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**The DeCoRe plus Curriculum Design &
Reconstruction Methodology**

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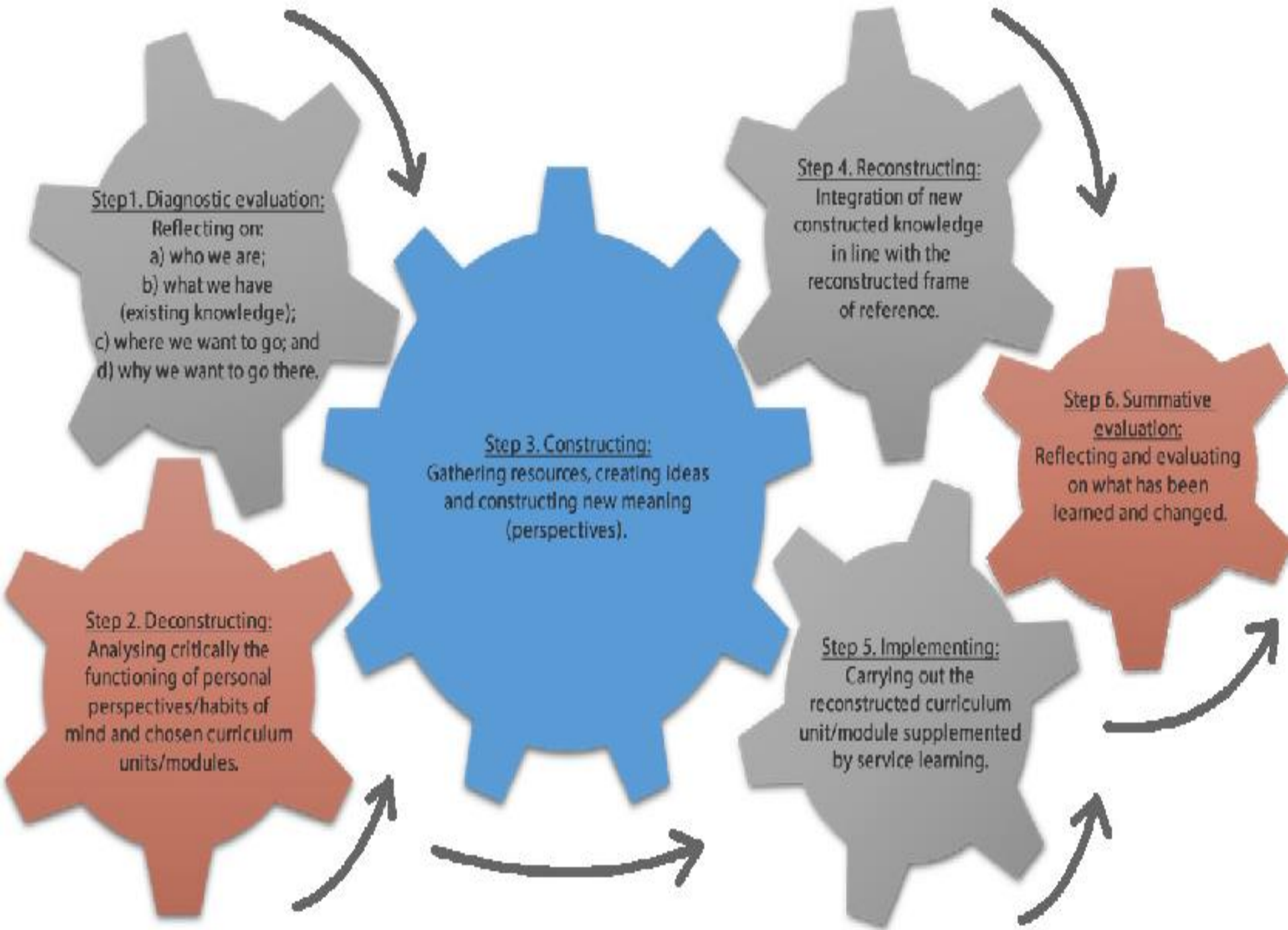
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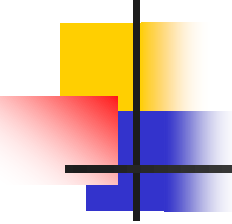
Prof.Dr. Nelly Kostoulas

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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.

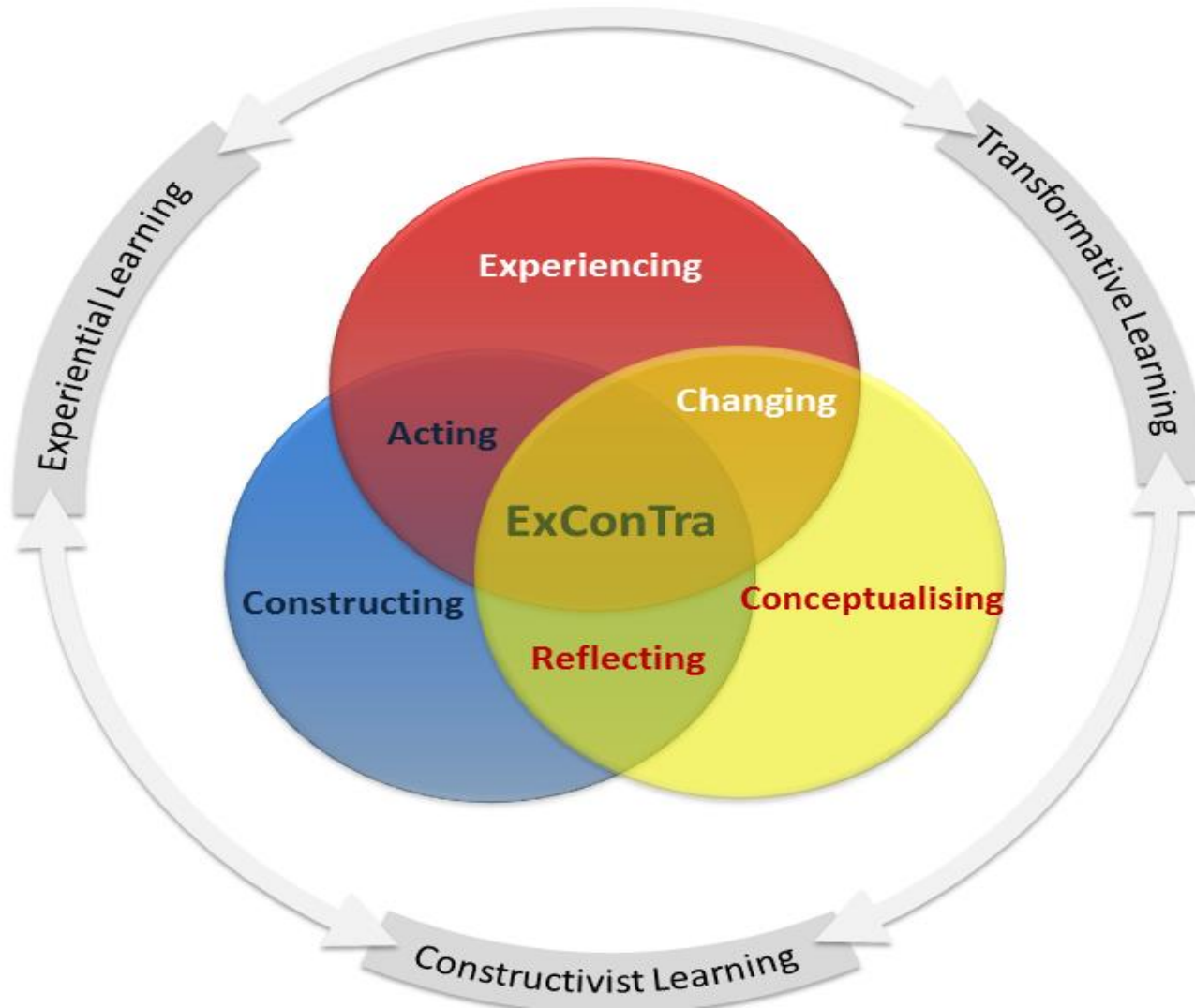




The Theoretical Underpinning of the DeCoRe plus Curriculum Design & Development

- Active Learning
- ExConTra Paradigm

ExConTra Paradigm



Type of knowledge/ Human interest	Perceived role of education	Teaching and learning paradigms	Curriculum perspectives	Pedagogy	Research paradigms
Technical (prediction; causality; instrumentality)	Reproduction/ socialization/ <u>vocationalization</u> (Reproduce existing reality)	<u>Transmissive</u> (transmitting facts, skills, and values from a knowledgeable source)	Product (Competence based, prescribed, socialisation)	Behaviourism (Observable and measurable aspects of human behaviour)	Positivistic (Predict and control human behaviour)
Practical (self-understanding; <u>Intersubjectivity</u>)	Liberal (Provide broad knowledge and a stronger sense of values, ethics, and civic engagement)	<u>Transactive</u> (meaning-making in which understanding is shaped through interaction with the environment)	Process (Experiential, flexible, reflective, counselling)	Constructivism (Knowledge and meaning construction through interaction)	Interpretive (Understanding of meanings and interpretations)
<u>Emancipatory</u> (critical reflection-praxis)	Transformative (act as agent of change and produce transformative intellectuals)	Transformative (creating a learning environment for altering learner's thinking and social reality)	Praxis (Critique and self-reflective, committed action for transformative change)	Critical pedagogy (Empower and give voice to the powerless and transform those conditions which perpetuate human injustice and inequity)	Transformative (dialectical-enlightenment-empowerment-action for change)

This is a template that functions as an organizer for applying the DeCoRe+ methodological approach to curriculum that has been used in relevant courses for pre-service and in-service teachers

<p>Name respondent:.....</p> <p>Curriculum Area:.....</p>	<p>Title of Unit/Module & pages</p>
<p>School Class:</p>	<p>Title of Subunit/lesson (pages)</p>



Deconstruction Components

1. Unit/Module Content (1.1-1.16)
2. Method of Assessment (2.1-2.5)
3. Gaps, Purposeful Omissions (3.1-3.4)
4. Power and Interests (4.1-4.3)
5. Projected Image & Reality (5.1-5.4)
6. Author's Image (6.1-6.2)

1. UNIT/MODULE CONTENT

Provide your detailed and critical answers

1.1 What is the title, subject and recipients of the teaching/learning unit/module?

1.2 What is the main idea?

1.3 Where are the unit/module aims and specific objectives? Are the objectives clear?

1.4 Is the content of the unit/module suitable to goals and objectives, with clear and understandable concepts, principles and ideas?

1.5 Does the unit/module include dynamic activation elements that stimulate student interest?

1.6 Does the unit/module include learning activities that create conditions for both the revocation of prior learning, and to build new knowledge?

1.7 Are the learning activities connected with learning objectives?

1.8 Are the learning activities connected with knowledge from other subjects/courses? If YES, specify what and how.

1.9 Are the unit/module topics and learning activities relate to real life?
As well as the four pillars of sustainability justice (environmental justice, social justice, economic justice & cultural justice)?

1.10 Does the content of the unit/module and especially the learning activities relate to: 1) the six learning pillars for sustainable development (learning to know, learning to be, learning to live together, learning to do, learning to transform oneself and society & learning to give and share), and 2) the 10Cs?

1.11 Are the learning activities integrated with problem-based learning strategies?

1.12 Are values in the unit/module that are supposed to be taught but they are implicit?

1.13 Does the unit/module reproduce the dominant ideology and the economic model of non-sustainable economic growth?

1.14 What kind of knowledge interest is promoted in this teaching/learning unit/module? 1) technical/instrumental knowledge (information-knowledge); 2) practical knowledge (deep understanding of the subject); and 3) emancipatory knowledge (creating conditions for change towards a sustainable society).

1.15 Is there a hidden curriculum designed? (That is, if learners are given the opportunity to learn concepts, principles, ideas and values that are not registered with the official curriculum). If YES, record and explain.

1.16 Is there a zero curriculum? (That is, if there could be knowledge and activities considered necessary in this unit/module, but not included) . If yes, what prevents the learner to learn something that would otherwise be useful in learning about the

specific teaching/learning unit/module?

2. METHOD OF ASSESSMENT

Provide your detailed and critical answers

2.1 How are learners assessed?

2.2 Do you think that the assessment methods reduce or limit the interest of learners to actively engage in the learning process?

2.3 Are the concepts included in the teaching/learning unit/module assessed?

2.4 Are concepts not included in the teaching/learning unit/module assessed?

2.5 Is the assessment authentic? Does it include, for example, multiple modes of evaluation, quantitative and qualitative criteria? Are the assessment methods related with real life situations?

**3 GAPS, PURPOSEFUL OMISSIONS
AND UNDERLYING ASSUMPTIONS**

Provide your detailed and critical answers

3.1 What do you think is missed or silenced from the unit/module content? Why is it so? Give sound explanations and reasons.

3.2 Which persons and things are purposefully omitted? Why?

3.3 What questions are not raised? Why?

3.4 What are the underlying assumptions of the teaching/learning unit/module?

4. *POWER AND INTERESTS*

Provide your detailed and critical answers

4.1 What interests/views are raised in this teaching/learning unit/module? Why;

4.2 What interests/views are hidden or silenced in this teaching/learning unit/module? Why?

4.3 Are the alleged views in the teaching/learning unit/module objective and just?

5. PROJECTED IMAGE AND REALITY

Provide your detailed and critical answers

5.1 What is the image of the world that passes through the teaching/learning unit/module?

5.2 Which side of social reality is depicted?

5.3 What is real and what is imaginary in the teaching/learning unit/module?

5.4 What are the analogues of the subject in other places/areas?

6. AUTHOR'S IMAGE

Provide your detailed and critical answers

6.1 What image does the reader form for the author/s of the teaching/learning unit/module?

6.2 What values/ideas are espoused by the author/s?



CONSTRUCTION PROCESS

Based on the detailed and critical answers to the deconstruction process, start the construction process by recording the main points that need changes and describing your proposals which will be used in the reconstruction process.

7. REPORT THE KEY POINTS THAT NEED TO BE DECONSTRUCTED IN EACH OF THE FOLLOWING DOMAINS AND PRESENT YOUR SUGGESTIONS

Elaborate your key points and suggestions based on the following table organizer of critical reflection

7.1 Content

7.2 Evaluation Methodology

7.3 Gaps, purposeful omissions & underlying assumptions

7.4 Power and interests

7.5 Alleged perspective/reality

CRITICAL REFLECTION

Reflect on what is needed to support the following four domains

Interactive Teaching/Learning

[Give a short description of the ICT tools, multimodal texts, learning styles, repositories of learning material and tools, classroom organization]

Learning pillars and 10Cs

[Give a short description of how you will integrate the six learning pillars and 10Cs following an interactive teaching/learning process dealing with authentic problems]

Teaching/learning approaches

[Give a short description for the integration of interdisciplinary and problem-based learning approaches, giving due emphasis on student-centered learning, cooperative learning and transformative learning, etc.]

Authenticity

[Give a short description of how the key concepts and new learning activities are related to real life, experiential and social learning, active citizenship]



RECONSTRUCTION PROCESS

**RESPONDENT NAME: _____ SCHOOL CLASS: _____ CURRICU-
LUM AREA:**

NAME OF UNIT/MODULE:

TITLE OF SUBUNIT:

TIME DURATION:

CONTEXT/ACTIVATION

Write the general goals of the unit/module:

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

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

Describe what kind of teaching/learning activities you will do to activate your learners and how you will investigate: a) what learners know on the subject; b) what they want/need to learn and c) how they want/need to learn:

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-centred 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 unit/module.

CONNECTIVITY

Interdisciplinarity:

Try to connect your unit/module with at least two different subjects of the curriculum. To help you in understanding the rationale and the process for the interdisciplinary approach of your unit/module, fill in the Interdisciplinary Approach Organiser in the Annex. Indicate the involved curriculum areas (e.g., Language, Mathematics, etc.):

Explain how each specific objective is associated with these curriculum areas, identifying the specific content with reference to the relevant unit/module, learning purpose and page. The interdisciplinary approach leverages a holistic perspective in knowledge construction.

Education for sustainability justice:

Describe the connection of the 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 ICT tools:
- Do not forget to cite the references of all your sources:

ORGANIZING YOUR CLASS

- Explain how you are going to organise your class for carrying out successfully the reconstructed learning unit/module with the support of ICTs:

PLAN OF AUTHENTIC ASSESSMENT

An Organiser of Authentic 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: conceptual maps, interactive learning activities, learning logs, autobiographies, tests, etc. Also, authentic assessment is integrated in all teaching/learning phases at the diagnostic, formative and summative level.

** 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, activity 1, phase 1, you will write in the column 1.1, etc.

PROCEDURES FOR IMPLEMENTING THE RECONSTRUCTED UNIT/MODULE ENABLED by ICTs

Describe the strategies and activities that will be used to implement the reconstructed 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.

APENDIX I: The ICTeEfS Course Syllabus Template Example



ICTeEfS
ICT-enabled In-service
Training of Teachers
to Address Education
for Sustainability



ICTeEfS COURSE SYLLABUS TEMPLATE

Course Syllabus

Course Number:

Curriculum and Hypermedia

***University of Crete, Faculty of Education, Department of
Primary Teachers Education,
Spring Semester, 2015-2016***

Instructor Information

Instructor: Prof.Dr. Vassilios Makrakis
Office Location: Gallos University Campus
Telephone: Office – +30 28310 77625
Office Hours: Tuesday 14.30- 17.00, Wednesday 14.00 – 16.00
E-mail: makrakis@edc.uoc.gr
Website:

Course Identification

Course Number:	Γ0
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 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

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%
Total Points	100

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	Course Overview 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

Course	Curriculum and Hypermedia
Module 1	Curriculum: Different Types and Functions
Key Concepts	Curriculum theory and types, technology,
Overview	<p>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?</p>
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	<p>At the end of this module learners will be able to:</p> <ul style="list-style-type: none"> • Identify and discuss the different types and functions of curriculum • Discuss how technology can contribute to curriculum change
Units	<p>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</p>
Readings	<p><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.</p>

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.

Activity 2	<p>Overview</p> <p>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.</p>
Module 3	Curriculum and Thematic Learning addressing Sustainability Themes
Key Concepts	Curriculum, thematic instruction, ESD
Overview	<p>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 for⁴⁰</p>

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.

Activity 5	Overview
	Start the production process
Module 6 Video-clip Post-Production	
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
Activity 6	Overview
	Implementing the production
Module 7	Integrating the video clip into the thematic unit
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"> • Demonstrate knowledge on lesson planning • Applying knowledge and techniques for integrating learning objects such as a video clip into lesson planning
Units	Unit 6.1: Integrating the video clip into the curriculum Unit 6.2: Uploading video clip
Readings	Ourmedia.org Publish & store your creations- video, audio, text or graphics. Google

	<p><u>Video</u>: Upload or download, digital videos of any size or length.</p>
Activity 7	Overview
	<p><u>You Tube</u>: Upload almost any video format, watch streaming video and share your video creations with anyone. <u>Converting You Tube files for use in Movie Maker</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>