

How do we know what we know?

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How do we know
what we know?

International Updates on the
Development of ICT in Education
Indicators

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World Bank

**ask questions and learn from the
experiences of the World Bank
and its development partners ...**

“Get smart”

“Get smarter”

@

appropriate

relevant

effective

and, just as importantly...

inappropriate

irrelevant

ineffective

uses of technologies

**to aid a variety of
developmental objectives**

especially in education!

ICTs in Education

ICTs

=

information

&

communication

technologies

**Handhelds
PDAs, GPS**

**Computers
Desktops, laptops**

**Media players
MP3, DVD, CD**

LCD projectors, televisions, printers

mobile phones

**accessories
probeware, peripherals**

**Cameras
still, video**

Networks

Internet, LANs, wi-fi

**broadcast
radio, TV**

= ICTs



photo opportunities



or

**strategic choices
for education reform**

?

**What do we know about using
technology
in education
in developing countries?**

What do we know about using

technology

effectively

in education

in developing countries?

effective

effective →

cost effective

Do they help

make schools more **productive and efficient** than they currently are?

transform teaching and learning into an engaging and active process connected to real life?

prepare the current generation of young people for the **future workplace**?

**how do
we know?**

?

? ? ? ? ? ? ?

? ? ? ? ? ? ?

? ? ? ? ? ? ?

? ? ? ? ? ? ?

academic research

academic research = policy relevant?

many policymakers tell us that ...

academic research \neq policy relevant

or a least

not policy relevant **enough**

for investments **at scale**

Reliable, statistically valid,
cross-national data sets

Policy-relevant methodologies,
frameworks and analytical tools

Busan, South Korea
July 2009

IDB

OECD

European Union - CRELL

World Bank

KERIS

UIS/UNESCO

IDB

OECD

European Union - CRELL

World Bank

KERIS

and others

UIS/UNESCO

1. share information about current and upcoming efforts sponsored by key organizations in this topic

2. provide critical feedback and advice to colleagues leading initiatives in this area

3. assess potential areas of cross-donor collaboration

4. identify gaps in existing or proposed initiatives

5. propose areas for collaboration and joint activity going forward

duplication

duplication

duplication

duplica

d

a brief tour

of what? and why?

<http://go.worldbank.org/DJTDITWI40>

**[http://crell.jrc.ec.europa.eu/
workshopictimpact.htm](http://crell.jrc.ec.europa.eu/workshopictimpact.htm)**

UIS

UNESCO
Institute for
Statistics

The official international lead agency for education indicators for EFA and MDGs

**Existing global data collection
In support of EFA**

Able to develop and apply global international statistical standards

eg ISCED, FCS, core ICT indicators all for endorsement by UNESCO General Conference and UN Statistics Commission after extensive international consultation

Strong network of national agencies officially responsible for managing education indicators

**WSIS 2003/5 set up Partnership for
Measurement of ICTs for Development**

**UNCTAD, ITU, UNESCO, World Bank,
OECD, EU, UNSD**

**Partnership assigned global leadership
for ICTs in Education to UIS**

9 core indicators

expanded core (50+)

**discussion and agreement next month in
Montevideo (25 countries)**

global + national-level indicators

**builds on work led by the UNESCO-Bangkok
office for many years in Asia-Pacific**

ICT in Education Toolkit
for Policymakers, Planners & Practitioners

UNESCO - *infoDev*

used in 28 countries to date,
200 requests for use since launch

www.ICTinEDtoolkit.org

avoid duplication of data collection efforts

How can and should we understand this data?

conceptual frameworks

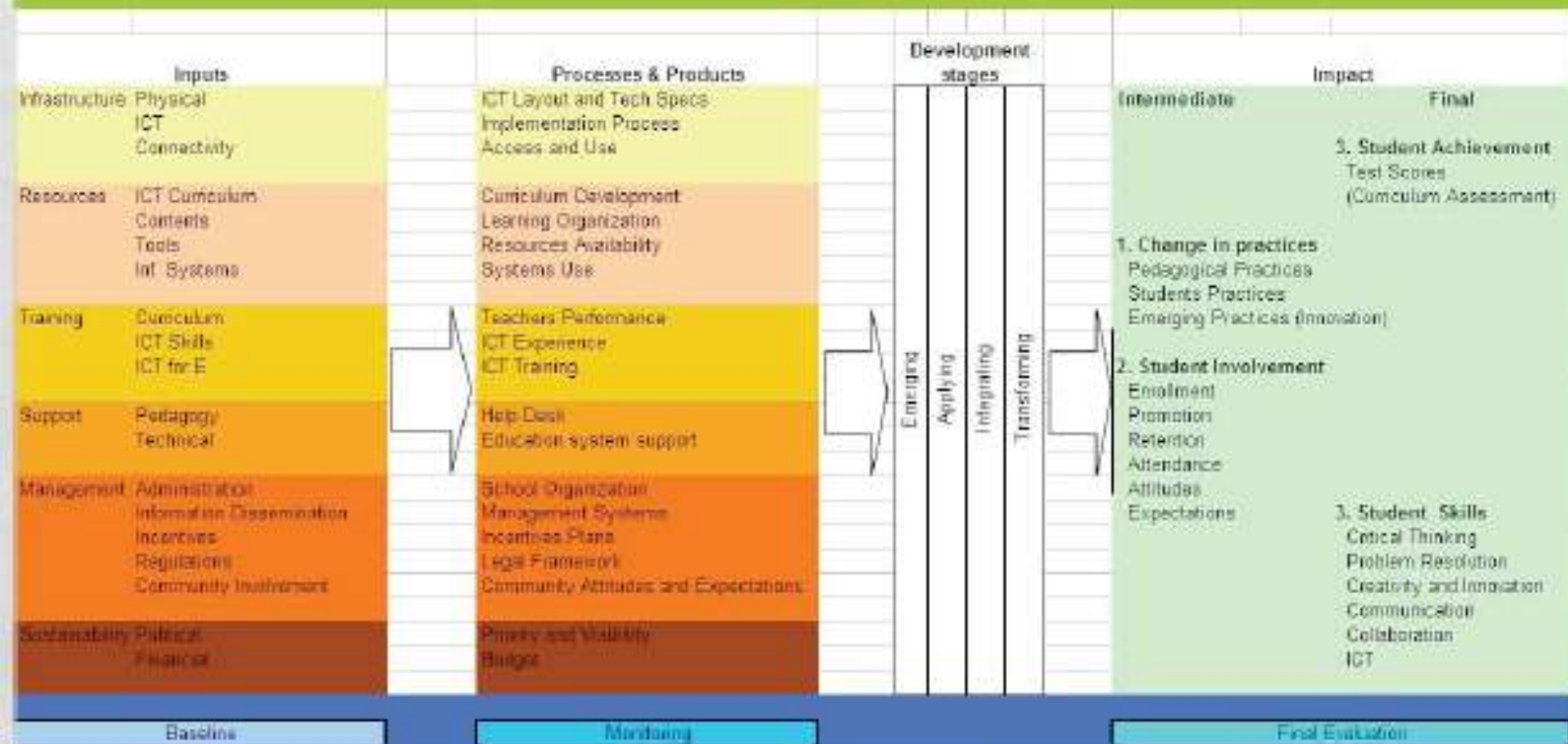
OECD, EU, *infoDev*, IDB

competition is good

competition is good
but confusing

IDB Conceptual Framework

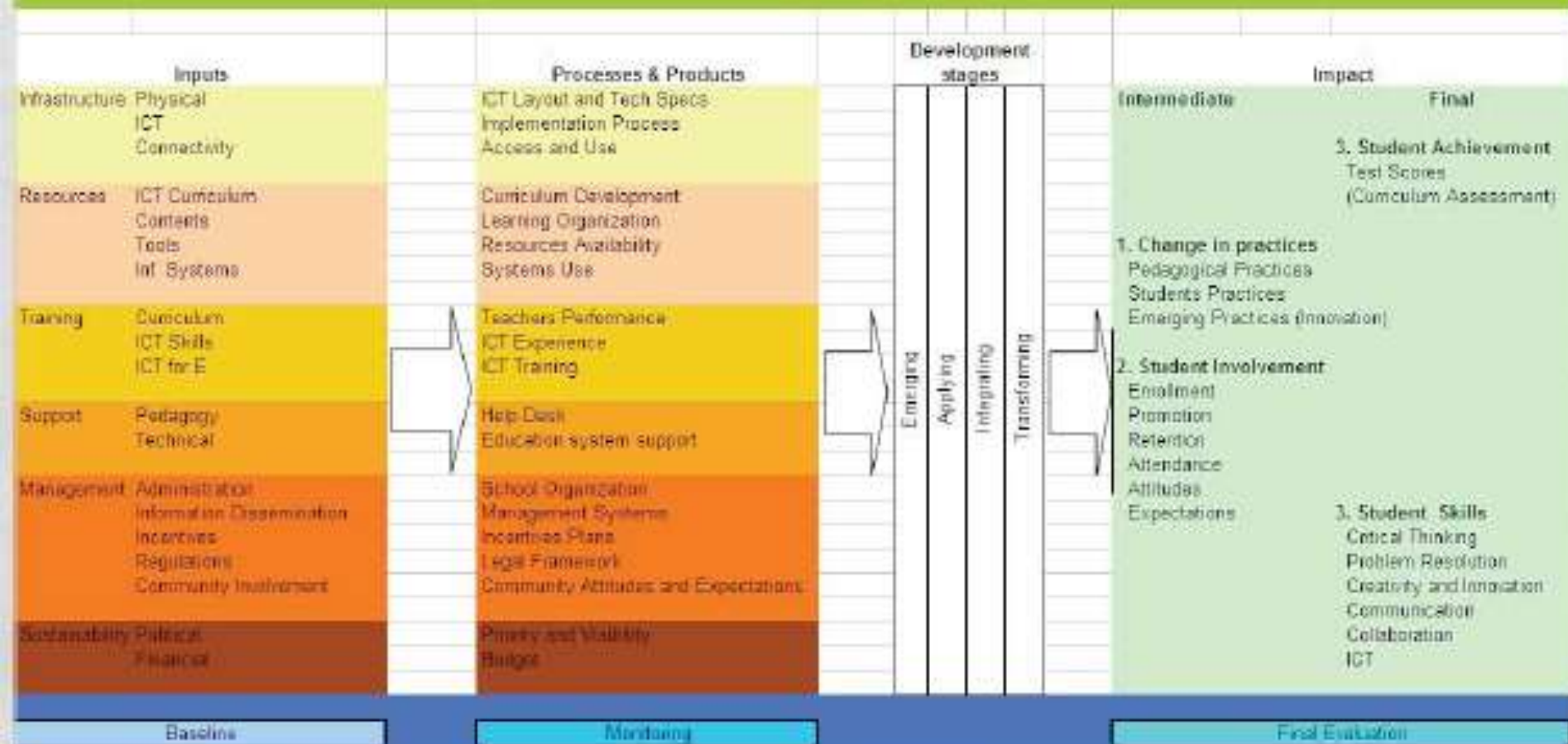
Final Goal: Student Learning



input process output impact

IDB Conceptual Framework

Final Goal: Student Learning



World Bank

infoDev

**Handbook for the Monitoring and
Evaluation of ICT use in Education in
Developing Countries**

**Regional surveys in
Africa & the Caribbean**

from periphery to the core

Benchmarking of education systems for results

**placing this ICT work in a broader
education context**

supporting analytical work

UNESCO *Meta-Survey of ICT and Education in Asia-Pacific*

infoDev Survey of ICT and Education in Africa
Survey of ICT and Education in the Caribbean
Survey of ICT and Education in South Asia

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Survey of ICT and Education in South Asia

Pan-African Research Observatory on ICT & Education

on-going KERIS work in Asia

moving beyond

KERIS

**Korean
Education
Research &
Information
Service**

Expanded set of indicators

especially relevant the national level

***Thailand, Philippines, Vietnam, Sri Lanka,
Mongolia***

[no rankings]

But where should we be aiming?

Assessment & Teaching of 21st Century Skills

www.atc21s.org

**Cisco - Intel - Microsoft
University of Melbourne**

Working Group on 21st Century Skills

Working Group on Methodological Issues

Working Group on Technological Issues

**Working Group on Classroom Learning Environments
and Formative Evaluation**

**Working Group on Policy Frameworks for New
Assessments**

The ultimate goal of the project is to move from small marginal pilot projects to implementing new forms of assessment within a coherent teaching and learning system. The group will focus on the systemic reform needed to achieve this shift.

solution

solution →

solution → problem

problem → solution

goal → tool(s)

Certain realities

These sorts of investments are not made solely on our current evidence base; treating them as such misses the mark.

Decisions to buy PCs are fueled as much by aspiration as by evidence -- and economics.

In many cases, prices have fallen to a point where countries are saying “we can finally do this”.

Technology and infrastructure issues drive the process, at least at the start.

ICT
as
an
icon

of
innovation

ICT

as

an

engine

of

innovation

ICT
as
an
icon
and
engine
of
innovation

ICT
as
an
icon
and
engine
of
innovation

“I believe that the **Internet is destined to revolutionize our educational system and that in a few years it will supplant largely, if not entirely, the use of textbooks. It is possible to touch every branch of human knowledge through the **Internet.**”**

“I believe that the **motion picture is destined to revolutionize our educational system and that in a few years it will supplant largely, if not entirely, the use of textbooks. It is possible to touch every branch of human knowledge through the **motion picture**.”**

-- Thomas Edison 1922

what has changed?

PRICES

PRICES

PRICES

PRICES

(magic price: \$100)

competition

competition

competition

**global
competition**

innovations







innovations in marketing

(corporate) mindsets

**a state of
constant change**

**“Technology
is revolutionizing education
everywhere
but in the classroom”**

some **key** findings

a. impact

**impact of ICT use on learning outcomes
and future employment is unclear,
and open to much debate**

**absence of widely accepted standard methodologies
and indicators to assess impact**

**disconnect between the rationales most often put
forward to advance the use of ICTs in education and
their actual implementation**

**very little useful data on the cost of ICT in
education initiatives,
especially those attempting to assess
Total Cost of Ownership,
nor guidance on how to conduct cost
assessments.**

b. costs

and yet ...

ICTs are being increasingly
used in education,
even in the most
challenging environments

c. use

(for better and for worse)

What are we missing?

New Phases:

from Pilot Projects
to Policies
to Scale

NGOs and private sector
leading the way

Increasing demand from client
countries

Will (how can) ICTs help

make schools more **productive and efficient** than they currently are?

transform teaching and learning into an engaging and active process connected to real life?

prepare the current generation of young people for the **future workplace**?

**need for new
assessments**

**need for new
assessment frameworks**

**need for new
indicators**

more information:

www.infodev.org/education

www.worldbank.org/education/ict

blog: blogs.worldbank.org/edutech

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