构建促进深度学习的表现性评价

赵雯
dianawen@Hotmail.com
东北大学
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Agenda

- **Key Competencies**
- Deep Learning & Performance Assessment
- Conclusion


21世纪教育首次为未知的未来培养人才
UNECO 2008

1. Key Competencies

Definition and Selection of Competencies: Theoretical and Conceptual Foundation (DeSeCo) (OECD, 2005)

1. Key Competencies

DeSeCo: (OECD, 2005)

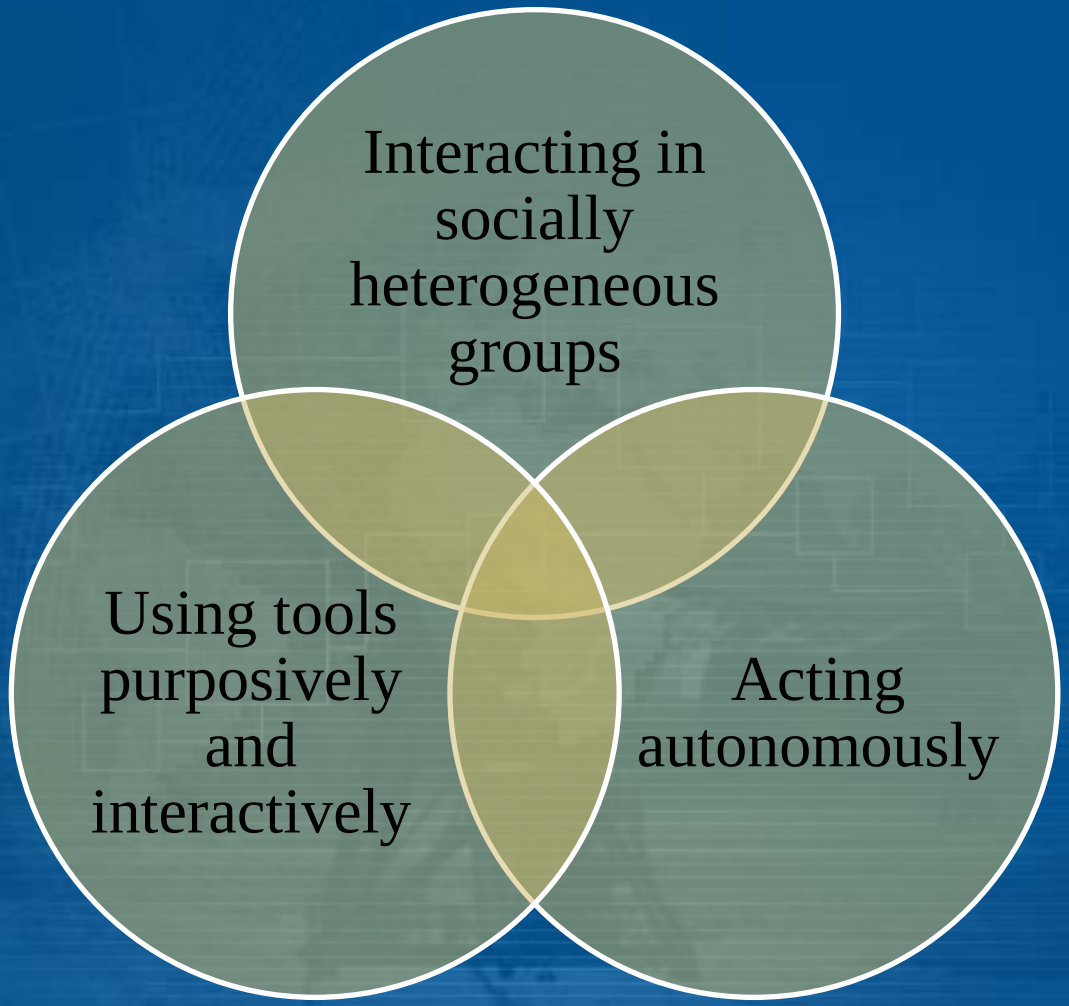
- A theory- and policy-oriented research program
- A broad interdisciplinary perspective
- Aimed at developing an overarching conceptual frame of reference for key competencies

1. Key Competencies

DeSeCo: (OECD, 2005)

- **Competence vs. competency**
- **Key competence**: competences that are important across multiple areas of life and that contribute to an overall successful and a well-functioning society

1. Key Competencies



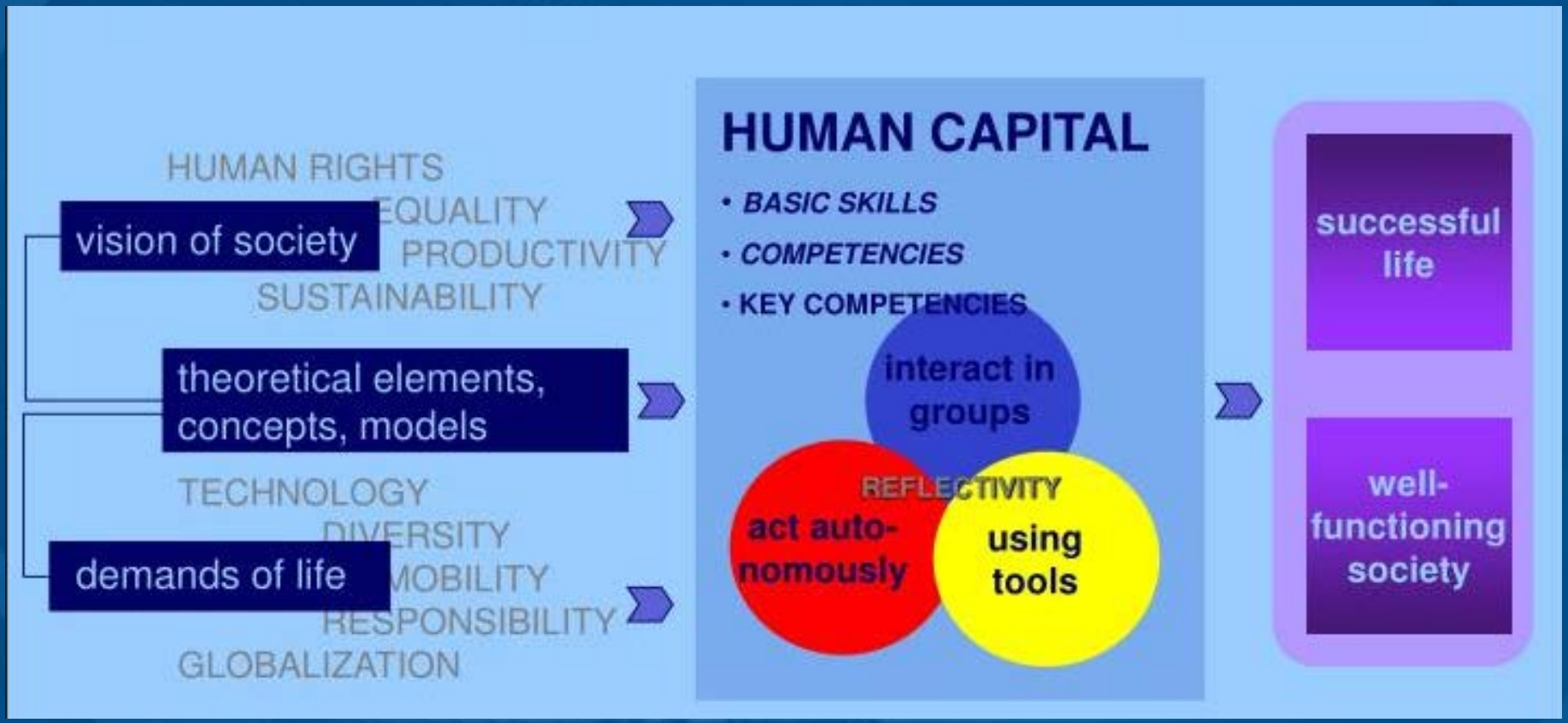
1. Key Competencies

Beyond reading, writing, and computing, what competencies are needed by individuals to live a successful life and for society to face the challenges of the present and the future in modern, democratic societies?

1. Key Competencies

Individual Level	Societal level
Gainful employment	Economic productivity
Personal health/safety	Democratic processes
Political participation	Solidarity, social cohesion
Social networks	Human rights & peace
Cultural participation	Equity & equality
Accomplishment & satisfaction	Ecological sustainability

1. Key Competencies



1. Key Competencies

European Union:

Competences for Lifelong Learning:

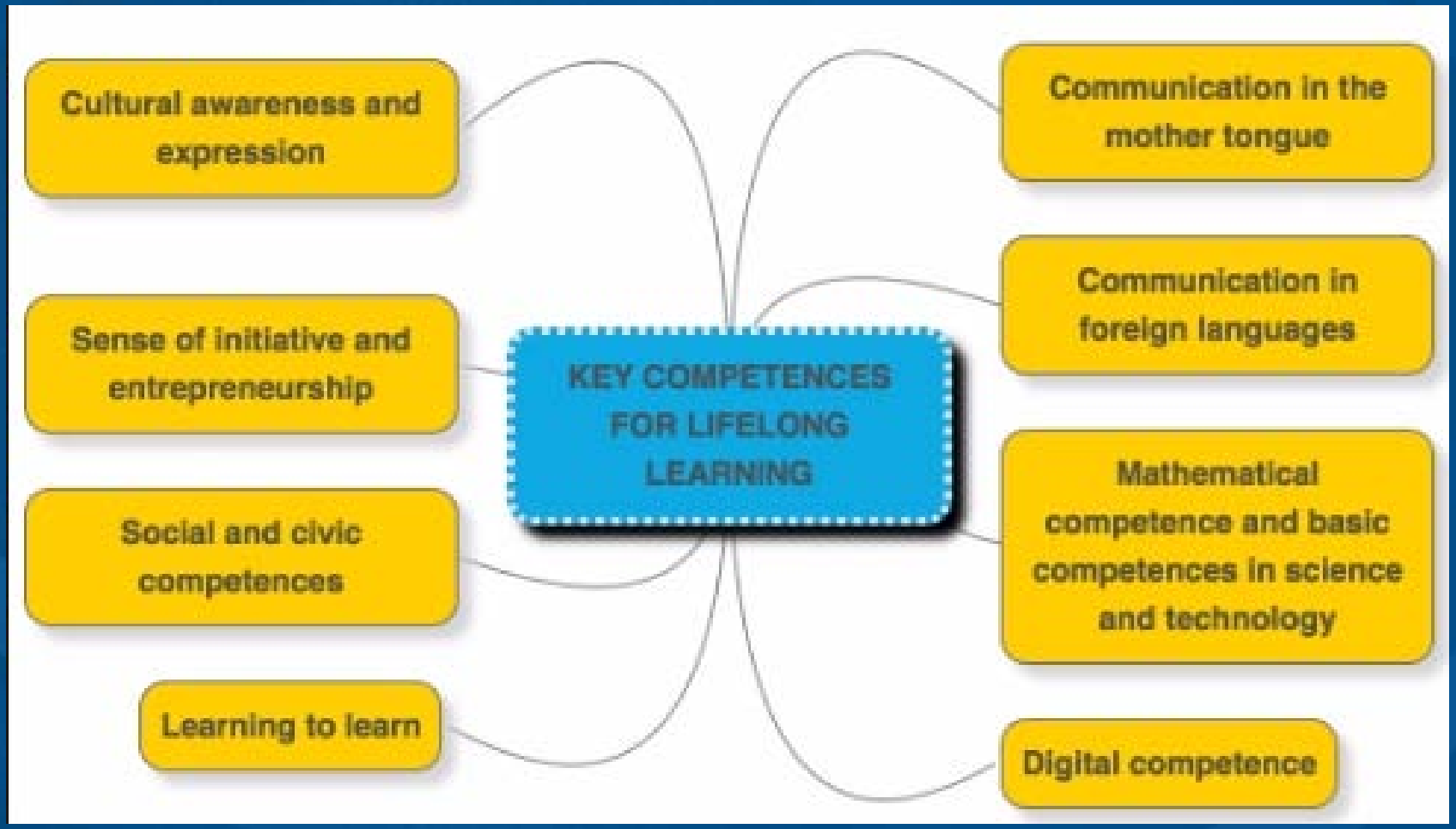
A European Reference Framework ,

November 2004 set out eight key

competences:

1. Key Competencies

8 key competences:



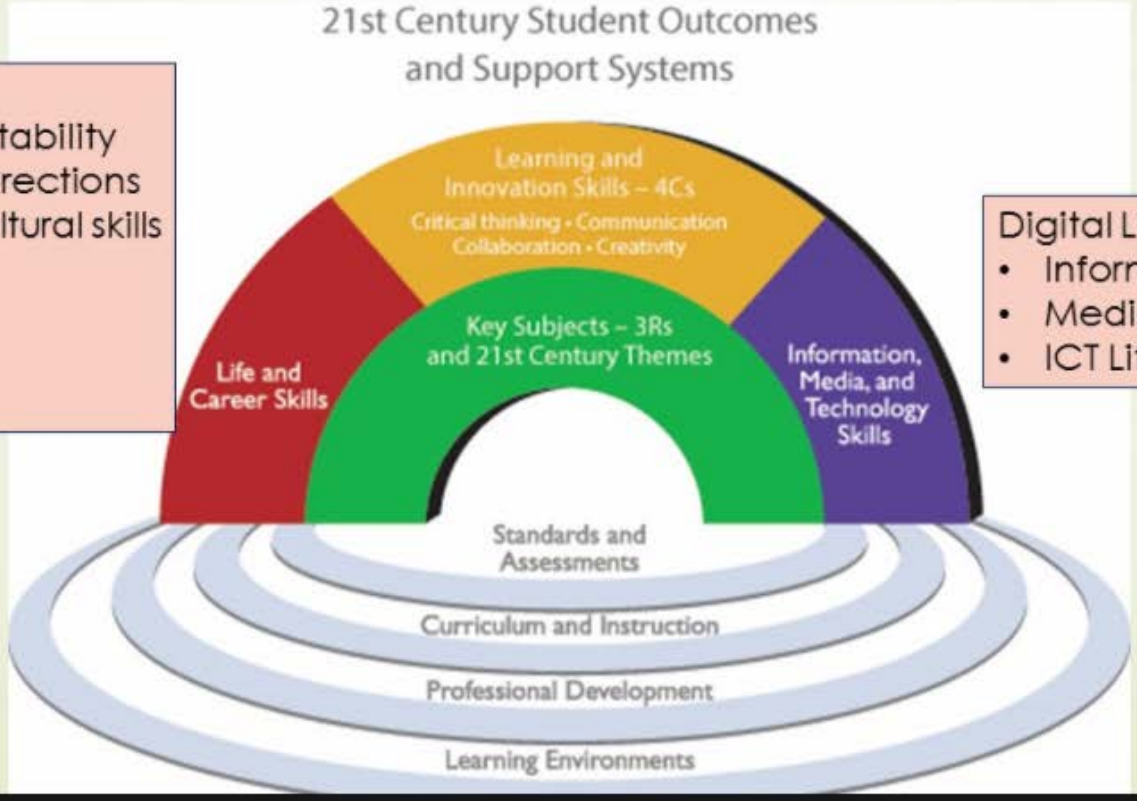
1. Key Competencies

United States

1. Key Competencies

The Conceptual Framework of 21st Century Learning

Life & Career Skills
- Flexibility & Adaptability
- Initiative & Self-directions
- Social & cross-cultural skills
- Productivity & Accountability
- Leadership & Responsibility



Digital Literacy
- Information Literacy
- Media Literacy
- ICT Literacy

21世纪能力框架

批判性思维

归纳能力

解决问题

创新

学习与创新能力

价值观

公民意识

社会责任

沟通能力

合作能力

跨文化能力

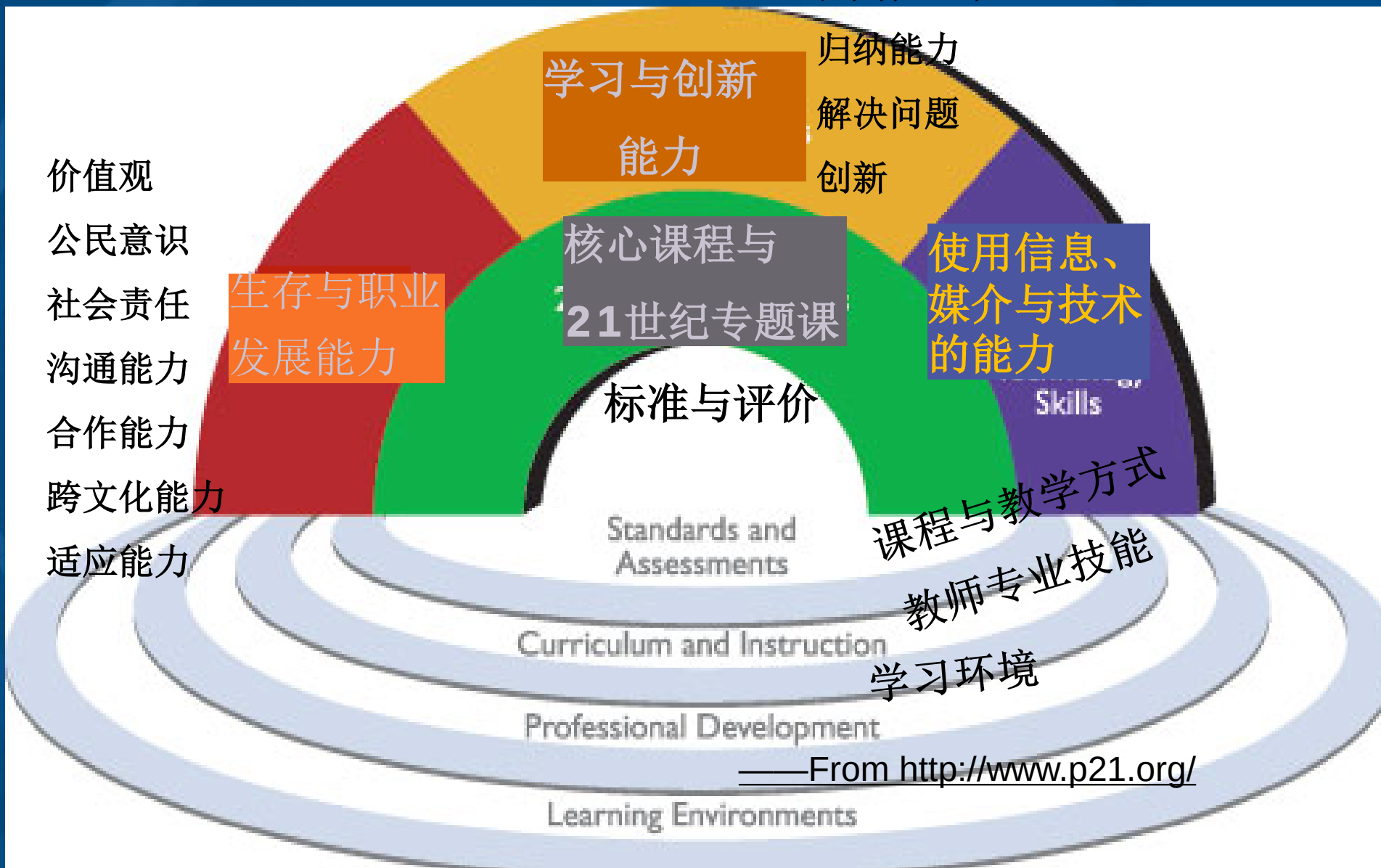
适应能力

生存与职业发展能力

核心课程与21世纪专题课

使用信息、媒介与技术的能力

标准与评价



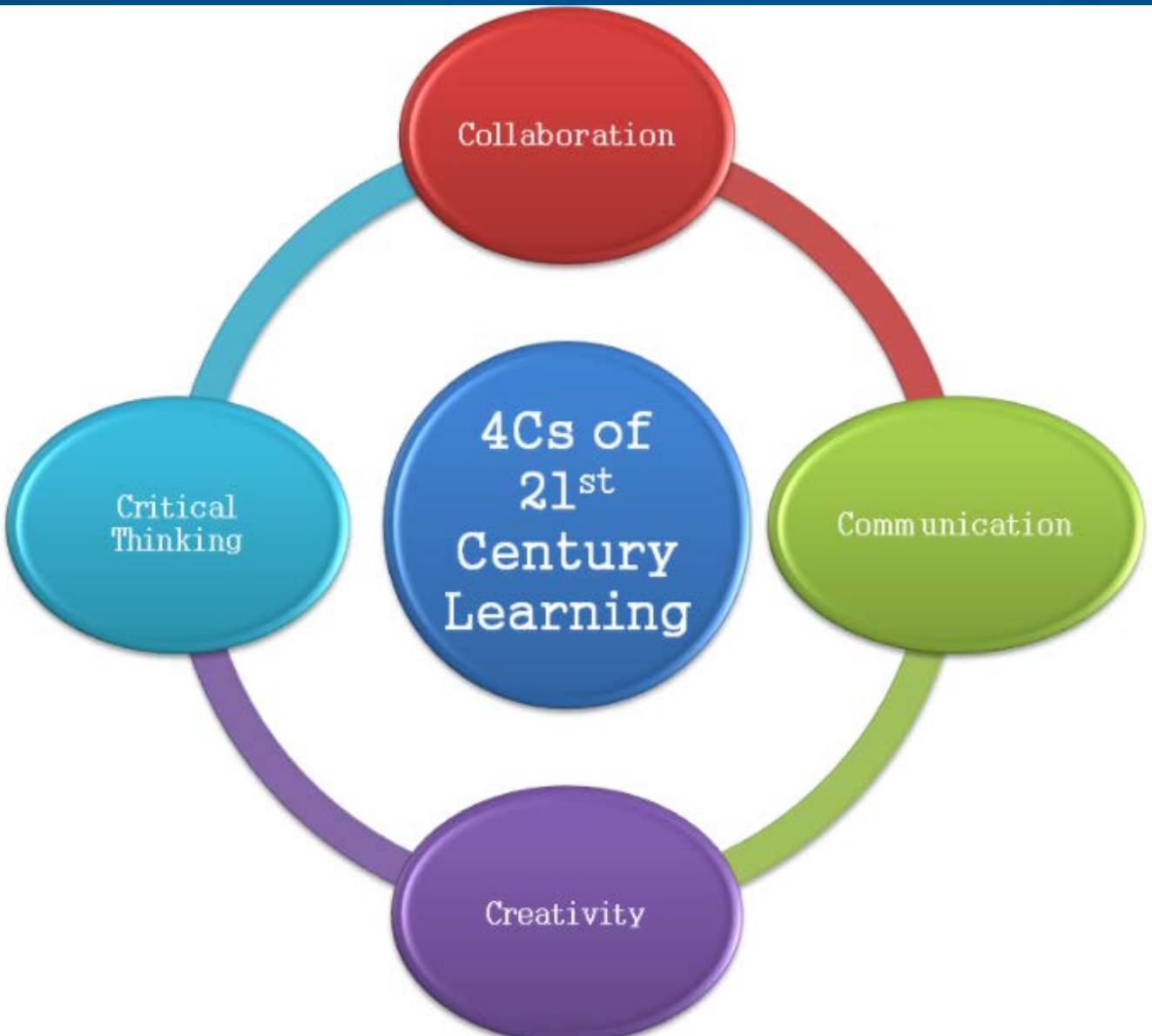
课程与教学方式

教师专业技能

学习环境

——From http://www.p21.org/

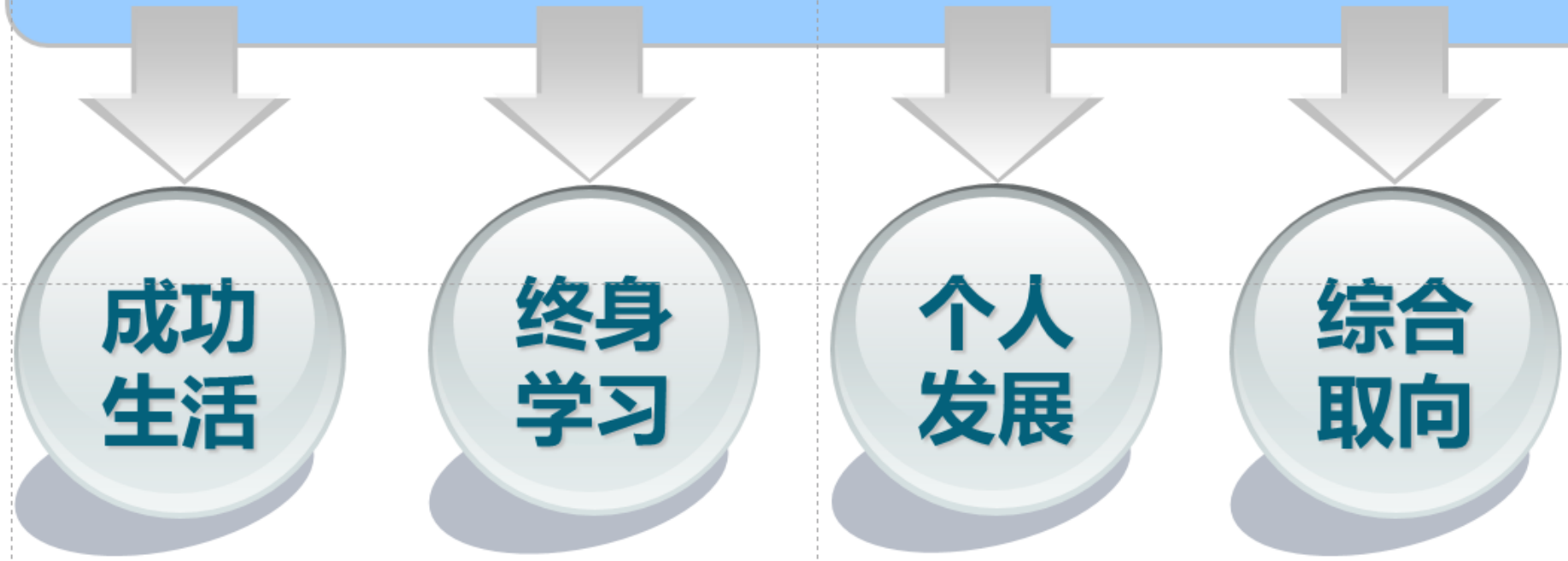
1. Key Competencies



1. Key Competencies

核心素养研究的不同价值取向

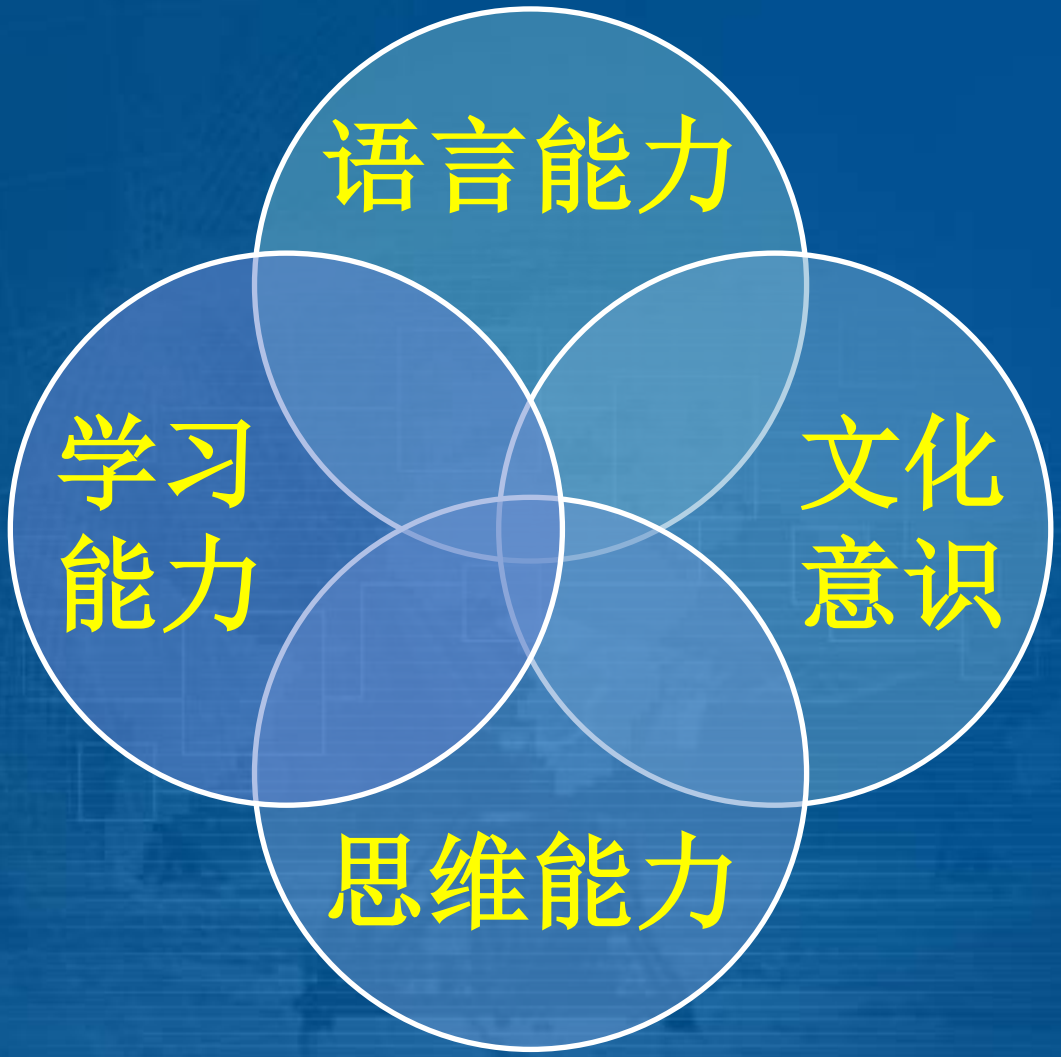
1. 实现成功生活：OECD、台湾、日本等
2. 促进终身学习：UNESCO、欧盟等
3. 促进个人发展：新加坡等
4. 内容、目标与途径相结合：美国等



整体呈现与社会发展、国家发展相统一的趋势

1. Key Competencies

1. Key Competencies



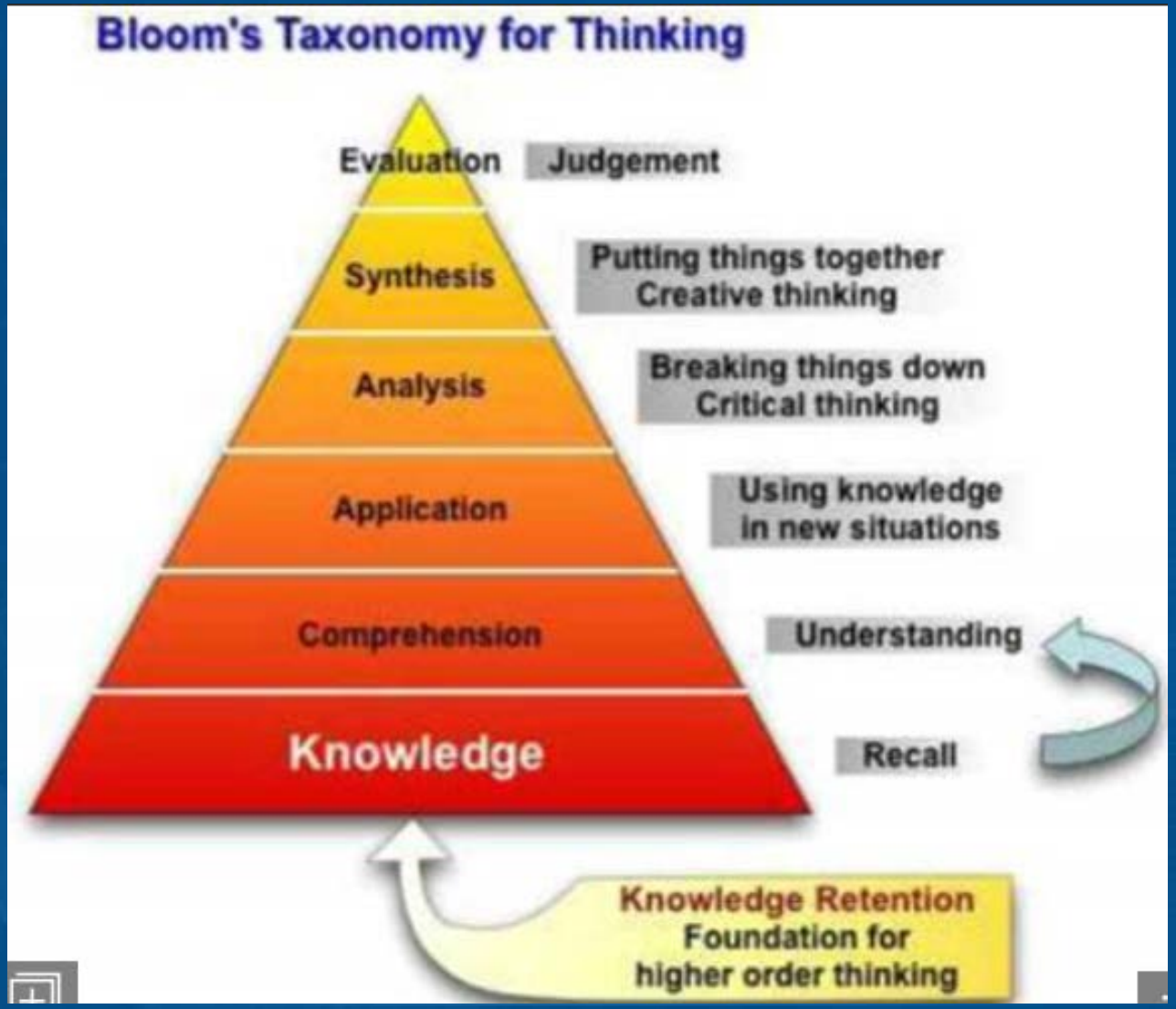
Transforming Education and 21st Century skills Drives our Education System

- New skills（ i.e., communication skills, collaboration, critical decision making and creative skills, social and cooperative skills） are essential skills to be developed by all the curriculum.
- These skills are important if students are to achieve their potential and to participate fully in the society, including the world of work.

Agenda

- Key Competencies
- **Deep Learning & Performance Assessment**
- Conclusion

2. Deep Learning & Performance Assessment

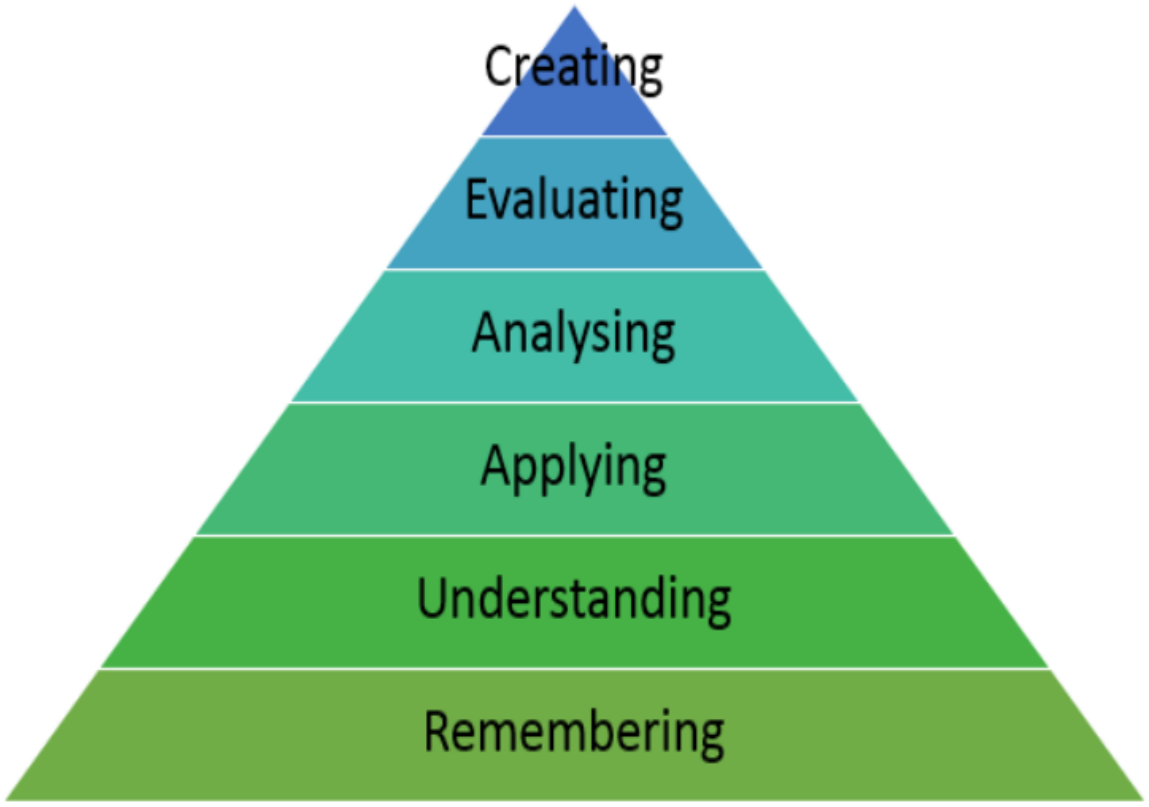


布卢姆的认知领域学习目标分类

2. Deep Learning & Performance Assessment

- Meaningful of deep learning
- Students' creativity, originality and critical thinking is required at higher levels
- More authentic than lower levels. Thinking at this level is more likely to represent types of performances required in the real world (ill/well-structured).

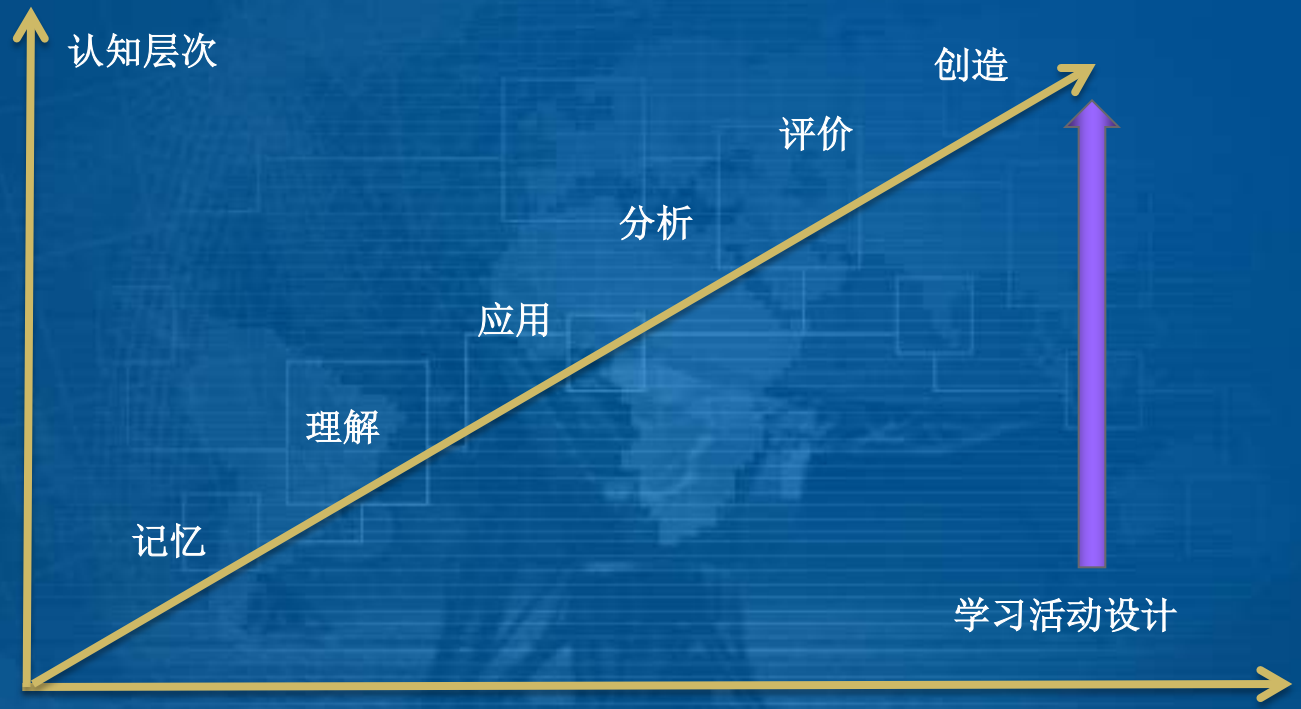
2. Deep Learning & Performance Assessment



Higher order skills – require more complex cognitive processes such as establishing connections between existing knowledge and creating new meaning.

Lower order skills – learners can recall and reproduce
without context.

2. Deep Learning & Performance Assessment



学习行为认知层级

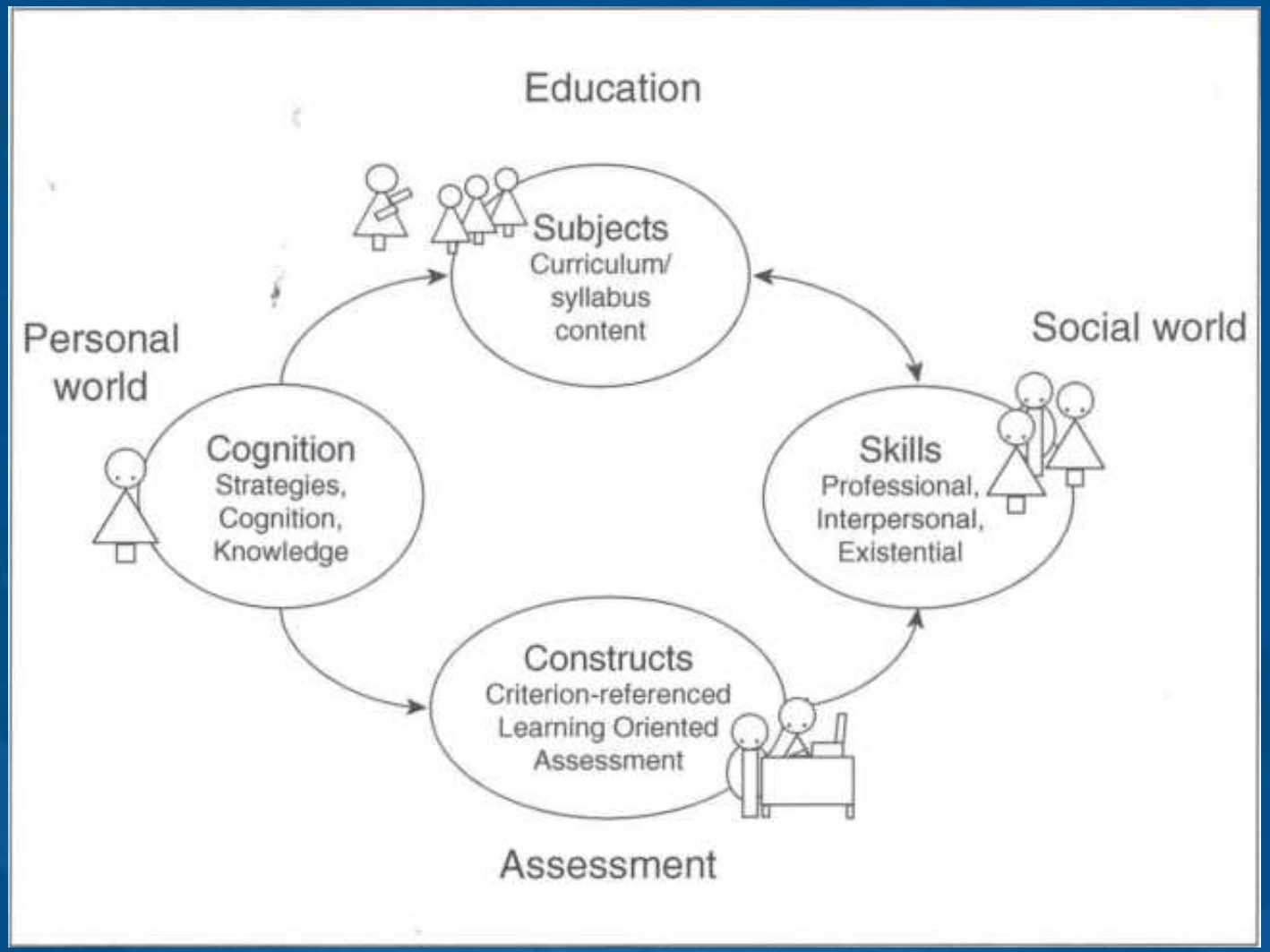
认知层次	行为动词	典型在线学习活动
Remembering	Recognizing, Recalling	浏览、下载、标记、收藏、订阅、笔记、评分等
Understanding	Interpreting, Exemplifying, Classifying, Summarizing, Inferring, Comparing, Explaining	做作业、打标签、简短评论、概念图、韦恩图、六项思考帽、批注、讨论等
Applying	Executing, Implementing	在线编辑、在线辩论、题目设计、内容改写、写博客、制作作品等
Analyzing	Differentiating, Organizing, Attributing	案例分析、写报告、做在线演讲、设计调查、绘制结构图、SWOT分析等
Evaluating	Checking, Critiquing	分析评论、逻辑推理、复杂辩论、问题辨析等
Creating	Generating, Planning, Producing	创作内容、制定计划、问题解决、设计作品、策展等

2. Deep Learning & Performance Assessment

比较类别	深度学习	浅层学习
理论基础	建构主义、情境认知、分布式认知、元认知理论	行为主义理论
学习目标	知识迁移与实际应用	知识记忆与初步理解
学习动机	内部动机	外部动机
知识联系	要在新旧知识之间建立联系	新旧知识之间没有联系
学习策略	教师是学生学习的指导者，学生在教师的指导下自主学习	教师进行灌输式教学，学生被动学习
思维层次	高阶思维	低阶思维
迁移能力	能够把学到的知识与技能应用于新的情景	不能融会贯通，不能灵活运用所学知识
学习态度	积极主动学习	被动接受学习
学习反思	对学习和理解 的过程进行反思	没有对学习过程等进行反思

2. Assessment

Four Worlds of Learning (Jones & Saville, 2016)

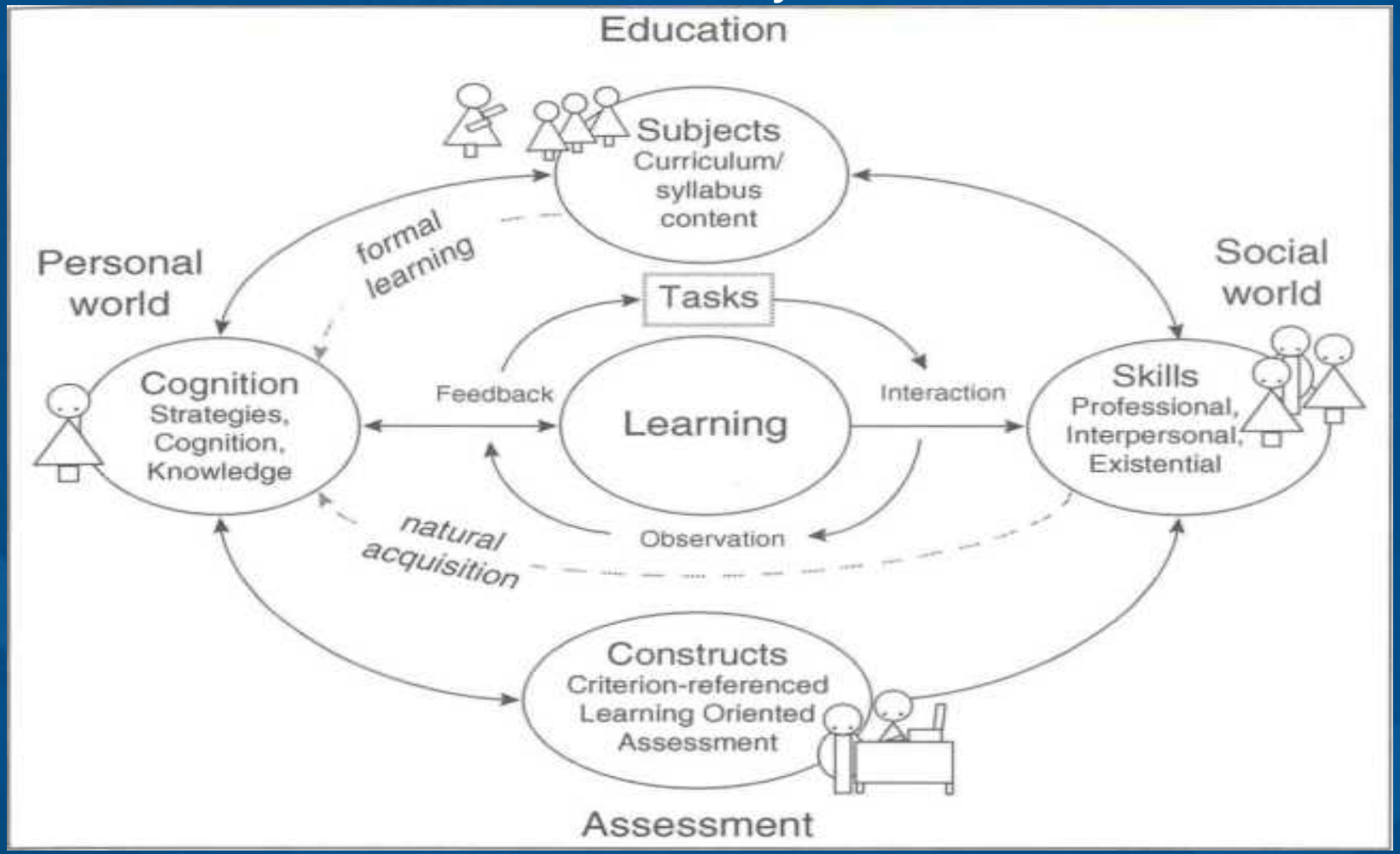


2. Deep Learning & Performance Assessment

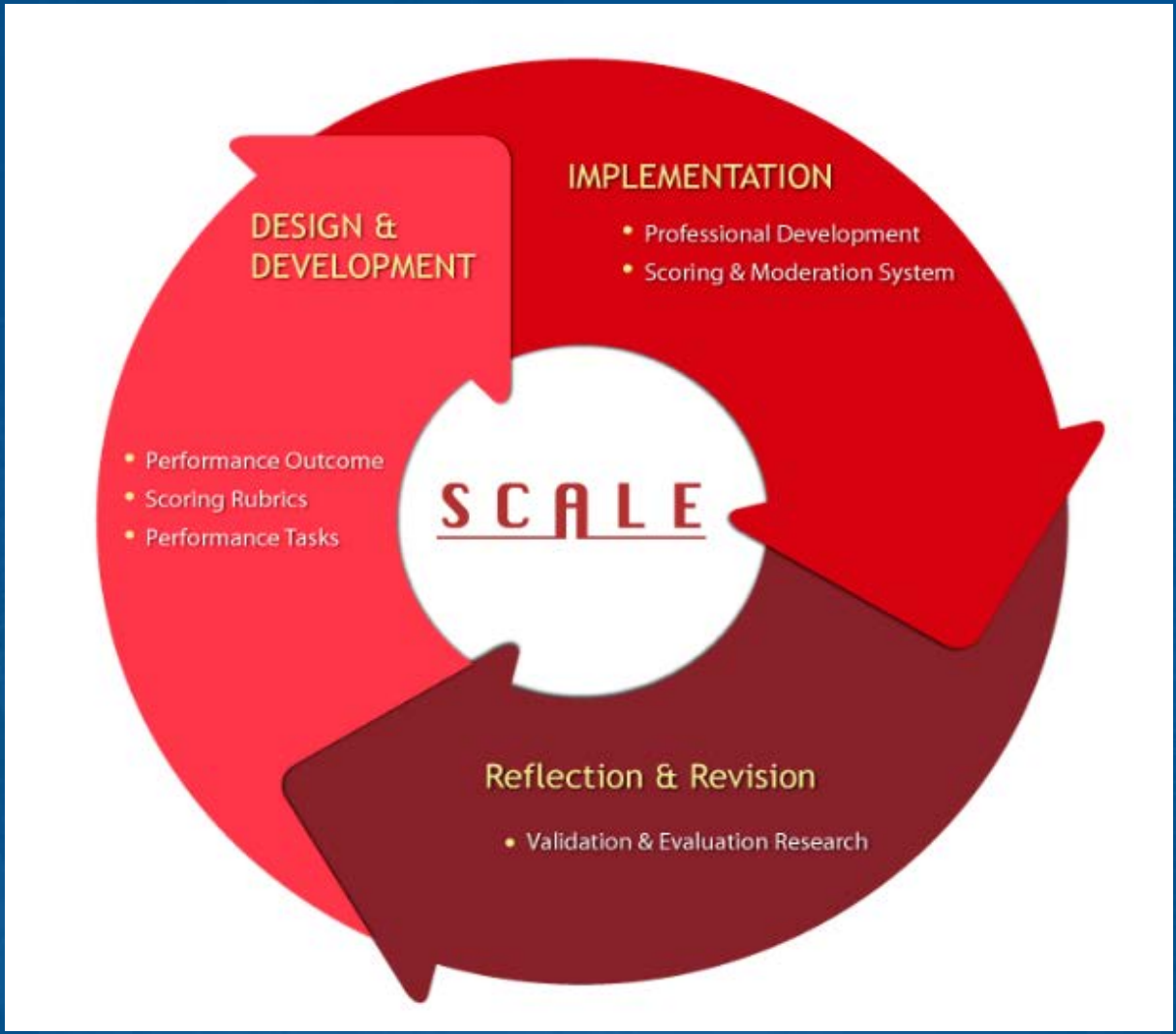
- Performance assessment (PA), used by McNamara (1996), involves both process and product.
- PA tasks involve students in constructing various types of products for diverse audience.

2. Deep Learning & Performance Assessment

The four worlds linked by a focus on task



2. Deep Learning & Performance Assessment



2. Deep Learning & Performance Assessment

Fuel For Examination: Investigating The Natural Gas Fracking Hullabaloo

TYPE OF TASK
Curriculum Embedded Task

SOURCE
Literacy Design Collaborative (LDC)

AUTHOR
Annette Brown

RATING
0/5

SUBJECT
Science

COURSE
Environmental Science

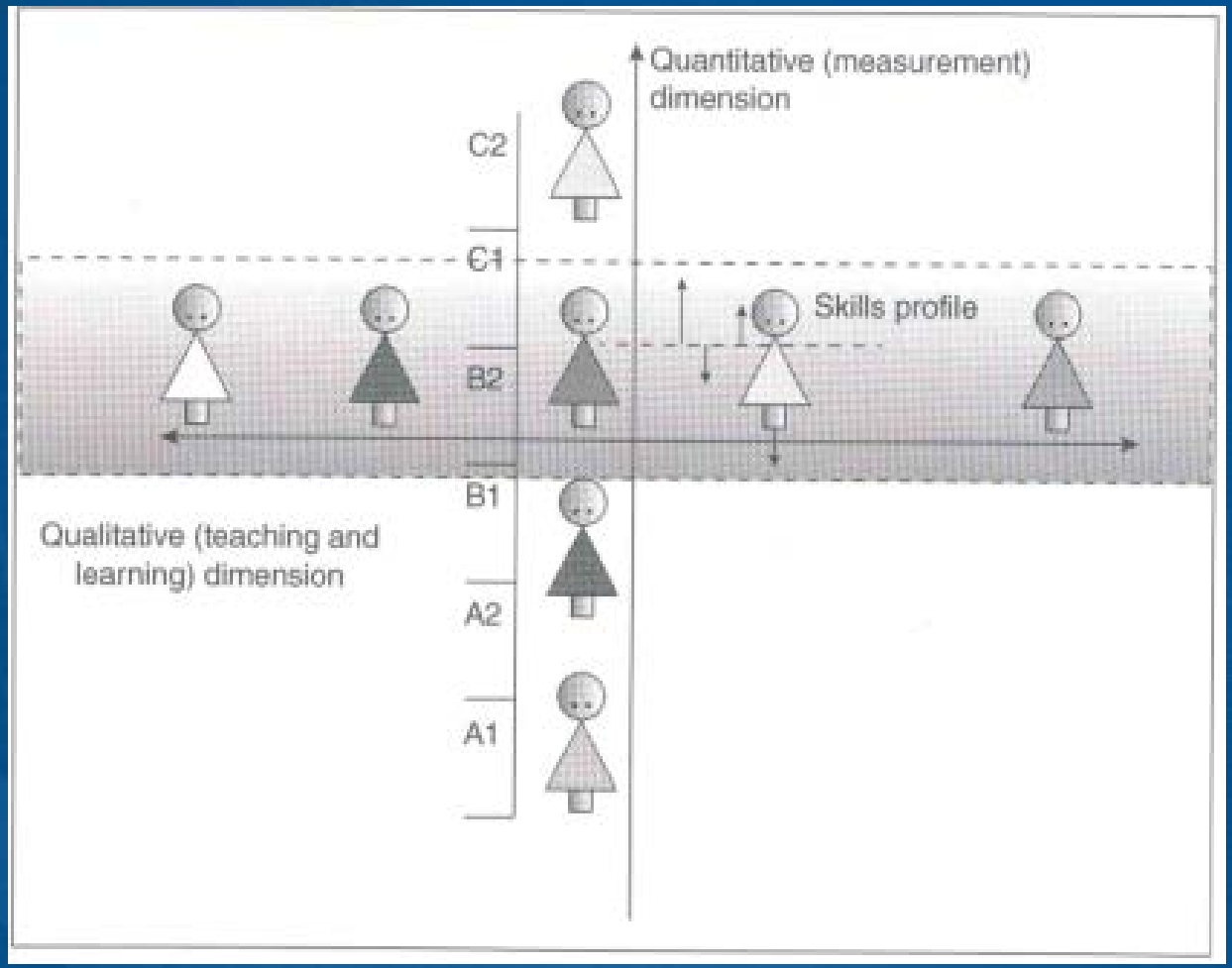
GRADE LEVEL
7, 8, 9

GRADE LEVEL SPAN
Middle (6-8)
High (9-12)

What is hydraulic fracturing? Why is it so controversial? In this lesson, students learn how to develop a paper and poster in which they investigate the facts behind the hydrofracking controversy, identify how the demand for natural gas is changing, and research and map how natural gas...

TAGS
#ENVIRONMENT #FRACKING #NATURAL GAS #STUDENT WORK RUBRIC - ARGUMENTATION TASK - GRADES 9-12

2. Deep Learning & Performance Assessment



SMART Learning 智慧学习

- S: Skill-oriented learning
- M: Modeling first
- A: Active learning
- R: Research-based learning
- T: Team learning

SMART Teaching 智慧教学

- S: Student-centered
- M: Model for Student
- A: Activity Designing
- R: Resources Designing
- T: Tutor Role

教学环境

- 网络教学平台（Virtual Academy）:http://va.neu.edu.cn
- **基于任务的表现性评价库（教师+学生）**
- **学习助手**
- 该平台完全以学生为中心，为每位学生创建个人网络学习的空间（包括其选择的课程资源、教师和同学、自己的计算机作品等），它应用了虚拟社区、博客、Wiki、微博、搜索引擎、学习分析技术尤其支持师生、生生互动的智慧学习。

Conclusion

- Key competencies/Core skills/Generic skills
- Disciplinary & interdisciplinary competence
- Situated cognition/learning

Q & A

交流与分享，谢谢！