sound tracks and graphics).
4. Use social media to raise awareness for action and advocacy from the bottom up.
5. Develop a lesson plan that integrates the produced digital ~~artifact~~.
6. Apply principles of transformative learning design.
7. Demonstrate awareness and ability to discourse on ethical issues in using social media and social networking tools.

## Course Resources

### Course Website(s)

### Required Course Texts and Materials

Hands-out prepared by the instructor for the class

Melliadou, E. et al., (2011). Digital storytelling, learning and education. Proceedings of the 6th International Conference in Open & Distance Learning - November 2011, Loutraki, Greece.

Chapter 3: Curriculum Theory. Available at [http://www.sagepub.com/upm-data/6042\\_Chapter\\_3\\_Glatthorn\\_\(Sage\)\\_I\\_Proof\\_2.pdf](http://www.sagepub.com/upm-data/6042_Chapter_3_Glatthorn_(Sage)_I_Proof_2.pdf)

Watson, D. (2001). Pedagogy before technology: Re-thinking the relationship between ICT and teaching. Education and Information Technologies 6:4, 251–266. Available at [http://cursa.ihmc.us/rid=1129290598718\\_1343349371\\_1835/watson\\_pedagogy\\_bef\\_t\\_echnol\\_2001.pdf](http://cursa.ihmc.us/rid=1129290598718_1343349371_1835/watson_pedagogy_bef_t_echnol_2001.pdf)

Hargreaves, LG (2008). The whole-school approach to education for sustainable development: From pilot projects to systemic change' in Policy & Practice: A

## **Optional Course Texts and Materials**

## **Assignments and Grading Scheme**

### **Grading System**

0 to 10 (where 5 is the least pass mark)

### **Grading Policy**

Grades can be based on the following: (Example)

Assignments	80%
Exams	
Class attendance/participation	20%
<b>Total Points</b>	<b>100</b>

## **Course Policies**

### **Late Assignments**

It is essential that papers and other assignments be completed and submitted on time. Once the due date is past, without notice and justification, the submission is not accepted.

### ***Classroom Protocol***

This is a seminar type of course, which means that students are expected to come to ALL classes. You cannot pass the class under any circumstances if you miss more than three

## Course Schedule

Week	Date	Topics, Reading, Assignments and <u>Deadlines</u> (Details on assignments and more bibliography are available in the course modules)
1	15/2/2016	<b>Course Overview</b> Discussion of syllabus and assignments, course requirements and prerequisites; Criteria for student selection
2	22/2	Curriculum theories and epistemologies
3	29/2	Curriculum and whole-school <u>approaches</u> to ESD
4	7/3	Cross0curriculum approaches to teaching and learning for sustainability
5	14/3	Digital storytelling, participatory video (PV) and social media
6	21/3	Examples of participatory video clips and educational digital storytelling
7	28/3	Setting up a PV project addressing an ESD-related local issue
8	4/4	The planning & design process for video clip/s production
9	25/4	Using scenarios in PV design and creating a storyboard
10	2/5	Participatory video clip production
11	9/5	Participatory video clip production
12	16/5	Integrating participatory video clip in lesson planning
13	23/5	Integrating participatory video clip in lesson planning



# A shorten example of course modules

Course	Curriculum and Hypermedia
Module 1	Curriculum: Different Types and Functions
Key Concepts	Curriculum theory and types, technology,
Overview	When I ask my <u>students</u> what curriculum means to them, they always indicate that it means the hidden or written curriculum. However, the word "curriculum" means more things. Melding theory and the reality of school curriculum is also another issue often ignored in the educational process. It is therefore essential for students to develop a fundamental understanding of curriculum theory by providing the tools necessary for that. Questions to be addressed in this module include the following: What is the nature and function of curriculum theory? Why is it important to meld the theory and reality of school curriculum? What are the major classifications of curriculum theory? How has technology been a catalyst for curriculum change?
Aim	The overriding aim of this module is to turn students able to discourse on curriculum theories, types and functions and the impact technology can exert on curriculum change.
Learning Outcomes	At the end of this module learners will be able to: <ul style="list-style-type: none"> <li>• Identify and discuss the different types and functions of curriculum</li> <li>• Discuss how technology can contribute to curriculum change</li> </ul>
Units	Unit <u>1.1 Curriculum</u> as a Body of Knowledge/Product Unit 1.2: Curriculum as Process Unit 1.3: Curriculum as Praxis (practice) Unit 1.4: Curriculum as Context
Readings	<u>Fulya Damla Kentli</u> (2009). Comparison of hidden curriculum theories. <i>European Journal of Educational Studies</i> 1 (2) 83-88. Grundy, S. (1987) <i>Curriculum: Product or Praxis</i> , Lewes: Falmer Aristotle (1976) <i>The Nicomachean Ethics</i> ('Ethics'), <u>Harmondsworth</u> : Penguin.

## Activity

### Overview

#### Assignment 1.1: Reflecting Upon Curriculum

1. Which theories and approaches to learning fit with your current attitude towards and/or method of teaching? (3-4 paragraphs)
2. Which theories and approaches to learning do you disagree with in part or whole? Describe your reasons.
3. "Role play" – Set up four characters in a short play. Have each of the four characters represent a different theory/type of curriculum. Ask each character to convince the other. Through that character's words in this role play, we will come to know of each of these curriculum types and their functions.

#### Assignment 1.2: Applying Theory

Which education theory are you most attracted to? Why?

Which theory are you able to apply to your classroom? Why?

What challenges or obstacles do you face in applying the chosen theory in your classroom?

What kind of help do you need to overcome these obstacles?

What is the Design Studio?

Access and explore the following dynamic Web-based toolkit entitled Design Studio(<http://jiscdesignstudio.pbworks.com/w/page/45526271/technologies%20for%20curriculum%20change>) which draws together a range of existing and emerging resources around curriculum design and delivery and the role technology plays in supporting these processes and practices.

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<b>Activity 2</b>	<b>Overview</b>
	Design a plan taking into consideration the <u>rubrick</u> found in the readings. This framework has been developed by a team of researchers who worked on a project funded by the Teaching and Learning Research Initiative: Investigating the Impact of Whole-school Approaches to Education for Sustainability on Student Learning.
<b>Module 3</b>	<b>Curriculum and Thematic Learning addressing Sustainability Themes</b>
<b>Key Concepts</b>	Curriculum, thematic instruction, ESD
<b>Overview</b>	As the world becomes more interlinked by human activities our problems become more complex - and their solutions more difficult to grasp. This has to be reflected in curricula. Interdisciplinary thematic units are a powerful tool for <sup>35</sup>

### Activity 3

### Overview

#### *Assignment 1: Generating Themes*

1. Think of 5 possible themes dealing with sustainability
2. Next consider whether these themes are important in your community
3. Look at your list, and choose one. Write 3-4 sentences telling more about it. Why might it be a useful theme? How does it fit into your community's and personal interest?

#### Find Sample Thematic Units

Using the World Wide Web, locate at least three units (lesson plans) related to the theme you have chosen. Start your search for lesson plans using both lesson plans sites and/or writing key words describing your theme. Explain why a thematic approach is applied in the three chosen lesson plan?

#### Plan Your Own Thematic Unit

You will develop the unit for a class of your choice. This unit plan will be described in a paper (maximum 4 pages) comprised of five interlinked sections (Activation, Teaching/Learning Tasks, Learning Processes, Reflective Feedback and Cross-curriculum Extensions) that are explained in class.

**Activity 4****Overview**

**Assignment:** Good video production begins with good planning and storyboarding. Go to [KidzOnline](#), select the Guest Login link and register for this free resource. Then select the [Tech Training](#) tab and check out the Technology Units available. Select the Digital Video Unit and Stream the following selections: #2 [Digital Video: Getting Started](#) and #4 [Digital Video: Storyboard](#).

**Assignment:** Using the WWW search for participatory video clips addressing ESD themes with particular to your own theme chosen.

**Assignment: Prepare a research proposal**

**Do research**

**Storyboarding Exercise**

For your object description assignment, you'll need to create a storyboard as part of the planning and development process. As storyboarding practice, this exercise asks you to take a TV commercial and construct a storyboard for it, the reverse of the normal storyboarding [process](#). In assessing your Storyboarding Assignment, consider the [rubrick](#) provided.

<b>Activity 5</b>	<b>Overview</b>
	Start the production process
<b>Module 6 Video-clip Post-Production</b>	
Key Concepts	Editing, narrating, exporting
Overview	<p>Once the footage has been captured, it needs to be put together in a meaningful way based on the story and storyboards. This process is called editing. Clips may need to be trimmed to make them shorter, and in some cases a shot may need to be redone because of lack of media or bad lighting etc. Students can creatively determine which shots best tell the story. Sometimes a simple change in camera angles makes one shot better than another. During editing, students</p>

Readings	A compilation of hands-out
<b>Activity 6</b>	<b>Overview</b>
	<b>Implementing the production</b>
<b>Module 7</b>	<b>Integrating the video clip into the thematic unit</b>
Key Concepts	Lesson planning, thematic integration
Overview	Planning, developing and producing a video clip dealing with a sustainable development issue should be seen in the context of teaching and learning process. Accordingly, the video clip should be integrated into a lesson plan.
Aim	The overriding aim of this module is to help students integrate the video clip into the curriculum
Learning Outcomes	At the end of this module learners will be able to: <ul style="list-style-type: none"> <li>• Demonstrate knowledge on lesson planning</li> <li>• Applying knowledge and techniques for integrating learning objects such as a video clip into lesson planning</li> </ul>
Units	Unit 6.1: Integrating the video clip into the curriculum Unit 6.2: Uploading video clip
Readings	<a href="http://Ourmedia.org">Ourmedia.org</a> Publish & store your creations- video, audio, text or graphics. <a href="http://Google.com">Google</a>

	<p><u>Video</u>: Upload or download, digital videos of any size or length.</p>
<b>Activity 7</b>	<b>Overview</b>
	<p><u>You Tube</u>: Upload almost any video format, watch streaming video and share your video creations with anyone. <u><a href="#">Converting You Tube files for use in Movie Maker</a></u>. Native format not supported in Movie Maker.</p> <p><u>TeacherTube</u>: Video and social networking site offers 11 customized channels for teachers to upload and share videos of best practices, tutorials and student projects in a content-controlled environment.</p>