DECODE

IO3 - National Conditions for Integrating ICT in Education – *"Romania"*

MULTIPLIER EVENT
2 Feb 2018

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INDEX

- National framework
- Innovation pathways
- SWOT analysis
- Recommendations
- *Conclusion*

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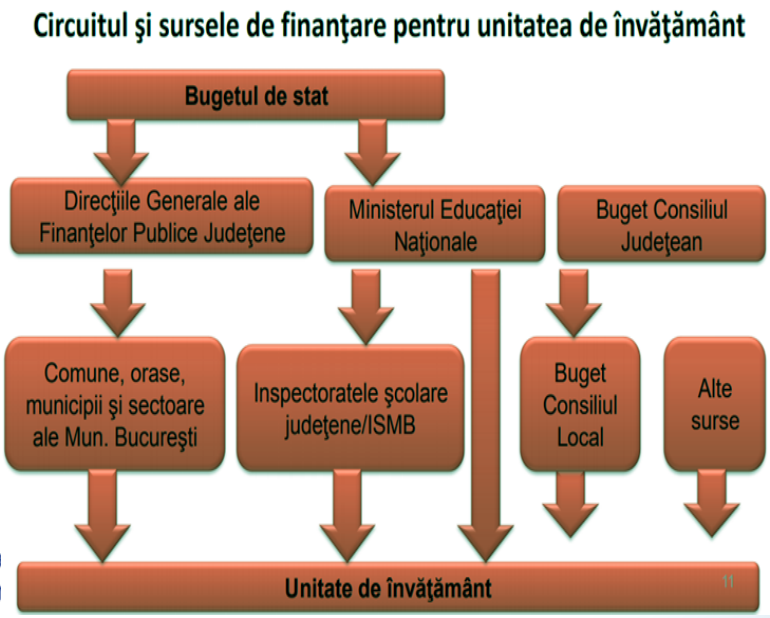
National Framework

- System structure
  - MEN / CSIs / LC / SM / SS / T
- Funding mechanisms
- Institutional structure
- Quality standards for schools
  - 2017 ARACIP public debate
- Teacher training
  - DPPD, DM / TTH



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National Framework

- Legal framework
  - National Education Act 1/2011
    - new roles of the schools
  - National Strategy on the Digital Agenda for Romania 2020
    - regular Internet use / e-government systems, broadband communication networks

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SWOT Analysis - Strengths

Curriculum reform in Romania

- Proiectul de Reformă Înv. Preuniversitar - 1995-2002: Programe scolare centrate pe competențe aplicate începând cu sep. 2000
- Education Plan OMENCS 3590/5.04.2016
- Directions for Restructuring the national Curriculum (ISE 2015)
  - student centeredness
  - competencies centeredness
  - integrated interdisciplinary approach
  - rethinking the time for learning
- The syllabus
  - covers 75% of the teaching hours within each subject, with 25% to the teacher's disposal

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SWOT Analysis - Weaknesses

Unattractive and inefficient education system

- increased ESL rate from 2010 onward > 19,1% - 2015 / Romania among the EU countries with the highest ESL rates
- 40% of 15 – 16 year old children are functionally illiterate (PISA 2012)
- 24% of youth are unemployed.
- 17% of 15-24 years old are NEETs
- 42% of students do not pass a Baccalaureate exam.

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SWOT Analysis - Weaknesses

The 2017 DESI Report: Romania is at the last positions in Europe in what concerns:

- Human Capital/Digital skills dimension
- the Use of Internet
- Integration of Digital Technology by businesses dimension
- Digital Public Services dimension

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SWOT Analysis - Weaknesses

„many teachers have difficulties in .. harnessing the key competences (digital competence) for their subject”.

Challenges:

- understanding their relevance;
- understanding how they sustain each other in the learning activities from a certain subject matter;
- designing learning activities to develop the key competencies;
- evaluation of competencies according to the education level

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SWOT Analysis - Opportunities

- National strategy for educational infrastructure „ICT equipments, e-learning platforms, computers etc.”
  - POR (AP 10 și AP 4) 400 mil Eur (300 UI) / PNDR 150 mil Eur (135 UI) / PNDL 80 mil Eur (350 UI)
- *Strategy for Reducing the Early School Leaving*
  - *attractive school environment*
  - *teacher training programs*
  - *curricular and extracurricular activities*

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RECOMMENDATIONS

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AMERICAN PSYCHOLOGICAL ASSOCIATION

- APA Learner-Centered Psychological Principles: A Framework For School Reform
  - Cognitive and Metacognitive Factors
  - Motivational and Affective Factors
  - Developmental and Social Factors
  - Individual Differences Factors

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RECOMMENDATIONS

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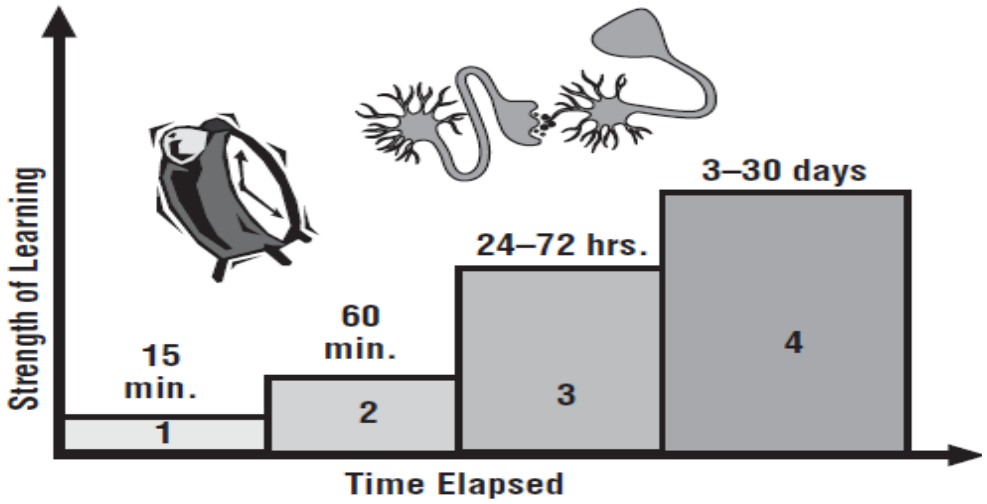
TIME SCHEDULE FOR COMPLEX LEARNING

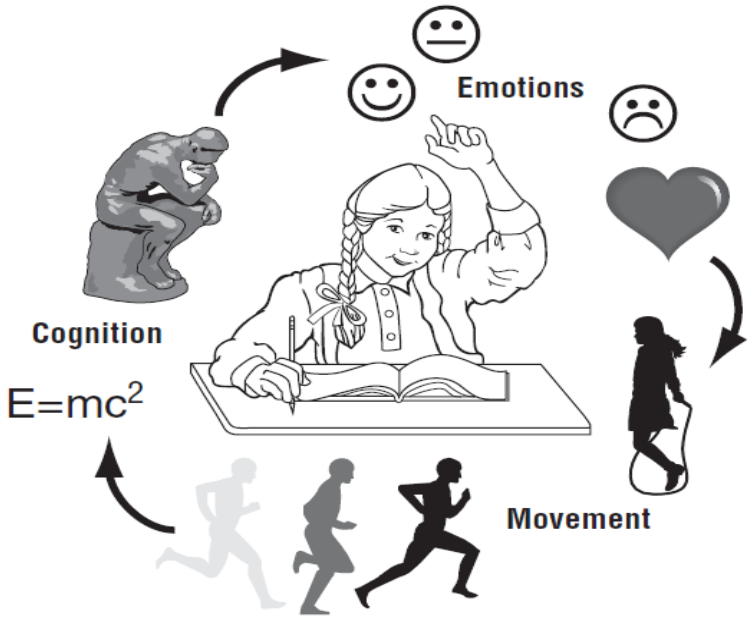


Balance in Learning

Active Learning
- Pair-sharing
- Building
- Discussing
- Drawing
- Performing

Settling Time
- Walking
- Reflecting
- Sleeping
- Eating lunch
- Taking breaks

Passive Learning
- Listening
- Watching
- Generalizing



New, Integrated Paradigm

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- Digital learning environment assures?
  - collective experience,
  - informal interaction;
  - group conectivity;
  - community credibility;
  - collective intelligence;
  - self-organising participation,
  - personalisation;
  - multiple identities;
  - recombinations.

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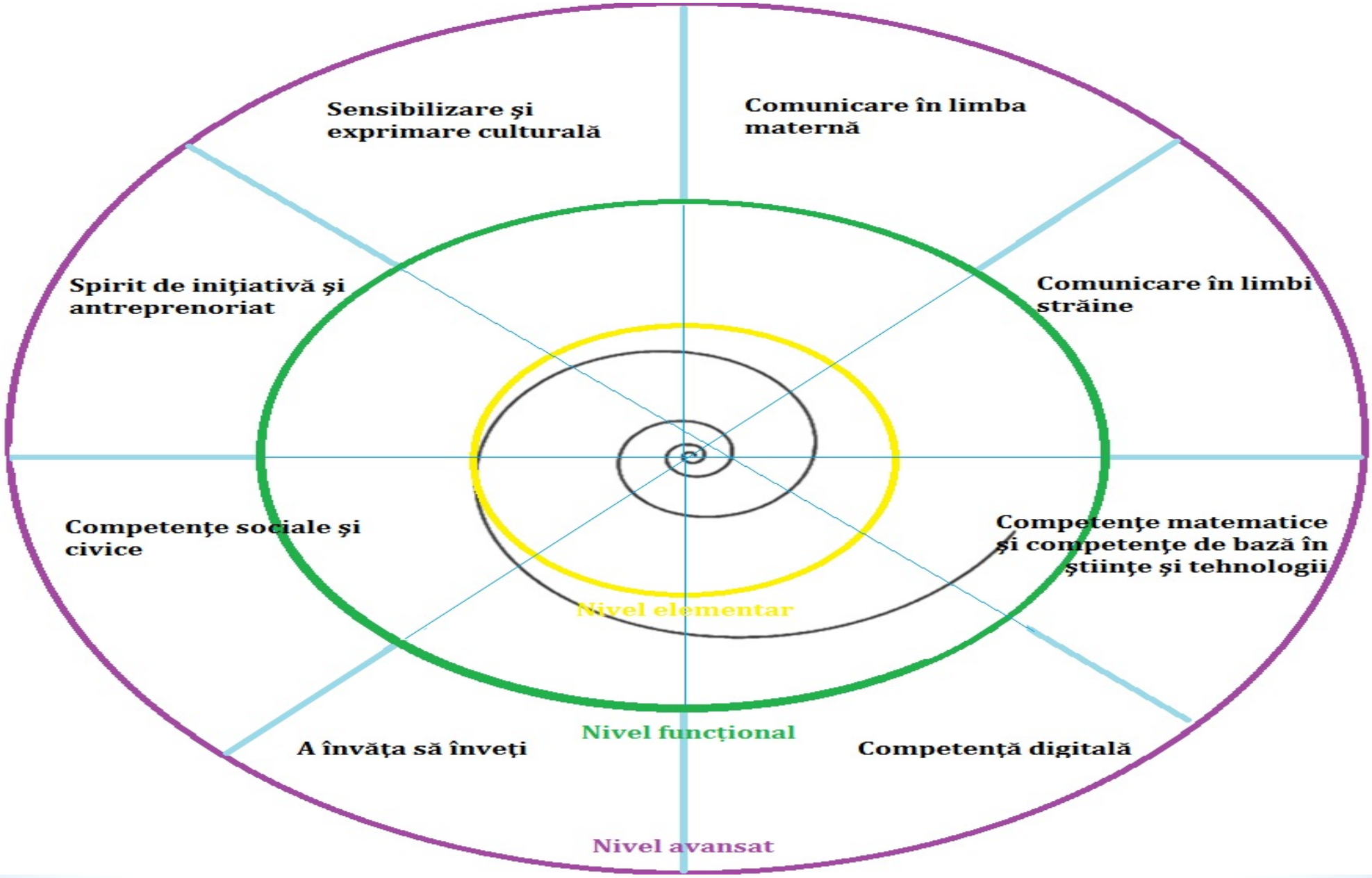
Sensibilizare şi exprimare culturală
Comunicare în limba maternă
Spirit de iniţiativă şi antreprenoriat
Comunicare în limbi străine
Competenţe sociale şi civice
Competenţe matematice şi competenţe de bază în ştiinţe şi tehnologii
Nivel elementar
Nivel funcţional
A învăţa să înveţi
Competenţă digitală
Nivel avansat

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Competence assessment requirements

- challenging leanring situation (opposed to a grid test)
- authenticity
- interactivity
- multi-dimensional learning harnessing existing skills, self-motivation and positive self-image

Criterii de apreciere şi indici pentru evaluarea portofoliului

Criterii de apreciere şi indici	DA	PARŢIAL	NU	OBSERVAŢII
1. PREZENTARE — evoluţia evidenţiată faţă de prima prezentare a portofoliului; — dacă este complet; — estetica generală. 2. REZUMATE — cu ceea ce a învăţat elevul şi cu succesele înregistrate; — calitatea referatelor; — concordanţă cu temele date; — cantitatea lucrărilor. 3. LUCRĂRI PRACTICE — adecvarea la scop; — eficienţa modului de lucru; — rezultatul lucrărilor practice; — dacă s-a lucrat în grup sau individual; — repartizarea eficientă a sarcinilor. 4. REFLECŢIILE elevului pe diferite părţi ale portofoliului; — reflecţii asupra propriei munci; — reflecţii despre lucrul în echipă (dacă e cazul); — aşteptările elevului de la activitatea desfăşurată. 5. CRONOLOGIE — punerea în ordine cronologică a materialelor. 6. AUTOEVALUAREA elevului: — autoevaluarea activităţilor desfăşurate; — concordanţa scop-rezultat; — progresul făcut; — nota pe care crede că o merită. 7. ALTE MATERIALE, calitatea acestora; — adecvarea la tema propusă;				

Competence assessment:

Matrice de specificaţii

Acest model de matrice cuprinde, pentru o unitate de învăţare, pentru un semestru sau un an şcolar, următoarele:

Competenţe evaluate (exemple)	**Teme (sau capitole) subordonate unităţii testate**					
	1	2	3	4	5	6
1.4.						
...						
3.2.						
6.1.						

Aplicarea, corectarea şi interpretarea rezultatelor

Testul, construit de profesor, se multiplică şi se distribuie elevilor.

Testul se aplică în unitatea de timp estimată ca suficientă nivelului mediu (de exemplu, 30' pentru teste secvenţiale, 30 - 40' pentru testele semestriale sau o oră, pentru testele integratoare, finale). Testul se aplică frontal, iar răspunsurile sunt strict eventuale. Se poate nota timpul de rezolvare pentru fiecare elev.

Corectarea testului, în raport cu baremul construit se realizează într-un tabel care cuprinde fiecare item cu un anumit punctaj (5p, 12p etc.).

Se pot reuni punctajele: (a) pe elev (de ex. 50p, 56p etc.), (b) pe item, conform modelului următor.

Elevul	Itemi						Total punctaj pe elev
	I	II	III	IV	V	VI	
1							
2							
..							
n							
Total punctaj pe item							

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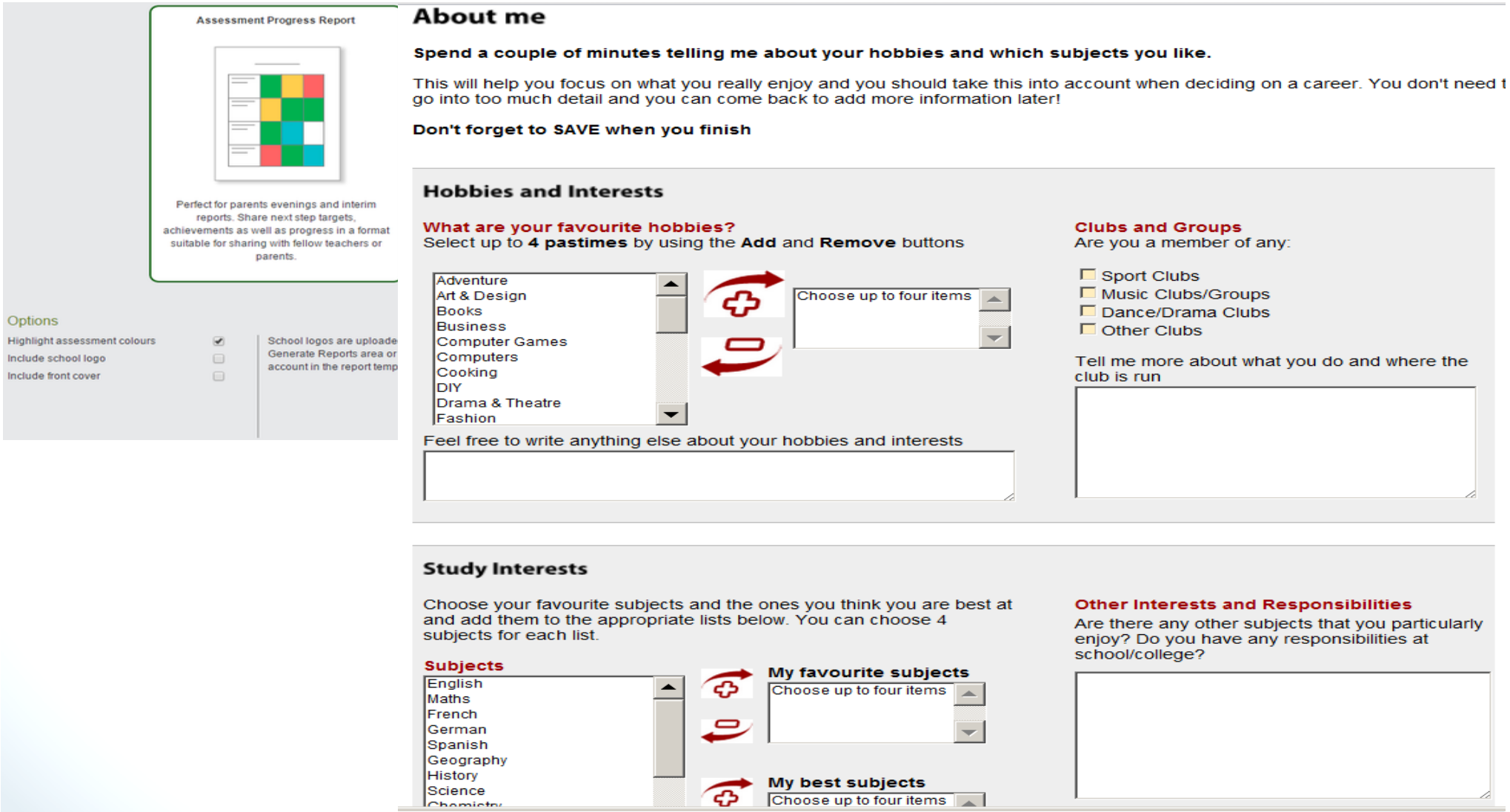
Competence assessment: classroommonitortraining.weebly.com



Web 1.0 .. 2.0 .. 3.0 .. 4.0 ..

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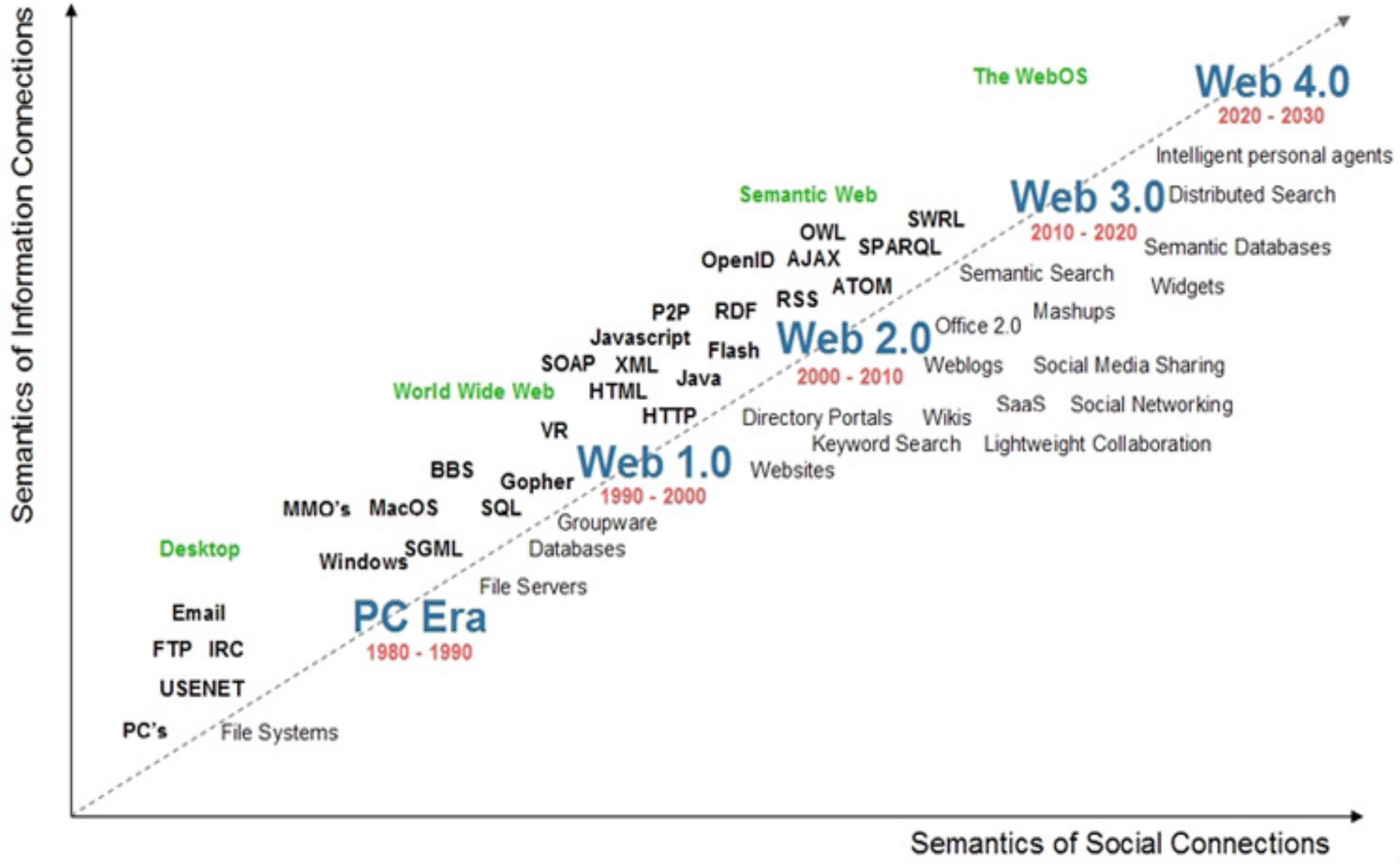
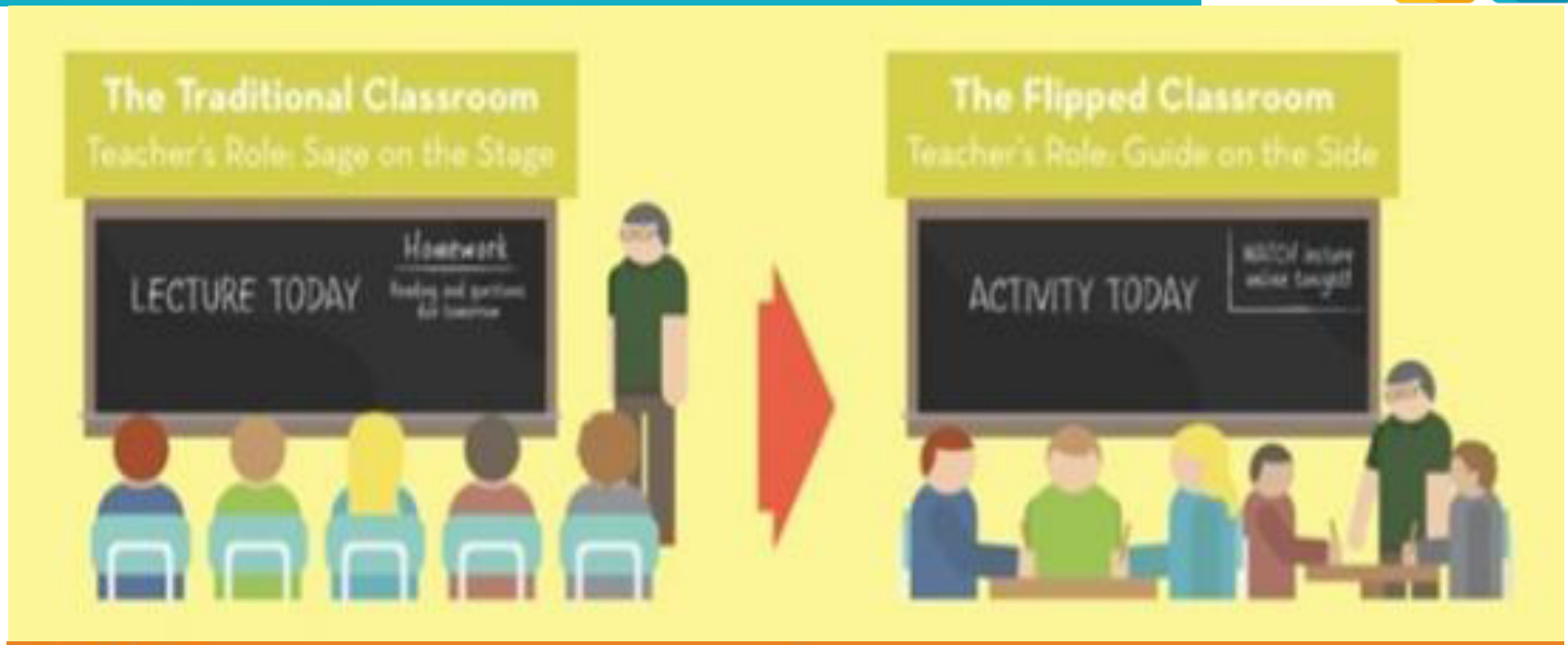
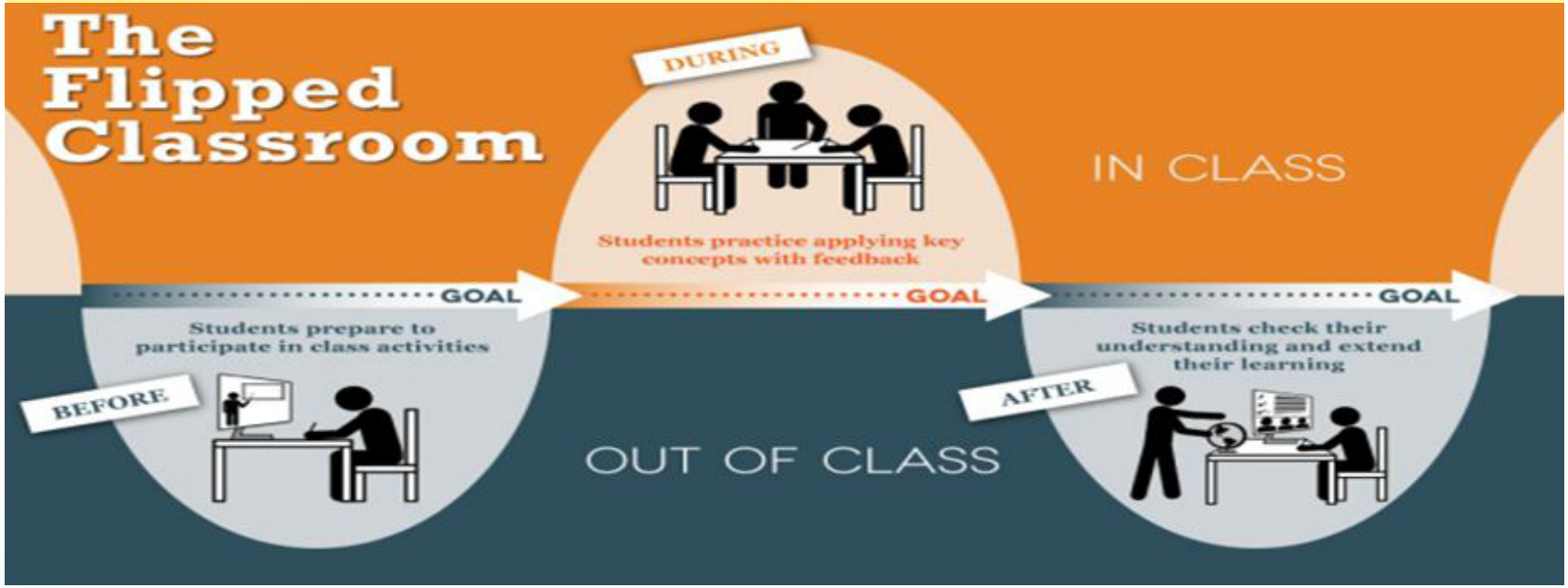



The Traditional Classroom
Teacher's Role: Sage on the Stage
LECTURE TODAY
Homework
The Flipped Classroom
Teacher's Role: Guide on the Side
ACTIVITY TODAY


The Flipped Classroom
DURING
IN CLASS
Students practice applying key concepts with feedback
GOAL
GOAL
GOAL
Students prepare to participate in class activities
BEFORE
Students check their understanding and extend their learning
AFTER
OUT OF CLASS

INNOVATION PATHWAYS

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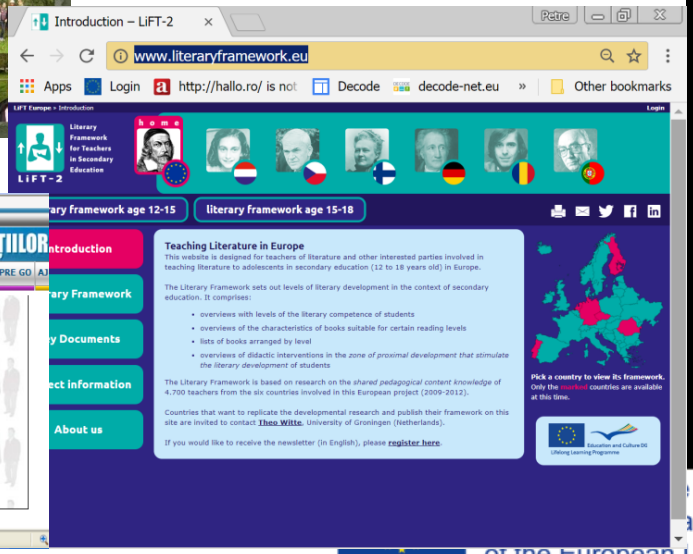
- Virtual commmunities of learning
- Project based learning
- ePortfolios for learning, evaluation, promotion
- Virtual laboratories
- ➢ Differentiated Instruction
  - ➢ literaryframework.eu



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- The National Progress Report for the Digital Agenda of the European Commission: ec.europa.eu/digital-single-market/en/scoreboard/romania
- National Strategy on the Digital Agenda for Romania 2020 (Sursa: http://gov.ro/en/government/cabinet-meeting/national-strategy-on-the-digital-agenda-for-romania-2020)

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