21st CENTURY LEARNING DESIGN
Learning that matters

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75 million youth are unemployed

Almost 40 percent of employers say a lack of skills is the main reason for entry-level vacancies

between 40% and 60% of high school students are “chronically disengaged”

Klem & Connell, 2004
### Economic Change and The Learning Challenge

<table>
<thead>
<tr>
<th>Economic Drivers</th>
<th>20th Century</th>
<th>21st Century</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Manufacturing for mass market</td>
<td>Designing knowledge-based products</td>
</tr>
<tr>
<td>Teacher</td>
<td>Delivery of content and information; development of basic skills</td>
<td>Guiding students’ creation of knowledge-based products; development of higher order skills</td>
</tr>
</tbody>
</table>
Youth prepared to thrive in knowledge-based world enabled by technology
DEEP LEARNING
FOR KNOWLEDGE CREATION

- Knowledge construction
- Self-regulation & assessment
- Problem solving & innovation
- Collaboration
- Global awareness
- Skilled communication
- ICT use
Key Questions

Youth prepared for knowledge-based world

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WHAT ARE INNOVATIVE TEACHING PRACTICES?

**Student Centered Pedagogies**
- Knowledge construction
- Personalized
- Collaborative
- 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)
8 COUNTRIES PARTICIPATED IN ITL

GLOBAL ADVISORY GROUP

- National Board of Education, Finland
- Russian Academy of Education & The Academy for Teachers Training, Russia
- The Schools Network, England
- National Ministry of Education, Senegal
- National Ministry of Education, Brunei
- Ministry of National Education, Indonesia
- New South Wales Department of Education & Training, Australia
- National Ministry of Education, MEXICO

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## ITL RESEARCH
### MIXED METHODS USED

<table>
<thead>
<tr>
<th>Methods</th>
<th>Total Count</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Across</strong></td>
<td></td>
</tr>
<tr>
<td>Teacher &amp; School Leader Interviews</td>
<td>86 teachers</td>
</tr>
<tr>
<td>School Leaders</td>
<td>18 school leaders</td>
</tr>
<tr>
<td>Teacher &amp; School Leader Surveys</td>
<td>4,038 teachers</td>
</tr>
<tr>
<td>School Leaders</td>
<td>159 school leaders</td>
</tr>
<tr>
<td>Classroom Observations</td>
<td>81 classrooms</td>
</tr>
<tr>
<td>Learning Activity Analysis</td>
<td>967 learning activities</td>
</tr>
<tr>
<td>Student Work Analysis</td>
<td>3,367 student work</td>
</tr>
<tr>
<td>Student Focus Groups</td>
<td>33 focus groups</td>
</tr>
</tbody>
</table>

**Methods developed by SRI International**
How Teaching Shapes 21C Learning

- Education System Change
- School Leadership and Culture
- Innovative Teaching Practices

Individuals with skills for life and work today
INNOVATIVE TEACHING SUPPORTS DEEP LEARNING OUTCOMES...

Source: ITL 2011, LASW method, based on analysis by SRI International
ITL Rubrics for Learning Activities

- Knowledge building: 2.0
- ICT: 2.0
- Collaboration: 1.9
- Self regulation: 1.8
- Problem solving: 1.6

Source: ITL 2011, LASW method, based on analysis by SRI International
### HOW STUDENTS USE TECH...

#### Basic uses of ICT
- Find information on the Internet: 36%
- Practice routine skills and...: 26%
- Take tests or turn in homework: 17%
- Write or edit stories, reports, or...: 15%
- Access class resources or online...: 12%
- Analyze data or information: 15%
- Collaborate with peers on learning...: 9%
- Create multimedia presentations: 6%
- Use simulations or animations: 5%
- Work with others from outside class: 5%
- Develop simulations or animations: 3%

#### High level uses of ICT

**CONSUME**

**CREATE**

Source: ITL teacher survey, 2011

Based on analysis by SRI International
Student Centered Pedagogies

Extending Learning

Innovative Teaching Practices

ICT Integration

Missing pedagogical elements of innovation

Fragmented practices
TEACHER COLLABORATION AND INNOVATIVE TEACHING PRACTICES

Collaboration about Teaching

- Low frequency: -0.21
- Medium frequency: 0.00
- High frequency: 0.17

Source: teacher survey
Based on analysis by SRI International
PROFESSIONAL DEVELOPMENT AND INNOVATIVE TEACHING PRACTICES

- Practice a new teaching method: 0.28
- Conducted individual or collaborative research on a particular topic: 0.25
- Planned or practiced using ICT in teaching: 0.23
- Reviewed and discussed student work: 0.23
- Observed a demonstration of ICT use: 0.18
- Developed or reviewed curriculum materials: 0.18
- Received or delivered one-on-one coaching or mentoring: 0.17
- Planned a lesson or a unit: 0.15
- Observed a demonstration of a lesson: 0.15
- Listened to a lecture: 0.03

Source: ITL teacher survey, 2011

Based on analysis by SRI International
“My success is judged by examiners, by Ofsted, by parental choice... and what parents want, what children want is not necessarily what I would judge as innovation.”

School leader, England

“Innovative practices remain individual initiatives of motivated teachers. Being an innovative teacher has no direct and explicit impact on one’s career.”

Senegal ITL Report
Connect Systems: Assessments and appraisals aligned with innovative teaching and learning goals

Cultivate innovation: Leaders who develop integrated and shared visions of innovation

Nurture adoption: Professional development that provides teachers collaborative opportunities to design and research innovative teaching

Enrich learning: Ubiquitous student ICT access
What is 21\textsuperscript{st} Century Learning Design?
Youth prepared to thrive in a knowledge-based world enabled by technology.
21st Century Learning Design

Teachers as collaborative designers of new learning experiences

Students as collaborative creators of knowledge-based products
21st Century Learning Design

bridge between theory and practice of 21st century skills

rubrics as framework for learning design

rubrics as lens for the collective analysis of student work
FOCUS ON LEARNING ACTIVITY DESIGN

Source: ITL 2011, LASW method, based on analysis by SRI International

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Source: ITL teacher survey, 2011, based on analysis by SRI International
ITL Rubrics: Framework for Learning Design

<table>
<thead>
<tr>
<th>Rubrics</th>
<th>1. Students are required to work in pairs or groups?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td></td>
<td><strong>NO</strong></td>
</tr>
<tr>
<td>Real-world problem-solving</td>
<td>2. Students have shared responsibility?</td>
</tr>
<tr>
<td>and innovation</td>
<td><strong>NO</strong></td>
</tr>
<tr>
<td></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td>Use of ICT for learning</td>
<td>3. Students make substantive decisions together?</td>
</tr>
<tr>
<td></td>
<td><strong>NO</strong></td>
</tr>
<tr>
<td></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td>Collaboration</td>
<td>4. Students’ work is interdependent?</td>
</tr>
<tr>
<td></td>
<td><strong>NO</strong></td>
</tr>
<tr>
<td></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td>Knowledge Construction</td>
<td>5. Students are required to work in pairs or groups?</td>
</tr>
<tr>
<td></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td></td>
<td><strong>NO</strong></td>
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</table>
Teachers Collaborating in 16 countries

Senegal

England

Mexico

Brunei
TEACHING CAN CHANGE, DRAMATICALLY

Case study from one school in Russia
Teacher-produced content

Learning project designed

Resources identified

Project published

Assessment defined

Student work supported
What students say

Student from South Africa in a school doing 21C Learning Design

“I feel as though we’ve come from a long culture of spoon-feeding at this school. But I have noticed during the past year that teaching practices are starting to change. A few teachers still spoon-feed, but the others are really making us think and are challenging us with different types of projects than in the past... I really don’t want spoon-feeding, because it will come back to haunt me at University, as it did with my sister. I want to learn about research, debating, team work and all the skills I’ll need in a job one day.”
What does this mean for you?

- Shifting from content producers to content creation enablers
- Developing new content distribution ecosystems
- Enabling more local, more relevant, more personal learning content
- Re-engaging youth in learning that matters
www.itlresearch.com