Technologies for the Deep Approach to Language Teaching and Learning

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Technology: Science of Action

- TECHNE = A mean to ease an end
- Non reducible to artifacts
  
  ....Not all ‘technologies’ ease the user’s end...

- Technologies for developing language skills = ‘skillers’
  
  ...Are exercises always ‘skillers’?

  ...Do they lead to proficiency?
Techne requires phronesis

- Aristotle taught us that any concrete or abstract tools, any ‘techne’ (the Greek name for technology) should be associated with prudence or reflective practice, what in Ancient Greek was named ‘phronesis’.

- Do not use technologies without prudence and reflective practice—which involve feedback—advised Aristotle.

- Well, do we disseminate technologies with prudence? Think about cell phones: the New York Times published on November 10 an article by Stross (2010, p. 7) that “holding a cellphone against your ear may be hazardous to your health. So may stuffing it in a pocket against your body.”
Three Forms of Reason

- The crisis of modernity can be explained by the limited interpretation being done of the concept of reason during the Enlightenment.

- Reason had been reduced to instrumental reason, which ‘forclosed’ two major dimensions that were present within Kantian philosophy: Practical Reason (how we should act) and Theoretical Reason (how we should appreciate the world).

- Education would have no meaning unless all three dimensions were integrated. Jürgen Habermas (1992) argued in favor of reinstating the Kantian dimensions of Reason: neglecting the critical examination of the impact of technologies when Instrumental Reason prevails is a highly risky endeavor.
Techne requires sophia

- Aristotle at his time went so far as to say that technology and reflective practice should be *subservient* to theoretical wisdom (in Ancient Greek, ‘*sophia*’).

- His point was that when the link between wisdom, reflective practice and technology is broken, there is a great danger that the higher values and virtues will be lost; humanity—humaneness—will be lost.
Instrumentality as Governmentality

- Technology without reflective practice and wisdom places our lives at risk.
- We need to cautiously explore instruments for wisdom, and techniques subjected to this higher goal.
The philosopher Naess (1989) contrasted reforms and their shallow policies with the development of a deeper critique of human institutions and activity leading to a “substantial reorientation of our whole civilization” (p. 45).

The philosophy of the Deep Approach is thus to seek “a fundamental change in the dominant worldview and social structure of modernity”

(Katz, Light & Rothenberg, 2000, p. ix).

Deep education concerns the whole person, it implies a sense of purpose and deep, transformational learning.
Transdisciplinarity

- Transdisciplinarity concerns that which is at once between the disciplines, across the different disciplines, and beyond all disciplines. Its goal is the understanding of the present world, of which one of the imperatives is the unity of knowledge.

  Nicolescu (2005, p. 2)

- The transdisciplinary project challenges “the spiritual and material self-destruction of the human species” (Charter).

- It considers that “life on earth is seriously threatened by the triumph of a techno-science that obeys only the terrible logic of productivity for productivity’s sake”.

- Consequently, increasing quantitative knowledge and increasingly impoverished inner identity lead to the rise of obscurantism with huge personal and social consequences.

- The exponential growth of knowledge and access to it increases inequalities between the haves and have nots.
To Make it Simple

Transdiscipline

Discipline A

Interdiscipline

Discipline B

Discipline C
Deep Ecology

- The Deep Approach is a philosophical movement that aims to integrating humans in their social, cultural, and ecological environment and developing environmental ethics and social justice in the professions.

- It emphasizes the interdependence of humans and their environment as coexistent and dependent systems.

- Deep ecology has depth because it raises thorny questions on the use of resources and our role as partners of the ecosphere. It proposes that we reconceptualise the purpose and framework of the human enterprise, asking ‘why’ and ‘how’.

- This motivates a realignment of current disciplinary work for the sake of a more humane society within a field of limited resources. Utilitarianism leads humanity to a global crisis because the goals of progress as currently defined are simply impossible to reach.
Rationales for Curriculum Transformation: Problems we Face

- Undernutrition and overpopulation.
- Pursuit of objects independently from their impacts on subjects.
- Destruction of biodiversity, cultures, and linguistic diversity.
- Institutional violence and State terrorism.
- Social injustice and self-centered superclass.
- Loss of civil rights and free speech; censorship and control of the medias.
- Health submitted to financial interests and perverted from its goal.
- Destruction of social bonds, moral values and education. Education privatized and used to maintain the social divide.
- Ubiquitous violations of human rights; omnipresent wars and risks of WWII.
Deep Culture

- Cultures can be conceptualized as sets of frameworks of shared meanings for human interaction. The nature and characteristics of these frameworks aren’t often debated or researched.
- They can be considered deep ways of knowing that explicate the expressed meanings manifest in the surface aspects and objects of cultures (Shaules, 2007).
- We must question the deep culture of each discipline to catch the history that explains why certain decisions are being made and examine how their rationale fits within the current situation of needs.
- Professionals are presently enslaved in a logic of productivity for their own Darwinian survival. However this is time to reframe the current practices as expressions of a culture that has gone astray and has become irrational considering the world situation.
Intercultural Learning

• One way to allow students to step aside of the inherited object-oriented shallow culture is to help them learn about other cultures.

• Questioning culture differences, social systems and rituals, taboos and belief structures can help reconceptualize language learning.

• Need for developing deep intercultural sensitivity. “Cultural learning involves relationship formation” (Shaules, 2007, p.233).

• Learning ethnorelativism or how to take a distance vis-à-vis one’s own culture will help in this reconceptualising process.
Deep Learning

- A European network that originated in Sweden and Great Britain was created on the idea of increasing the depth of learning. First it focused on deep reading (Marton & Säljö; Ramsden; Entlewistle).

- Deep understanding characterizes deep learning.

- Deep processing involves a re-conceptualizing of how reality is viewed.

- Several factors influence learning and help develop thinking from dualism to relativism, integrating biographical and contextual features.

- In contrast, *surface learning is task-oriented and is based upon extrinsic motivation*. Surface learners store and reproduce information while deep learners attempt to grasp meaning with the aim of transforming the material provided.
The deep sense of human identity refers to who we are and how we see our role in relation to the world and the biosphere. It transforms the world and the biosphere into one semiosphere that is, a meaning-making ecosystem (Thomashow, 2002).

Deep identity affects personal and professional decisions and choices as well as ideals and action.

The formative narratives of personal identity are intrinsically connected to the experience of nature.

Epistemic transformation can be understood as an evolution from dualistic representations in which knowledge is seen as an absolute to more relative and reasoned interpretations that contribute to identity building.
Shallow Teachers
Low educational practices rest upon assumptions that need to be refuted. Shallow teachers assume that (Paul, 1995):

- “Students learn how to think when they know what to think”.
- “Knowledge can be given directly to students without their having to think it through for themselves”.
- The head is a computer the teacher fills with data.
- “Quiet classes with little student talk are evidence of student learning” and “students gain significant knowledge without seeking or valuing it”.
- “Material should be presented from the point of view of the one who knows”.
- Program coverage is the most important, as “superficial learning can later be deepened”.

Deep Teachers
value higher order education and hold a very different set of assumptions (Paul, 1995, p. 277):

- Depth is more important than coverage: students learn what to think only as they learn how to think;
- One gains knowledge only through reflection and engaging into action;
- Education is the process of gathering, analyzing, synthesizing, applying, and assessing value-laden information;
- Shallow learning is often mislearning and an obstacle to deep understanding.
- Classes with much student talk focused on life issues, is a better sign of learning than quiet classes focused on a passive acceptance of what the teacher says; indeed students gain significant knowledge only when they value it;
- Subject-matters should be continually related to the learner’s experiences, life values, and viewpoints; students may give correct answers, memorize definitions and apply rules while not understanding the materials.
Motivation

- We rarely go by the results of research on human motivation. We continue doing business as usual, even if we get numerous daily proofs that what we are doing in our language classrooms is not motivating our students. It is repetitive, it proposes controlled environments, and there is a lack of authenticity and real challenge.

- Three psychological and motivational theories legitimate an open project-based approach in learning and assessment. They illuminate why this approach is so powerful to motivate students:
  - (1) self-efficacy theory (Bandura, 1986);
  - (2) attribution theory (Weiner, 1986), and

- According to all three motivation theories, open projects increase the dynamics of learning tremendously because they benefit from students’ intrinsic motivation.
How to organize instructional intentions within a holistic framework that develops proficiency?

- Educational projects unfold within the context of real communication. Then everything cannot be planned.

- The innovative idea is to explicitly state intentions that remain subordinated to the goals of transformation and change.

- Language acquisition units can be constructed and negotiated within the context of competence-based, whole acts.

- The goal is to connect two levels of planning: organizing tasks and the general dynamics of experience within meaningful projects.
Example of Task-Based Teaching Sequence

DIAGNOSTIC EVALUATION

Write the portrait of a peer

Characterize people using a list of adjectives

Check lexical gaps & motivating to enlarge vocab

Create a list of vocabulary to enrich physical and psychological descriptions

Use the dictionary

TEST ON SEMANTIC FIELDS (antonyms, synonyms, hyponyms...)

INTERMEDIARY EVALUATION

Appropriate use of vocabulary

Stuff a portrait in a narrative

Misuse of vocabulary

Describe a physical and psychological character

Final Evaluation

FIGURE 5.2
Character Under Active Surgery
Exhaustiveness of Outcome-Based Planning?

Figure 5.3
The Whole is More and Less Than the Sum of its Parts
We need, says Ellis (2003, p.333), “to go beyond the psycholinguistic rationale for task-based instruction in order to examine the social, cultural, political, and historical factors that contextualize teaching and influence how it takes place.

It requires that teachers examine how what they are teaching affects the lives of their students and how they can transform them for the better. As (Ellis’s book gives) testimony to, discussions of task-based teaching based on psycholinguistic models of language learning do not encompass this wider picture.”
Educative Projects can do it!

- Project-based Learning (PjBL) is a technology learners are socialized through individual or group experiences and actions “that involve the simultaneous learning of language, content, and skills” (Slater, Beckett & Aufderhaar, 2006).

- It works on intrinsic motivation, autonomy and self-initiation (Savin-Baden, 2003) and develops a sense of self-efficacy in the language because learners can “observe their linguistic progress and developing competence” (Mills, 2010).
# Tasks Domains in Practice

<table>
<thead>
<tr>
<th>Global Interactive Dynamics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Exchange</td>
</tr>
<tr>
<td>End Task Aspect A</td>
</tr>
<tr>
<td>Specific Intention A1</td>
</tr>
<tr>
<td>Specific Intention A2</td>
</tr>
<tr>
<td>Specific Intention A3</td>
</tr>
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</table>
# INTEGRATED TAXONOMIES

<table>
<thead>
<tr>
<th>Authors of Integrated Taxonomies</th>
<th>LEVEL 1</th>
<th>LEVEL 2</th>
<th>LEVEL 3</th>
<th>NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miller (1962)</td>
<td>V V V V</td>
<td>V V V V</td>
<td>V V V V</td>
<td>Functions</td>
</tr>
<tr>
<td>Eisner (1969)</td>
<td>V V V V</td>
<td>V V V V</td>
<td>V V V V</td>
<td>Expression</td>
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<td>Hoetker (1970)</td>
<td>V V V V</td>
<td>V V V V</td>
<td>V V V V</td>
<td>Will do</td>
</tr>
<tr>
<td>Tuckman (1972)</td>
<td>V V V V</td>
<td>V V V V</td>
<td>V V V V</td>
<td>Domains</td>
</tr>
<tr>
<td>De Block (1975)</td>
<td>V V V V</td>
<td>V V V V</td>
<td>V V V V</td>
<td>Subject culture</td>
</tr>
<tr>
<td>De Landsheere (1976)</td>
<td>V V V V</td>
<td>V V V V</td>
<td>V V V V</td>
<td>Expression</td>
</tr>
<tr>
<td>Rolinger et al. (1976)</td>
<td>V V V V</td>
<td>V V V V</td>
<td>V V V V</td>
<td>Proficiency</td>
</tr>
<tr>
<td>Romiszowski (1981)</td>
<td>V V V V</td>
<td>V V V V</td>
<td>V V V V</td>
<td>Improv planning</td>
</tr>
<tr>
<td>Cardinet (1982)</td>
<td>V V V V</td>
<td>V V V V</td>
<td>V V V V</td>
<td>Situated functioning</td>
</tr>
<tr>
<td>Allal (1986)</td>
<td>V V V V</td>
<td>V V V V</td>
<td>V V V V</td>
<td>Self-reg &amp; soc inter</td>
</tr>
<tr>
<td>CEPEC (1987)</td>
<td>V V V V</td>
<td>V V V V</td>
<td>V V V V</td>
<td>Competency</td>
</tr>
<tr>
<td>Tochon (1988)</td>
<td>V V V V</td>
<td>V V V V</td>
<td>V V V V</td>
<td>Transdiscipline</td>
</tr>
<tr>
<td>LOGSE (1990)</td>
<td>V V V V</td>
<td>V V V V</td>
<td>V V V V</td>
<td>Person &amp; social bal</td>
</tr>
<tr>
<td>Hauenstein (1998)</td>
<td>V V V V</td>
<td>V V V V</td>
<td>V V V V</td>
<td>Improv &amp; aspiration</td>
</tr>
<tr>
<td>Paquette (2002)</td>
<td>V V V V</td>
<td>V V V V</td>
<td>V V V V</td>
<td>General Process</td>
</tr>
</tbody>
</table>
Levels of Engagement

TRANSDISCIPLINE

INTERDISCIPLINE

DISCIPLINE
Connectivity

How to merge tasks into a larger project

Strategies

Contents

Oral Exchange
Describe yourself to others

Reading
Notice portraits in short novels

Writing
Modify the portrait of the Beast to metamorphose it into a Beauty

Basics
Pair antonymic descriptive adjectives

Figure 4
From the Beast to the Beauty
Transversal Connections
Figure 5.4
The IAPI Model and the Educative Projects' Task Domains
"It was a short exercise consisting of describing images in detail, and which actually allows a person to describe as well as to present oneself to the class."

Rca (ORAL) VC Rna ((image) LC (Rco (oneself)))
### Analysis of a verbal protocol

<table>
<thead>
<tr>
<th>I worked mainly on vocabulary in order to enrich compositions and texts. (Anchorage)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>For example</strong>, if it was a matter of working on props and portraits, I asked the students to form groups and find a corpus of words which would correspond with a given point, and which could be used to form part of a portrait or a prop. (Anchorage)</td>
</tr>
<tr>
<td><strong>For example</strong>, we started with stage props. I asked the students to work on them. Also short oral exercises were done with little preparation. I noticed that the students gave visual descriptions of what they saw when they had to describe the props. <strong>For example</strong> I had them placed in practical situations such as working with sound effects cassettes. I made them aware that the descriptive props not only affected us visually, but also through sound, smell, that is the five senses.</td>
</tr>
<tr>
<td>So afterwards, I gave them five stencils which illustrated the five senses. They had to prepare the composition of stage props by placing a certain number of vocabulary elements related to each sense in a box.</td>
</tr>
</tbody>
</table>
| **WRITING VC**  
(Rca(vocabulary))RTca |
| 1.  
Rna(props;portraits)  
VC (Rco(group work))  
VC (Rca(lexical field)) |
| 2.  
Rna(props)  
AC (Rco(ORAL))  
VC (Rna(images))  
(Anchorage)  
LC (Rco(sounds)) |
| 3.  
RSna(props)=Rna(description)  
VC (Rco(visual + auditive + olfactive + touch + 5 senses)) |
| 4.  
RTca(stencil) VC Rna(5 senses)  
RT(WRITING) Rna(props)  
VC Rca(vocabulary) VC  
(Rco(5 senses)) |
Curriculum Transformation

- Seasoned teachers help students transform curriculum knowledge into thematic stories, operational skills, or whole acts which lead to actualizing experiences.

- Thus instructional organizers exist at three levels: disciplinary, thematic narrativors, interdisciplinary skillers, and transdisciplinary actualizers.

- Narrativors transform the language curriculum into stories of experience, skillers transform the curriculum into task operations, actualizers transform the curriculum into interpersonal and transpersonal experiences.

- The entire curriculum is remolded with the help of key organizers to which all other language tasks are subordinated.
ACTION: Write a story

OPERATION: Find and apply the constants of a literary genre

THEME: Dream literature

Figure 5.5
Instructional embedment of a Theme into Operations to develop an Action
## Negotiated Projects

### INSTRUMENTAL ORGANIZER

**Dialogue**

### DIALOGUE-RELATED PROJECT

<table>
<thead>
<tr>
<th>ACCESS</th>
<th>VOICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>READ</td>
<td>WRITE</td>
</tr>
<tr>
<td>WATCH</td>
<td>SPEAK</td>
</tr>
<tr>
<td>LISTEN</td>
<td>RECORD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INTERPRET</th>
<th>ANALYZE</th>
<th>PRESENT</th>
<th>INTERACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>READ</td>
<td>FOCUS ON</td>
<td>WRITE</td>
<td>EXCHANGE AND</td>
</tr>
<tr>
<td>WATCH</td>
<td>LANGUAGE</td>
<td>SPEAK</td>
<td>ACT WITH PEOPLE</td>
</tr>
<tr>
<td>LISTEN</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **READ**
  - Read dialogues by humorists
  - Watch videos presenting comic dialogues
  - Listen to your peers reading and playing comic dialogues

- **WRITE**
  - Audio record a reading of a comic dialogue
  - Write the dialogue between glass, toothbrush and toothpaste about the impact of fluoride on the brain
  - Write the dialogue of the shirt, pants, and tissue about the owner's identity

- **SPEAK**
  - Improvise the dialogue between characters on a TV with the sound turned off
  - Play the dialogues you wrote
  - Improvise sketches involving contradictory characters

- **RECORD**
  - Improvise the dialogue between characters on a TV with the sound turned off
  - Play the dialogues you wrote

- **FOCUS ON**
  - Analyze the strategies of theatrical emphasis and the comic style
  - Punctuate a dialogue
  - Respect oral punctuation
  - Change language register (low, standard, elaborate)
  - Transpose a comic dialogue into indirect speech and vice versa

- **PRESENT**
  - Improvise the dialogue between characters on a TV with the sound turned off
  - Play the dialogues you wrote

- **INTERACT**
  - Improvise sketches involving contradictory characters
  - Act out a comic sketch

---

**Figure 5.7**

Instrumental Pivot
**Instructional Pivot**

**ACTION:** Improvise, act, then record a dialogue

**OPERATION:** Work out a dialogue

**THEME:** Comic style

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**OPERATION:** Work out a dialogue (PIVOT)

**THEME:** Comic style

**ACTION:** Improvise, act, then record a dialogue

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**EXPERIENTIAL PIVOT:** Create a council group

**OPERATION:** Work out strategies for organization and group action

**THEME:** Advertising and sales

---

**THEMATIC PIVOT:** Advertising and sales

**OPERATION:** Work out strategies for organization and group action

**ACTION:** Create a council group

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**Figure 5.10** Moving embedment in which the pivot shifted from the experiential organizer (actualizer) to the proficiency organizer (skiller)

**Figure 5.11** Moving embedment in which the pivot shifted from the experiential organizer (actualizer) to the thematic organizer (narrativor)
Technologies with Reflection and Depth

- Hypertextbooks to create connivance with personal and team projects
- Multimedia with language focus on ‘deep’ topics
- Reflective grammar storytelling on video addressing cross-cultural pragmatics
- Scaffolds for projects that develop the ‘ZPID’ (Tochon & Lee, 2010)

- Technologies that:
  - Integrate the L1 ‘elephant in the classroom’ (Kramsch, 2010; Levine, 2011)
  - Give the primacy to texts (Kern, 2000; Byrnes, 2005; Allen, 2009) for deep writing, recording, reporting
  - Allow self-directed learning or team-directed learning
To Sum Up

Check: http://deepapproach.wceruw.org/index.html

- Among the factors that contribute to a deep approach, the philosophy of learning has a tremendous importance.

- You learn best what you feel you need to know. Striving for knowledge is a major characteristic of deep, life-long learners. It determines the way of perceiving new knowledge.

- Therefore socio-affective engagement plays a key role in a deep approach to learning.

- Deep learning defines a situation in which the teacher is not the only source of inspiration and knowledge.

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