

# Embedding the development and assessment of key skills into lesson design.

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**Assessment**



**Teaching**

**Learning**







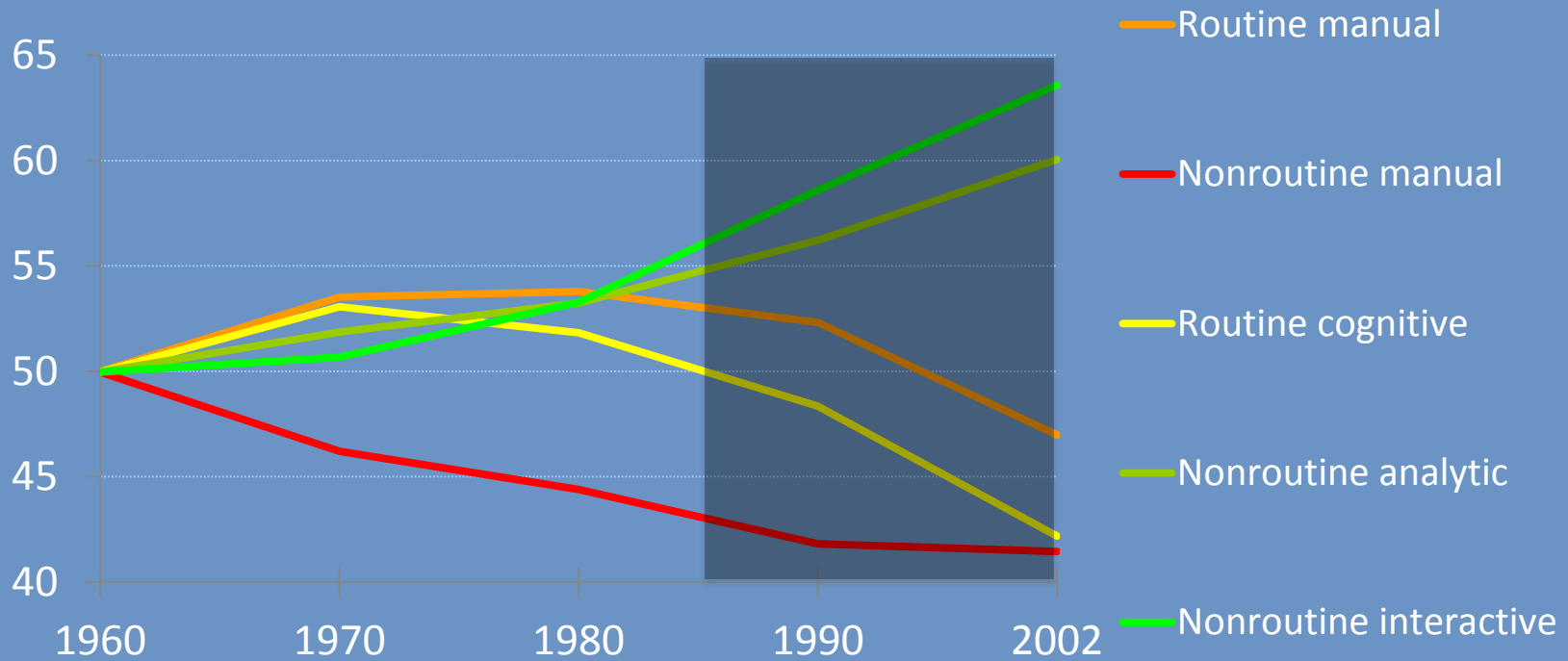




# How the demand for skills has changed

Economy-wide measures of routine and non-routine task input (US)

Meantask input as percentiles of the 1960 task distribution



(Levy and Murnane)

**Critical Thinking**  
**Complex Communication**



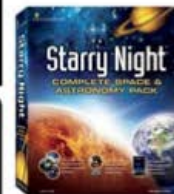
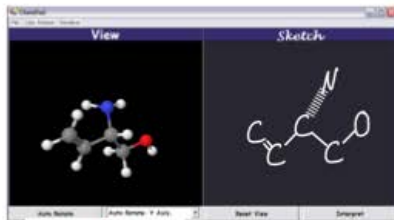
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WORDPRESS



GAMMINDER

the education arcade Wordle™













# Innovative Teaching and Learning

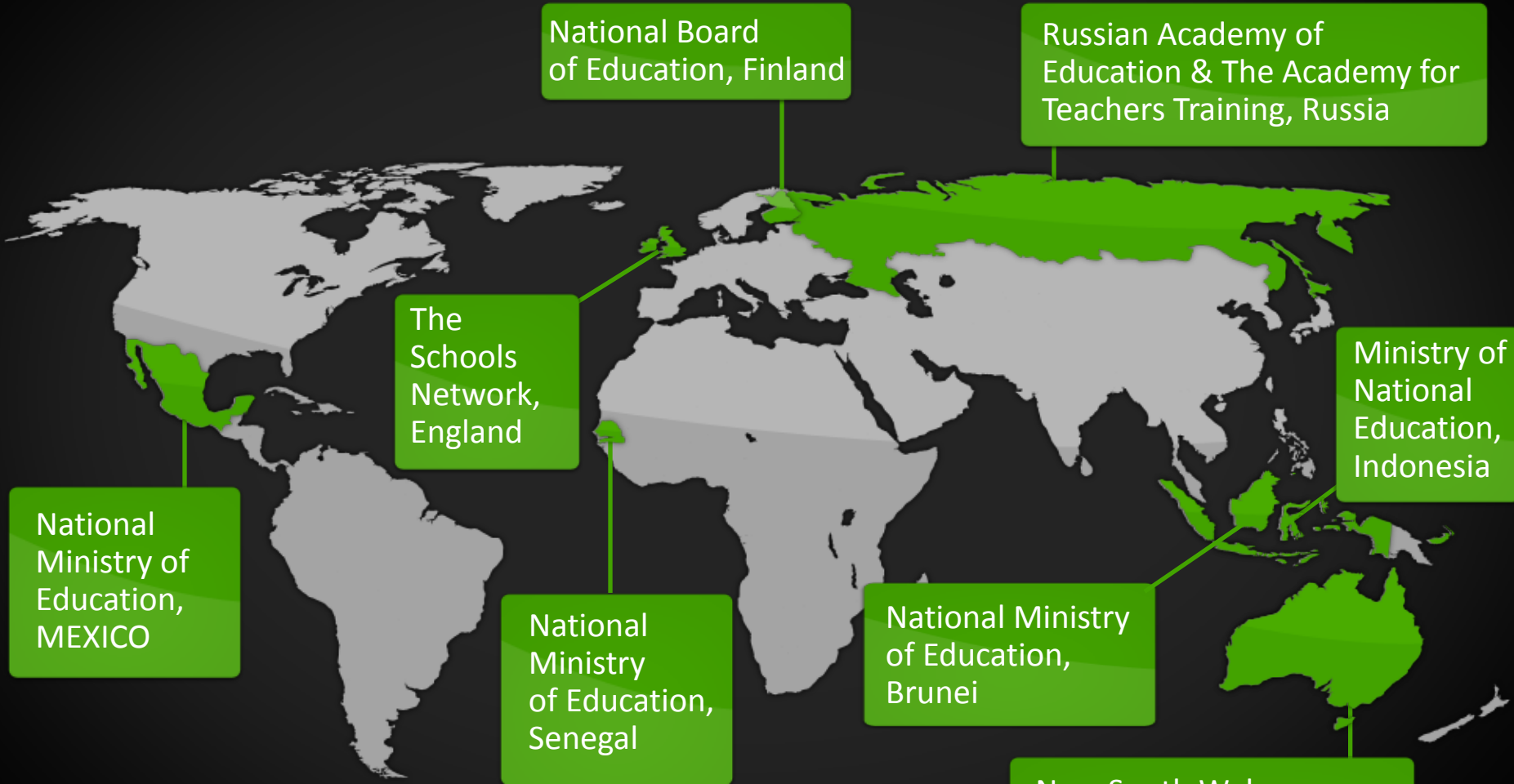
## MOVING FROM THEORY TO ACTION





**8 COUNTRIES  
PARTICIPATING IN ITL**

**45+ COUNTRIES  
USING METHODS**



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# ITL RESEARCH

## MIXED METHODS USED

### Across

**159** survey schools  
**24** site visit schools

Teacher & School  
Leader Interviews

**86** teachers  
**18** school leaders

Teacher & School  
Leader Surveys

**4,038** teachers  
**159** school leaders

Classroom  
Observations

**81** classrooms

Learning Activity  
Analysis

**967** learning activities

Student Work  
Analysis

**3,367** student work

Student Focus  
Groups

**33** focus groups

Education  
System Change

School  
Leadership  
and Culture

Innovative  
Teaching  
Practices



Methods Published at: [www.itlresearch.com](http://www.itlresearch.com)

# WHOLE SYSTEM RENEWAL

Education  
System Change

School  
Leadership  
and Culture

Innovative  
Teaching  
Practices

Individuals with  
skills for life and  
work today





# ITL RESEARCH

## Key Questions

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Education  
System Change

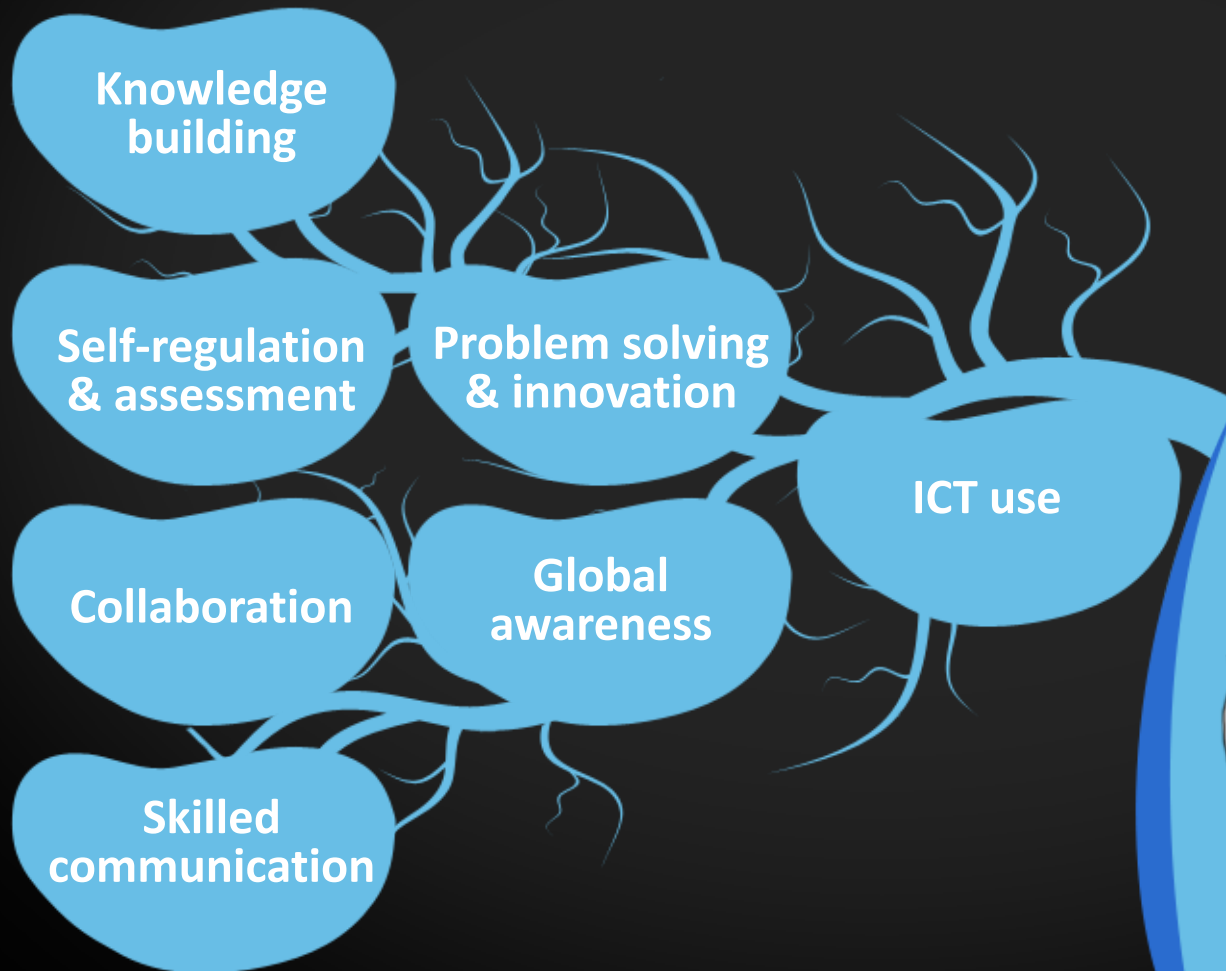
School  
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Individuals with  
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# SKILLS FOR LIFE AND WORK TODAY



# WHAT ARE INNOVATIVE TEACHING PRACTICES?

## Student Centered Pedagogies

Personalised  
Collaborative  
Knowledge building  
Self-regulation

## Extending Learning

Problem Solving  
24/7 learning  
opportunities  
Global and cultural  
understanding

## ICT Integration

By educators  
By students  
Basic usage vs.  
Higher-level usage  
(for knowledge  
building and  
creativity)



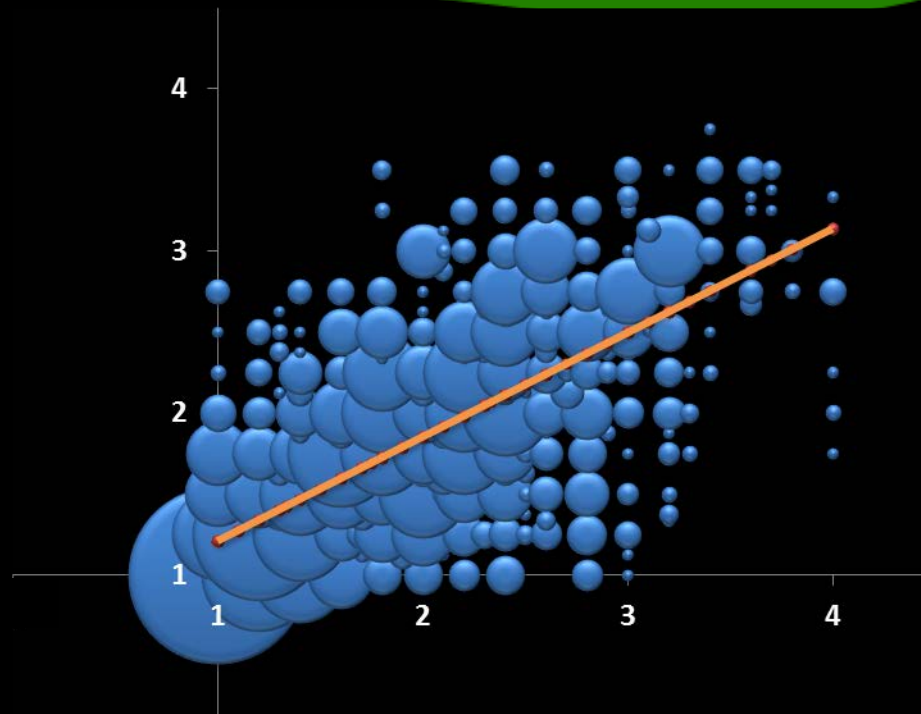


# ITL Research Findings 2011

# INNOVATIVE TEACHING PRACTICES ARE ASSOCIATED WITH 21ST CENTURY LEARNING OUTCOMES... BUT GOOD EXAMPLES ARE RARE

Students 21C Skills Score

*When educators provide learning activities that ask for 21 C skills, students can and do demonstrate those skills.*



Learning Activity Score  
(Innovative Teaching)

# ITL Learning Activity Dimensions

<b>Construct</b>	<b>Key Question</b>
<b>Collaboration</b>	Are students required to share responsibility and make substantive decisions with other people? Is their work interdependent?
<b>Knowledge Construction</b>	Are students required to construct and apply knowledge? Is that knowledge interdisciplinary?
<b>Use of ICT for learning</b>	Are students passive consumers of ICT, active users, or designers of an ICT product for an authentic audience?
<b>Problem-solving and innovation</b>	Does the learning activity require solving authentic, real-world problems? Are students' solutions implemented in the real world?
<b>Self-regulation</b>	Is the learning activity long-term? Do students plan and assess their own work, and revise their work based on feedback?
<b>Skilled communication</b>	Are students required to communicate their own ideas regarding a concept or issue? Must their communication be supported with evidence and designed with a particular audience in mind?

# Collaboration

- <http://padlet.com/Deirdre/NCCA>
- What do you understand by Collaboration?
- What skills are required to collaborate effectively?





# Big ideas: Working together

IS THIS WORKING TOGETHER?	
YES:	NO:
.	.
.	.

A small group discusses an issue together

A whole class discusses an issue

Students do their work alone

Pairs of students give each other feedback

A student uses the internet to interview a student in another town.



# Big ideas: Shared responsibility

IS THIS SHARED RESPONSIBILITY?	
YES:	NO:
.	
	.

**One student gives another student feedback on his or her work**

**A student interviews a peer in another country about the local weather.**

**A student works with a peer in another country to develop a joint website**

**Students conduct a lab experiment together**



# Big ideas: Substantive decisions

## IS THIS A SUBSTANTIVE DECISION?

YES:	NO:
<p><b>Pairs of students are developing a presentation about climate change and must decide what causes to write about.</b> Students must decide together what the most important causes are; this decision will shape their presentation.</p>	<p><b>Pairs of students choose which animal they will study.</b> Students will probably make this decision based only on personal preference, not on their knowledge of the subject.</p>
<p><b>Pairs of students decide how to shape their presentation to a particular audience.</b> This is a fundamental design decision that will affect the nature of their overall product.</p>	<p><b>Pairs of students select a colour scheme for their presentation.</b> Decisions about surface features are not considered substantive decisions that fundamentally affect product design.</p>

**Student teams carry out a series of steps defined by the teacher.**

**Students work together to identify capital cities of particular countries in Europe.**

**Students in teams are preparing for a debate and must decide what side of the issue they will argue for.**

**Student teams are conducting a research project & create their own work plan.**

# Collaboration

