21st Century Learning

The New Balance

Bernie Trilling – Global Director, Oracle Education Foundation
What We’ll Explore

What must all students learn to be successful in the 21st Century?

How should they learn this - what does 21st Century Learning look like?

Which practices and models will help us move toward a new balance?
Out with the Rear-view Mirror!
Look Straight into
the Future!
Four Question Exercise

1. What will the world be like 20 years from now?

2. What skills will your child need to be successful in that world?

3. What were the conditions around your peak learning experiences?

4. What would learning look like if it was designed around your answers?
20th Century Tools
21st Century Tools
21st Century Learners

Digital Learners

- Multitasking
- Multimedia learning
- Online social networking
- Online info searching
- Games, simulations & creative expressions
21st Century World

The World is Flat!

and Knowledge Work can be done by skilled, connected workers anywhere!
21st Century Work
The Future World of Work

IN MORE DEVELOPED COUNTRIES

Creative Work
- Research
- Development
- Design
- Marketing and Sales
- Global Supply Chain Management

IN LESS DEVELOPED COUNTRIES

Routine Work
DONE BY PEOPLE

Routine Work
DONE BY MACHINES
21st Century World

The World is Flat!

and all knowledge workers everywhere need 21st Century skills to compete!
Partnership for 21st Century Skills
21st Century Skills Needed!
What Must be Learned?

Learning & Innovation Skills
- Creativity & Innovation
- Critical Thinking & Problem-solving
- Communication & Collaboration

Information, Media & Technology Skills
- Information Literacy
- Media Literacy
- ICT Literacy

Life & Career Skills
- Flexibility & Adaptability
- Initiative & Self-direction
- Social & Cross-cultural Skills
- Productivity & Accountability
- Leadership & Responsibility

www.21stcenturyskills.org
www.21stcenturyskills.org/route21
## What Must be Learned?

### 21st Century Skills

<table>
<thead>
<tr>
<th>Seven Cs</th>
<th>Component Skills</th>
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<td><strong>Critical Thinking &amp; Problem-solving</strong></td>
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The 21st Century Learning Formula

3Rs X 7Cs = 21st Century Learning
The Key 21st Century Skill?

“Learning is what most adults will do in the 21st Century”

S.J. Perleman
20th Century Learning

Teacher-directed
Direct Instruction
Knowledge
Content
Basic Skills
Theory
Curriculum
Individual
Classroom
Summative Assessed
Learning for School
21st Century Learning

Teacher-directed Direct Instruction Knowledge Content Basic Skills Theory Curriculum Individual Classroom Summative Assessments Learning for School

Learner-centered Collaborative Construction Skills Process Higher-order Thinking Practice Life Skills Teamwork Community Formative Evaluations Learning for Life

A Better Balance
20\textsuperscript{th} Century Learning

Direct Instruction
21st Century Learning

Direct Instruction  Project Learning

A Better Balance
How should students learn? What does 21st Century Learning look like?
We inspire students to think, connect, create, and share; using technology to help fulfill individual potential, dissolve boundaries, and create a better society.
Two great examples of programs that aim to promote and support Project Learning 10,000 participants in 2,000 teams from over 70 countries in the annual ThinkQuest competition

Over 7,500 student-created websites in the ThinkQuest Library

ThinkQuest

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Which practices and models will help us move toward a new balance?
20th Century Learning

Direct Instruction
21st Century Learning

Direct Instruction

Project Learning

A Better Balance
21st Century Learning
The Project Learning Cycle
21st Century Learning
The Project Learning Cycle

Define

Goal-Setting
Problem, Question, Issue, Challenge
21st Century Learning
The Project Learning Cycle
Define
Goal-Setting
Problem, Question, Issue, Challenge
Teaming &
Knowledge Sharing
21st Century Learning
The Project Learning Cycle
Define
Goal-Setting
Problem, Question, Issue, Challenge
Teaming & Knowledge Sharing
Plan
Project Planning
Scope, Timelines, Resources, Communications, Quality, Risks
21st Century Learning

The Project Learning Cycle

Define

Goal-Setting
Problem, Question, Issue, Challenge

Teaming & Knowledge Sharing

Plan
Project Planning
Scope, Timelines, Resources, Communications, Quality, Risks

Do
Researching & Documenting
21st Century Learning

The Project Learning Cycle

**Define**
- Goal-Setting
  - Problem, Question, Issue, Challenge

**Plan**
- Project Planning
  - Scope, Timelines, Resources, Communications, Quality, Risks

**Do**
- Researching & Documenting

**Communicating & Sharing**

**Teaming & Knowledge Sharing**
21st Century Learning
The Project Learning Cycle

Define
- Goal-Setting
  Problem, Question, Issue, Challenge

Plan
- Project Planning
  Scope, Timelines, Resources, Communications, Quality, Risks

Do
- Researching & Documenting

Presenting
- Communicating & Sharing

Teaming & Knowledge Sharing
21st Century Learning

The Project Learning Cycle

Define

- Goal-Setting
  - Problem, Question, Issue, Challenge

Plan

- Project Planning
  - Scope, Timelines, Resources, Communications, Quality, Risks

Do

- Researching & Documenting

Review

- Presenting
- Communicating & Sharing
- Teaming & Knowledge Sharing

Evaluate
21st Century Learning
The Project Learning Cycle
Define
Goal-Setting
Problem, Question, Issue, Challenge
Review
Evaluating
Plan
Project Planning
Scope, Timelines, Resources, Communications, Quality, Risks
Do
Researching & Documenting
Communicating & Sharing
Presenting
Reflecting
Teaming & Knowledge Sharing
21st Century Project Learning
21st Century Project Learning

STUDENT WHEEL

TEACHER WHEEL
21st Century Project Learning
21st Century Project Learning
21st Century Project Learning
21st Century Project Learning

- Student Seats
- Learning Gear & Tools
- Problem
- Review
- Plan
- Define
- Do
- Teacher Seat
- Driving
- Co-Managing

Student Wheel

Teacher Wheel
21st Century Project Learning

Diagram showing the interconnected elements of project learning:
- Question
- Evaluation/Assessment
- Co-Managing
- Define
- Plan
- Do
- Review

Connected to:
- Student Seats
- Teacher Seat
- Learning Gear & Tools
- Problem
- Driving

Student Wheel
Teacher Wheel
21st Century Project Learning
21st Century Project Learning
21st Century Project Learning

TAIL WIND: SUPPORT FROM SCHOOL & COMMUNITY

BALANCE POINT LEFT: GUIDED INSTRUCTION

DEGREE OF CHALLENGE

BALANCE POINT RIGHT: COLLABORATIVE CONSTRUCTION
21st Century Project Learning

TAIL WIND:
SUPPORT FROM SCHOOL & COMMUNITY

HEAD WIND:
LACK OF SUPPORT FROM SCHOOL & COMMUNITY

BALANCE POINT LEFT:
GUIDED INSTRUCTION

BALANCE POINT RIGHT:
COLLABORATIVE CONSTRUCTION

DEGREE OF CHALLENGE

DESTINATION

21st CENTURY SKILLS
21st Century Learning

New Learning about Learning

- **Context** – Real-world learning
- **Caring** – Intrinsic motivation
- **Construction** – Mental & virtual model-building
- **Competence** – Multiple intelligences
- **Community** – Learning socially in groups & teams
21st Century Learning
Questions & Problems

Adapted from Roger Bybee and Senta Raizen
### 21st Century Learning
Creativity & Innovation

**Creative – Project Process**

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<th>Imagine</th>
<th>Define/Plan</th>
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<tr>
<td>Create</td>
<td></td>
</tr>
<tr>
<td>Play</td>
<td>Do</td>
</tr>
<tr>
<td>Share</td>
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<td>Reflect</td>
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![Image of people creating art](image-url)
“The principle goal of education in the schools should be creating men and women who are capable of doing new things, not simply repeating what other generations have done.”

Jean Piaget
The Project Learning Challenge

“I had to unlearn the idea that teaching was about *my* content; I had to learn it was about *their* thinking, and *their* skills.”

A Project Learning Teacher
Project Learning Institute

- For **Primary & Secondary Teachers** and **Trainers** wanting to integrate:
  - Learning Technology
  - Learning Projects
  - 21st Century Skills

- First international Institutes piloted in US, Singapore, South Africa, Brazil

<table>
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<tr>
<th>Training</th>
<th>Time Commitment</th>
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<tr>
<td>Virtual Training</td>
<td>24 hours over 4 weeks</td>
</tr>
<tr>
<td>In-Class Training</td>
<td>28 hours over 4 days</td>
</tr>
<tr>
<td>Implementation &amp; Mentoring</td>
<td>8 hours over 3 months</td>
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The New Balance

- Guided Instruction and Collaborative Construction
- Connected Content and Lifelong Skills
- Virtual ‘Second Life’ Screen World and Real-world ‘First Life’ Green World
- From the Head and from the Heart & Soul
The Past ICT Challenge

**Information**

**Communication**

**Technologies**
Today’s ICT Challenge

Innovation

Collaboration

Transformation
But will it make us happy?

Chinese Proverb

If you want happiness for an hour – take a nap.
If you want happiness for a day – go fishing.
If you want happiness for a month – get married.
If you want happiness for a year – inherit a fortune.

But if you want happiness for a lifetime – help someone else.
Oracle Education Foundation

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