

# ESTA: Educating Science Teachers for All

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The DLSU Experience

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## Our goals:

- improve instruction
  - providing diversity-sensitive approaches in teaching science classes
- enhance student interest in science
- Our ways:
  - capacity-building of science teachers
  - infrastructure support





# The CLIL Approach

There is no specific methodology that relates to CLIL. However, some common features are used in CLIL in different countries, and CLIL requires active learning methods, cooperative classroom management, and emphasis on all types of communication (linguistic, visual, and kinaesthetic-TPR)(Pavesi et al, 2001).

## Benefits of Classroom Diversity

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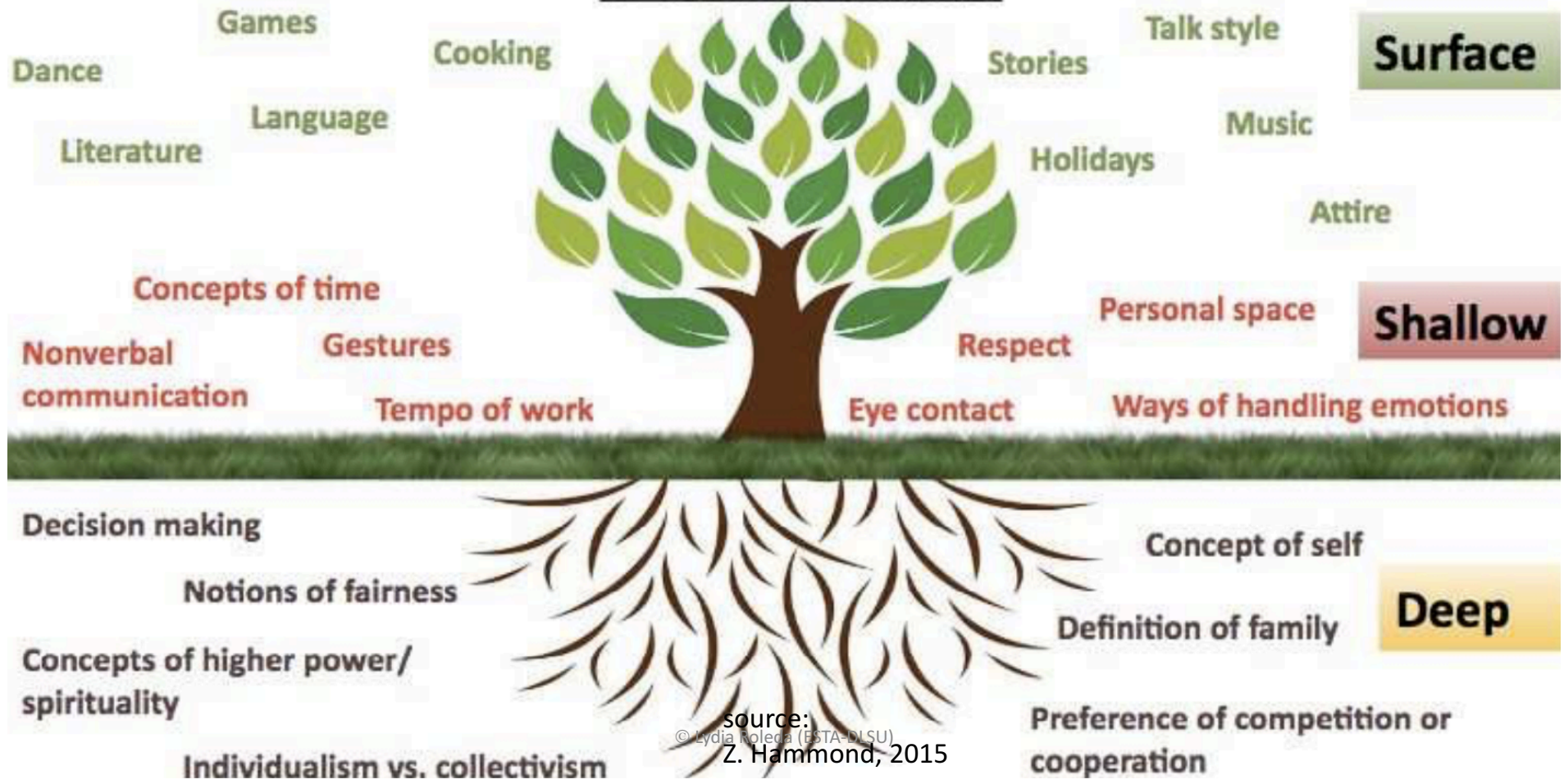
- Diversity Improves Cognitive Skills and Critical Thinking
- Exposure to Diversity Helps Students Enter Adulthood
- Diversity Prepares Students for Citizenship
- Diversity Promotes Creativity



*...The collective programming  
of the mind which distinguishes  
the members of one group  
or category of people from another.*

Hofstede, 1994

# 3 Levels of Culture



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Z. Hammond, 2015

## Culturally responsive teaching (CRT)

- “an educator’s ability to *recognize* students’ **cultural displays of learning and meaning making** and *respond positively and constructively* with teaching moves that use cultural knowledge as a *scaffold* to connect what the student knows to new concepts and content in order to promote effective **information processing**.
- All the while the educator understands the importance of being in a *relationship* and having a social-emotional *connection* to the student in order to create a **safe space for learning.**”

• (Z. Hammond, 2015, p.15)

# Deficit Thinking Paradigm

- *“...an ill-informed belief that a student’s failures are attributable to to the student’s lack of intellectual ability, linguistic inferiority, or family dysfunction...”*



Widen your "cultural aperture."



# The Academic Mindset

– beliefs and attitudes, or ways of perceiving oneself in relation to learning and intellectual work that motivate students to engage in a learning task

(Farrington et al., 2012)



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thank you...

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Educating Science Teachers for All (ESTA)  
<https://esta-project.eu>

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