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"Digital Media, Content and Tools for the Next Generation of Learning"

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Intel's Model for Education Transformation

Strong curriculum standards, robust assessment approaches and new digital media tools and resources provide students with critical 21st century skills.

Curriculum Standards and Assessment
10 Attributes of a 21st Century Learning Environment

1. **Student centered systems**

2. **Clear standards and objectives**

3. **Robust formative and summative assessment systems**

4. **Continuous feedback improving students' learning**

5. **Support for 21st century skills**

6. **Inquiry-based learning approaches**

7. **Personalized learning**

8. **Digital media curriculum resources**

9. **Advanced open-ended learning tools**

10. **Online Managed Learning and Assessment Systems**

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Digital Media/Content and Tools

Must address:

- **Consumption** - read and interpret text and imagery

- **Collaboration** - share what they've learned and work with others to extend their knowledge

- **Creation** - demonstrate mastery of content through appropriate responses that use higher order thinking skills

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Learning & Teaching Activity Model

3. Create Knowledge

Group Projects
Communication
Blogs & Discussions

Collaboration

- **Inquiry-based learning**
- **Projects**
- **Problem solving**
- **Experiments**
- **Toolkits**
- **Concept Synthesis**

Activities

Student Centred

Reference

- **World-wide web**
- **Google**
- **Wikis**

2. Deepen Knowledge

Content

1. Acquire Knowledge

First foundation step: Multimedia content to develop key concept knowledge

sk♦♦♦l.com

Student Centred with Teacher as Guide and Facilitator
Virtual Learning Environment helps to integrate and manage the activities

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But where will Digital Content come from? Education Content Eco-System Development

Content Eco-system Pyramid

Content and Communities

1. Large National & Multi National Publishers

High Quality **National Curriculum Aligned** 'curriculum body approved official' content, tools, resources and reference materials

2. Boutique Publishers

Creative specialists filling the gap left by often slower moving MNC publishers

3. High Quality Free

Editorially controlled (or creative commons controlled) **high production value** free e.g. skoool.com, Wikisaber, Wikipedia, curriki

4. User Generated Content

Bottoms up community generated content from creative teachers and other users – e.g. best practice, project based learning, lesson plans, shared in wikis, blogs, discussions

Pyramid is very broad at the base and narrower and generally of higher quality closer to the top

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Path to Higher Value Solutions

*Raising Standards &
21st Century Skills Development*

Solution Value-Add

Effective Management Systems
Learning Mgmt, Enterprise Sys, Quality, Privacy, Security
Personalization, ePortfolio

Effective Assessment & Accreditation Systems
Formative, Summative, Authentic

Richer Learning Tools & Resources
Creative open ended tools and resources to support
Inquiry-based, Project & Activity-based Learning

Rich Content: Core & Supplementary
Aligned to Standards e.g. Multi-media, eBooks, Flash, Web

Open Learning Content & Communities

Technology Value-Add

Student devices capable of supporting the entire process

Integrated with Server-based Systems

Large Screen Experience

Input/ Output Capability

*Invest in infrastructure and capability towards this vision
10 year strategic view*

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Summary of Key Points

Education Transformation must be Systemic

Strong Standards & Robust Assessments

Environment must be Student-Centered & support C21st Skills

Resources not digitized version of Traditional: 3Cs - Consumption, Collaboration & Creation

Technology Revolutionizes Teaching & Learning

Education Content from a variety of Sources

Technology that will scale and inter-operate into the future is required.

Policy

Research & Evaluation

Education Transformation

Curriculum & Assessment

Information Communications Technology

Professional Development

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Solution Examples:
A World City Network
'Support, Extend, Innovate'

LONDON GRID FOR LEARNING

Broad Adoption:
33 local authorities
2,700 schools
74,000 teachers
1.2m pupils

Fast Connection:
100mbps to secondary
10mbps to primary
600 point
Video Conference

E-safe System:
URL and email filtering
Automatic & human review

LONDON GRID FOR LEARNING

Curriculum Consultants
'Hands on' support for schools

Learning Platforms:
VLE/MLE for managing and sharing work and courses & for community creation

100mb/200mb learning space for every user

Premium Content
on central servers
Publisher Generated
Teacher Generated

Secure access by IP address inside school and single login outside

Represents 35 years of investment and progress in London
www.lgfl.net

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skoool™ in the London Grid for Learning

- 85% of students strongly agreed or agreed that skoool had a positive effect on their learning

- 70% of teachers had used skoool.co.uk in the classroom

- 52% of teachers constantly or regularly use skoool resources on the Interactive Whiteboard

- 72% of students used skoool outside of school

- **Improving the software market**

1. Getting skoool for free has made other software manufacturers improve the quality and pricing of their products

2. Improves teacher software evaluation skills. Skoool raises teacher awareness of what good software should do

LGfL Evaluation
LONDON
GRID FOR LEARNING
Findings Report

London Grid for Learning Evaluation March 2005

Report Sponsored by UK DfES
First 6 months of skoool in London Grid for Learning

skoool has had a positive impact on your learning?

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

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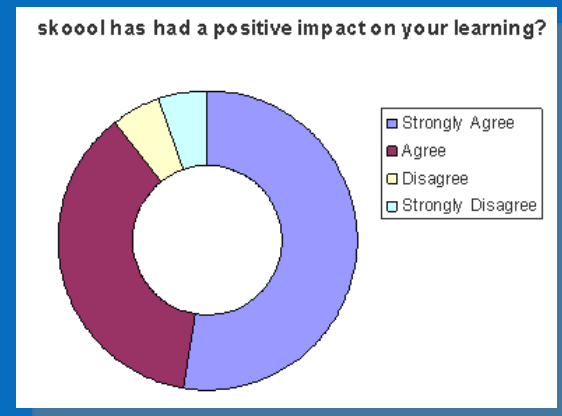
INTALEQ Project Overview - Yemen

- Innovations in Technology Assisted Learning for Educational Quality (INTALEQ)
  - A Global Development Alliance
  - Helping Yemeni students "step up" to the future by giving them a chance to master 21st Century Skills.

- USAID, EDC and Intel are collaborating with local organizations to enhance Science and Mathematics education for secondary school students.

- Integrating technology into Yemeni education while keeping the focus on teaching and learning.

- Initial pilot targetted mostly female schools in Yemeni capital, Sana'a.

Sample sizes in Intervention and Control Schools by Subject Matter (N)

Intervention Schools

• *Al-Khansa'a'*	*98*	*100*	*96*	*104*
• Al-Quds	119	135	118	136
• Al-Sabeen	100	98	98	97
• Omer Bin Abdulaziz	241	223	241	217
• Fatima Al-Zahra'	96	97	95	94
• Sinan Hadroum	120	116	113	119
Subtotal (N)	*774*	*769*	*761*	*767*

Control Schools

• *Al-Kuwait*	*115*	*77*	*124*	*83*
• Al-Thowra	80	81	82	72
• Bilquis	102	102	114	117
Subtotal (N)	*297*	*260*	*320*	*272*
Total Sample Size (N)	**1071**	**1029**	**1081**	**1039**

Source: EDC Student Assessment Report (July 2009)

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Subject Matter Mean Gain Scores for Intervention and Control Schools
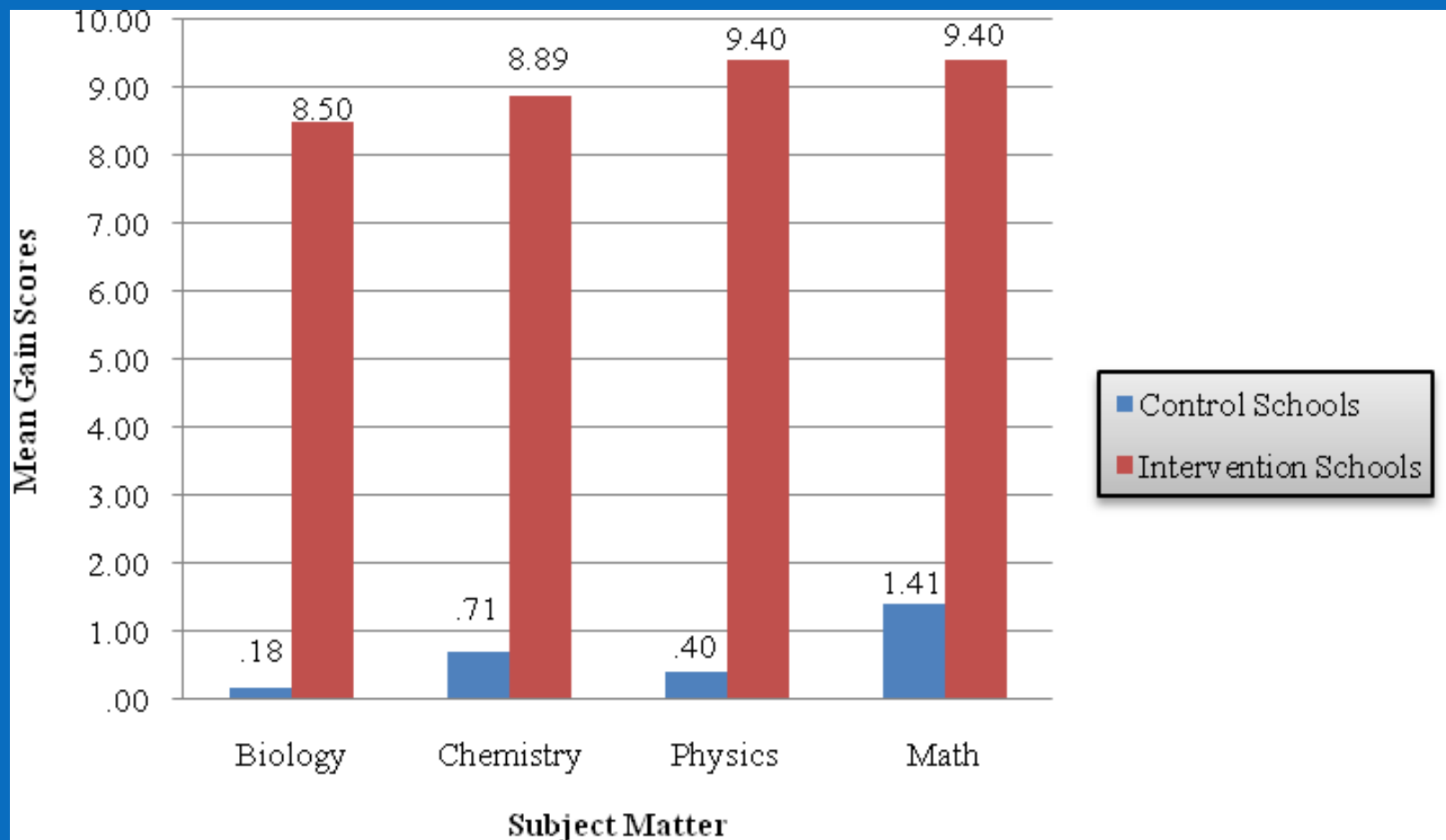
(July 2009)

Thank You for Participating!

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