

# CAPACITY BUILDING FOR ICT INTEGRATION

in Secondary Schools in Kenya: An Follow-up study



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@jotondeur

*Jo.Tondeur@vub.be*

## INTRODUCTION (CON'T)

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*“A few years ago, the emphasis in ICT in education in Kenya has been on the provision of computers to schools, ...*

*after which it was left for individual schools to figure out what to do with the computers”*

Kizito Makoba, ICT Integration Team member

# CONTEXT: ICT INTEGRATION PROGRAMME VVOB

## Our core competences



### Capacity building

- Strategic and operational partners
- Strengthening **effectiveness and efficiency** to achieve their goals
- **Aligned** with the policy plans and the needs of the direct and indirect target groups



### Technical assistance

- Mainly in **training, coaching, facilitating and planning**
- In the **education sector**
- **Medium and longer term** assistance
- Local and expatriate **experts**
- Supported by **partnerships** with local and Flemish institutions

### Bridging between macro, meso and micro level

- **Focus** on the meso level: sub-sector partnerships, such as with teacher trainer institutions, the provincial level, etc.
- From this position we are able to **reconcile the macro level policies**
- with the **needs and circumstances** at the micro level (implementation).

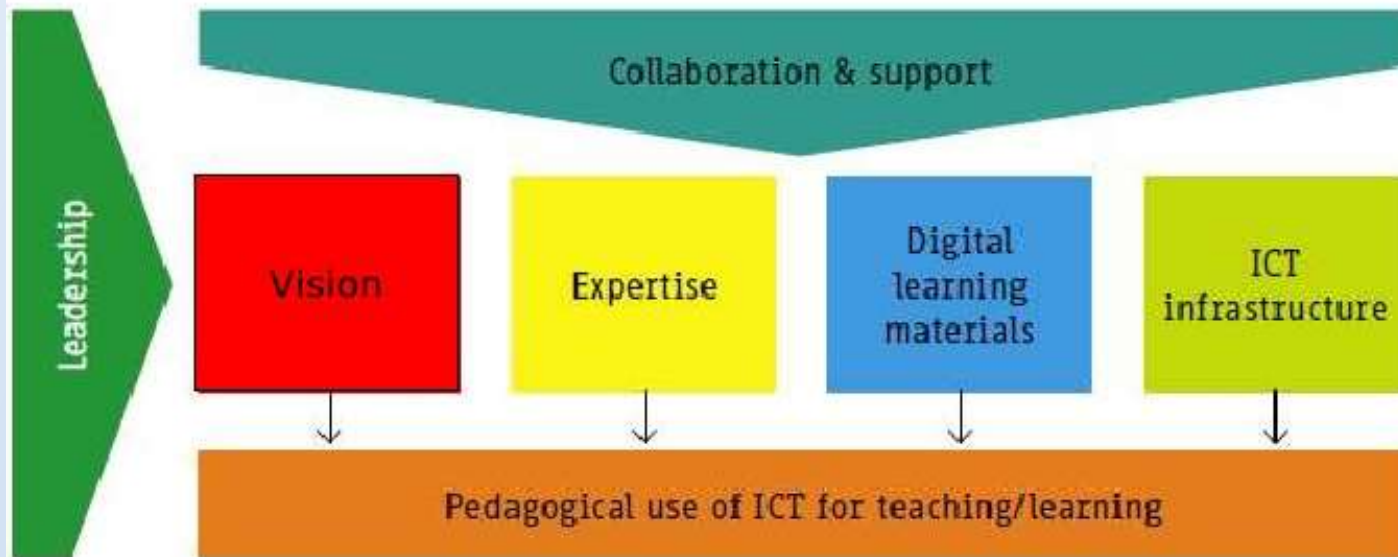


**[www.vvob.be](http://www.vvob.be)**

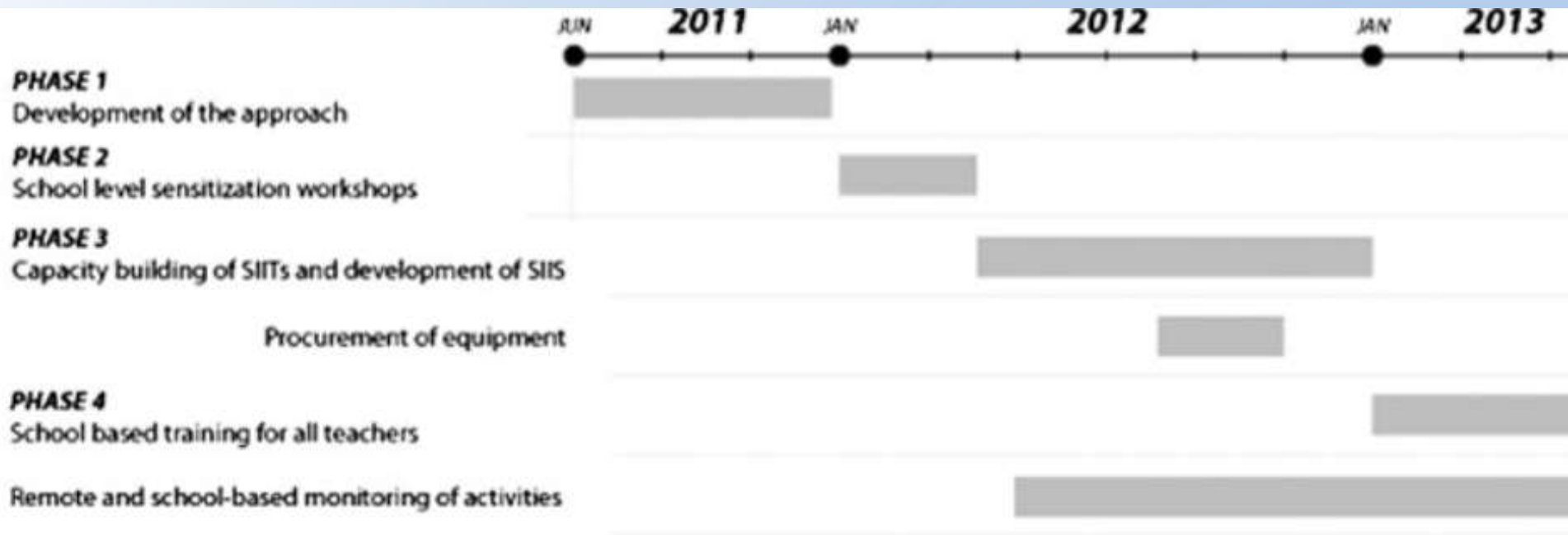
# THE HOLISTIC APPROACH

Kennisnet

## Four in Balance model



# THE INTERVENTION





# DESCRIPTION OF THE INTERVENTION



## Technology, Pedagogy and Education

 **Routledge**  
Taylor & Francis Group

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### **Integrating ICT in Kenyan secondary schools: an exploratory case study of a professional development programme**

**Jo Tondeur, Don Krug, Mike Bill, Maaïke Smulders & Chang Zhu**

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# Location of the 4 secondary schools



# School 1

460 Students

20 Teachers

Performs above average





# School 2



## Location

*Located in Kiserian on the shores of Lake Baringo. Home to the minority tribe called the Ilchamus (Njemps)*



422 Students  
15 Teachers

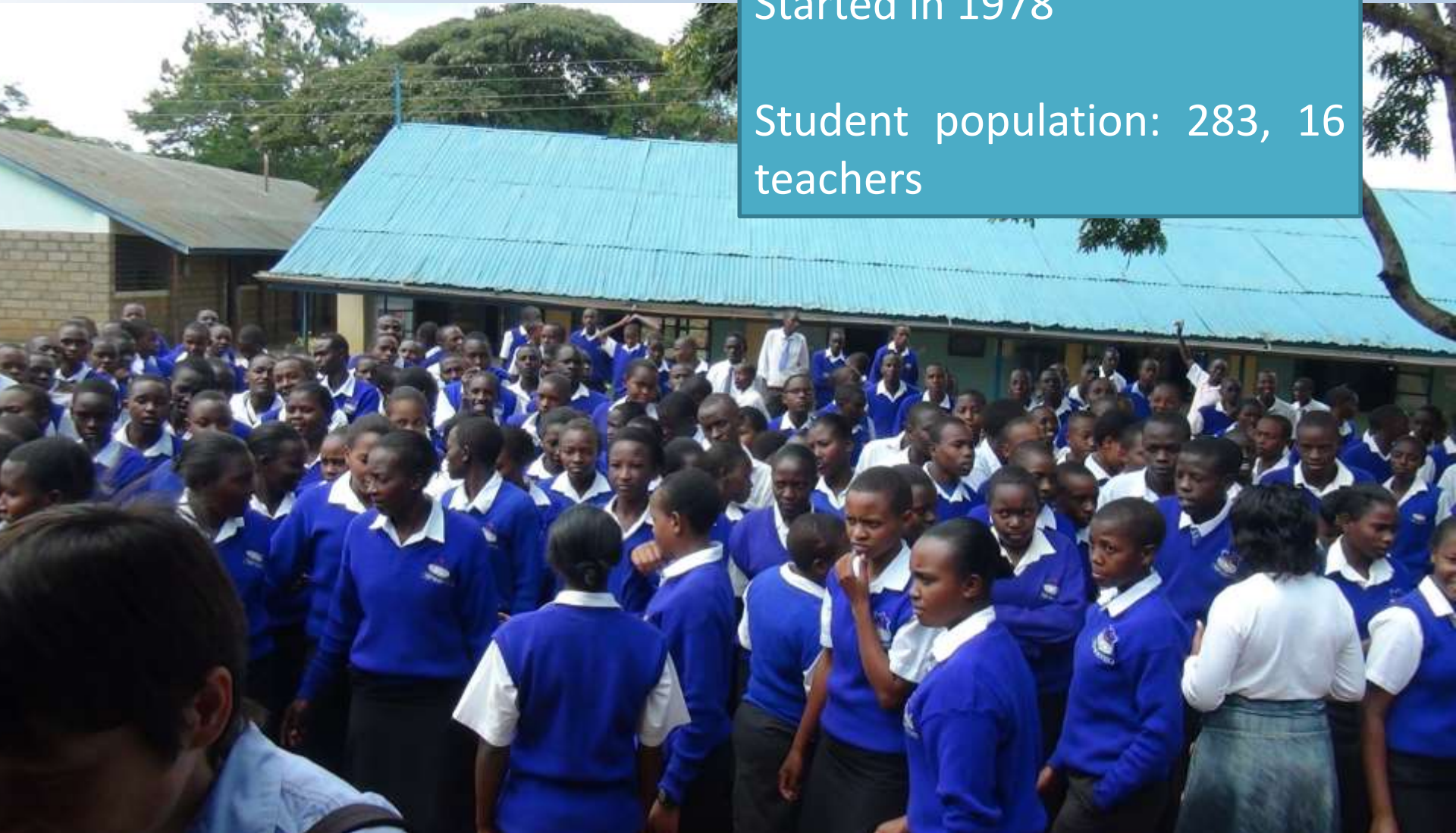




# School 3

Started in 1978

Student population: 283, 16 teachers



# School 4

Started in the year 2000

Built by the Munyu community to accommodate students that could not get to other secondary schools

Student population: 384 16 teachers





# AIMS OF THE STUDY

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How does the PD program support the participating schools' capacity building for ICT integration in the curricula?



Exploring critical domains in the process of capacity building for ICT-integration in four secondary schools in Kenya:

Leadership | Cooperation and support |

Access to resources | Development of a shared vision

# Longitudinal mixed method case study approach

2012	2012-2013 VVOB Pilot	2015
Study 1		Study 2*

## Method

- **Questionnaires\*** administered to all teachers
- **4 Focus groups\*** with teachers and leaders / school (pre & post)
- **Observation of ICT facilities\***;
- **Observation of teaching practice\***
- Review of school documents including school planning/policy documents

# Case Study results: ICT-infrastructure

School A	School B	School C	School
Computer lab (2CPUx10) + 8 desktops in each class	Computer lab with 16 desktops,	Computer lab 18pc's	Computer lab with 16 desktops
5 laptops	3 laptops, 1 tablet	3 laptops	4 laptops
3 projectors	2 projectors	2 projectors, speakers	2 projectors
1 camera, 2 camcorders	1 video camera, 2	2 digital camera's printer	1 video camera, 2 digital cameras 2

# CASE STUDY RESULTS: ACCESS TO RESOURCES

To illustrate:  
Computer lab S2



*Our decision to have a computer lab  
Setup was mainly motivated by **security***

(T, S3)



# CASE STUDY RESULTS: ACCESS TO RESOURCES

Not enough laptops to have equal access

Power breakdowns

Lack of technicians for maintenance of the equipment



*“Unreliable electricity is a big  
Obstacle to proper use of ICTs”*

(teacher, S1)

# CASE STUDY RESULTS: ACTUAL ICT-USE

## Use of ICT as an information tool:

Presenting information by teachers, students looking for information on the Internet, ...

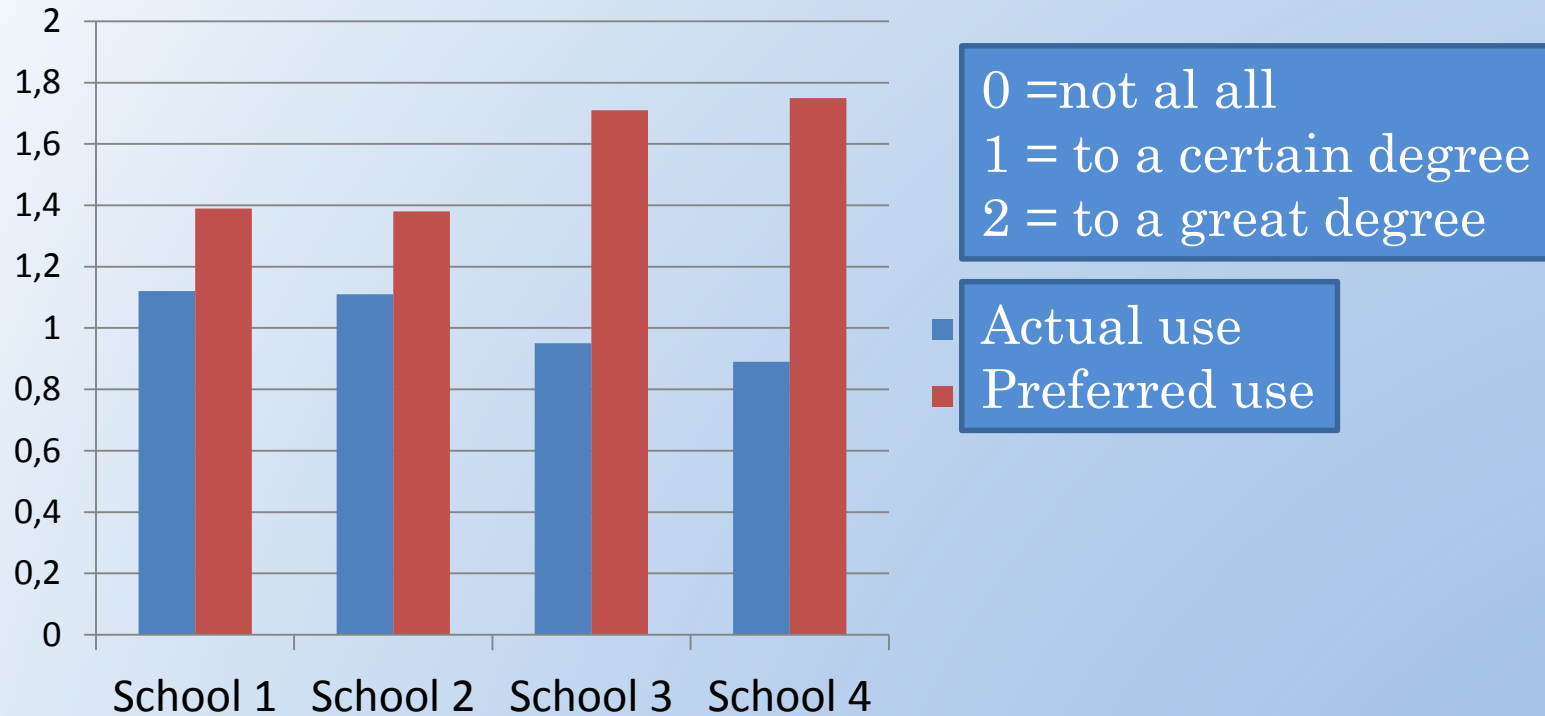


*“In our school it is also being used to show things that are not familiar to the students such as icebergs” (T, S3)*

## Use of ICT as a supportive tool:

Preparing lessons, make lessons current, production and analysis of exams, Timetabling; school management system-accounting, ...

# SURVEY RESULTS: USE OF ICT IN CLASS\*



- > gap between the actual and the preferred class use of ICT
- > Educational potential of ICT seems to be acknowledged by teachers

*\* I teach my pupils to...*

*work together in order to perform an assignment by means of represent info  
multimedially with ICT learn independently in an ICT supported environment, ..*

# CASESTUDY RESULTS: LEADERSHIP

*The principal also played a crucial role and she leads by example in that she integrates ICTs in her lessons*





# CASESTUDY RESULTS: LEADERSHIP & COLLABORATION

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- ICT integration team is leading the innovation process

*I have also observed better unity among my teachers. My teachers are consulting and collaborating a lot more because of the ICTs in school. This is very nice for me as a principal.*

- Support from the school leader is crucial

*The principal played a crucial role and she leads by example in that she integrates ICTs in her lessons*

# CASESTUDY RESULTS: ICT SCHOOL POLICY

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**Schools are developing policies....**

*“Our policy seeks to empower all the school stakeholders and give them responsibilities for ICT integration” (BOG, S2)*

**But ICT-policies are not (yet) integrated in a school plan**

*“The more we learn, the better we are becoming at generating a vision for ICT-integration” (T, S1)*

# DISCUSSION & IMPLICATIONS

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- Teachers are starting to use ICT to support their practice and to bring reality to the classroom
- > *How to stimulate students' use of ICT (given the number of students/lack of space)?*
- > *How to achieve 21<sup>st</sup> century skills through student centered learning?*

“ICTs tend to invoke creativity”

# DISCUSSION & IMPLICATIONS

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- Towards distributed leadership for capacity building
  - > *Limitations of a centralised system?*
- Development of policies for ICT Integration need experience of ICT Integration
  - > *Implications for PD?*
  - > Experience of possibilities with technology in schools (sandbox)

*We would also like to to train teachers in neighbouring schools so that we increase the pool of teachers around us who are integrating ICT. This will be beneficial to us as much as it will benefit our neighbours.*