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EMPOWERING TEACHERS TO USE ICTS IN SOUTH AFRICA

GLOBAL DIALOGUE ON ICT AND EDUCATION INNOVATION,
MOSCOW, RUSSIA, 18-19 APRIL 2018
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PRESENTATION OUTLINE

- Purpose
- Background
- ICT Professional Development
- Incentivising Teachers
- ICT Training Stats
- Professional Development Framework for Digital Learning
- ICT4Red
- Challenges and Remedial Measures

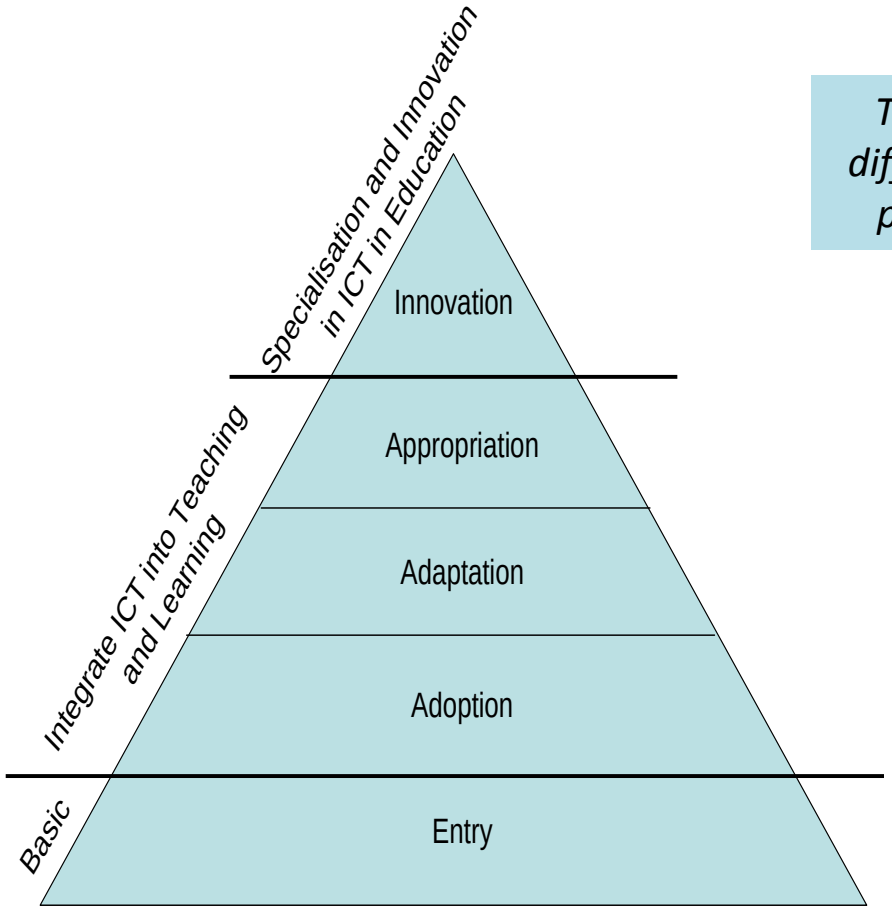
PURPOSE

To present to the Global Dialogue on ICT and Education Innovation the Operation Phakisa ICT in Basic Education initiative on Teacher ICT Capacitation.

BACKGROUND

- **Operation Phakisa ("hurry up")** ICT in Education is a project management protocol adopted from Malaysia, derived from their Big Fast Results (BFR) eight-step methodology.
- **A consultative laboratory process (Lab)** was held in October 2015 attended by 120 delegates.
- **Ten initiatives** were identified, one of which was a recognition of the need to capacitate teachers to use ICTs in education, particularly in integrating in classroom practice.
- **SACE** is the South African Council of Educators. SACE sets the standards for teacher training. Teacher training is carried out mostly by Universities and other Higher Education Institutions (**HEIs**).

ICT PROFESSIONAL DEVELOPMENT



The diagram indicates the different levels of ICT teacher professional development

ICT PROFESSIONAL DEVELOPMENT

Entry level

The teacher is computer literate and is able to use computers. However, frustrations and insecurities are common in the introduction of ICT. At this level, teachers are likely to lack confidence.

Adoption level

The teacher is able to use various ICTs, including computers, to support traditional management, administration, teaching and learning, and is able to teach learners how to use ICT.

Adaptation level

The teacher is able to use ICT to support everyday classroom activities at an appropriate NCS level, assess the learning that takes place and ensure progression. He/she is able to reflect critically on how ICT changes the teaching and learning processes and to use ICT systems for management and administration.

Appropriation level

The teacher has a holistic understanding of the ways in which ICT contributes to teaching and learning.

Innovation level

The teacher is able to *develop entirely new learning environments* that use ICT as a flexible tool, so that learning becomes *collaborative and interactive*

ICT PROFESSIONAL DEVELOPMENT

Sample ICT school based Teacher Training Plan		
Basic Use	Integration	Advanced
Basic MS Word/PPT	LMS Use / Monitoring	Development of digital solutions
e-Content for Interactive Projection	Classroom Management	• Active Learning
Open Edu Resource Access	Content creation	• Math Academy
Introduction to 21st century skills & Digital Citizenship	Assessment	• SPARKvue Science Probes
		• 3D Visualization
		• Curriculum Matrix (OER)
		• Virtual Lab
		• Digital content development

INCENTIVISING TEACHERS

- Through the **National Teaching Awards (NTA)**, **Technology incentives** are being given to teachers and schools to encourage them to embrace the use of ICT for teaching and learning.

- A set of **best practice presentations** are made available to teachers and managers on how to integrate ICTs in management, teaching and learning.

- Pre-service teachers training in higher education institutions **includes** basic ICT literacy and basic ICT integration into teaching and learning.

ICT TRAINING STATS

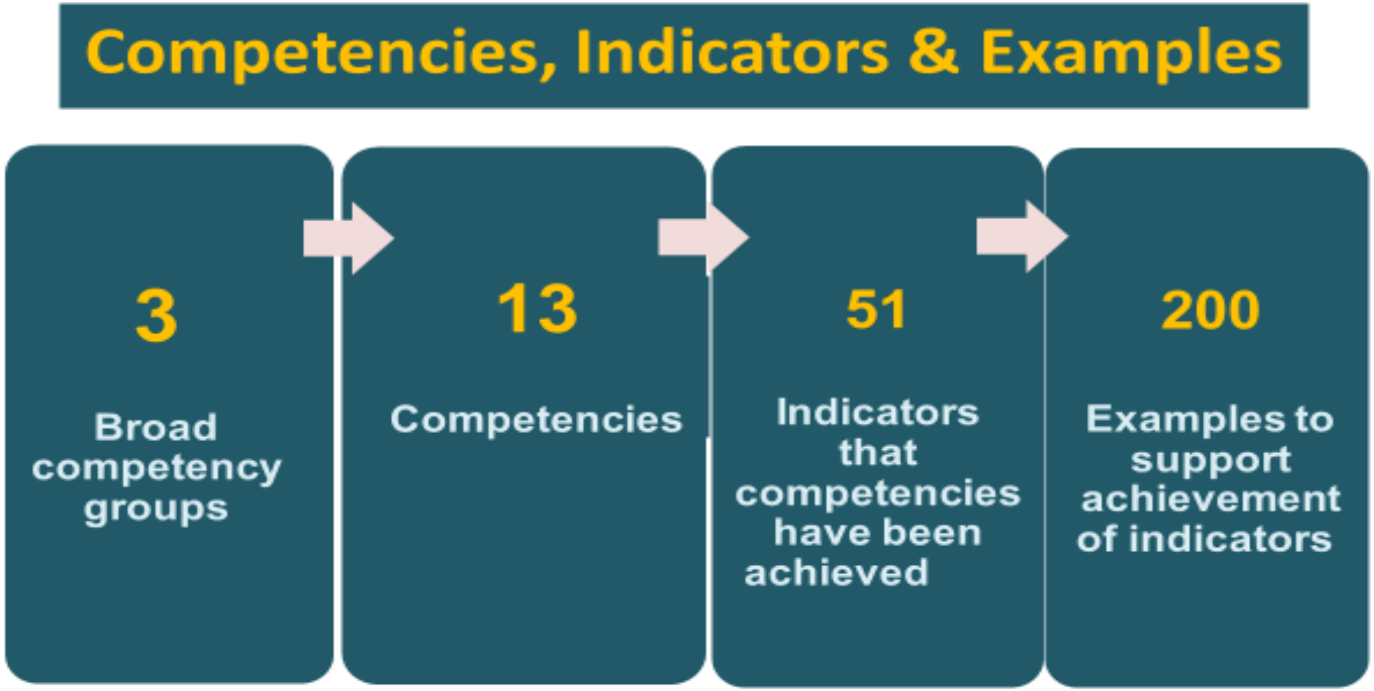
Total 2016/2017	2016	2017	Grand Total
Eastern Cape	4413	4189	8602
Free State	9040	0	9040
Gauteng	1723	0	1723
Kwa-Zulu Natal	1942	259	2201
Limpopo	1000	600	1600
Mpumalanga	18637	5846	24483
Northern Cape	4038	526	4564
North West	1938	374	2312
Western Cape	38564	5439	44003
Total	81295	17233	98528

Professional Development Framework for Digital Learning

South Africa's Version of UNESCO ICT Competency Framework

Who it is for

Professional Development Framework for Digital Learning



Professional Development Framework for Digital Learning

What supporting resources does it offer?

Supporting resources

1. Toolkits
- District
- School
- Teacher
- HEI

2. Apps for Windows, Android & iOS

3. Self-evaluation tools
- Teachers
- SMTs
- Schools
- Districts
- Lessons
- Courses

4. Database of activities

Access the site by clicking on this link (http://bit.ly/DLC-App).

Professional Development Framework for Digital Learning

Intended outcomes…

Education leaders with a plan for PD

Teachers prioritize PD needs

Learners achieve curriculum goals

Endorsed PD activities

New teachers as digital learners

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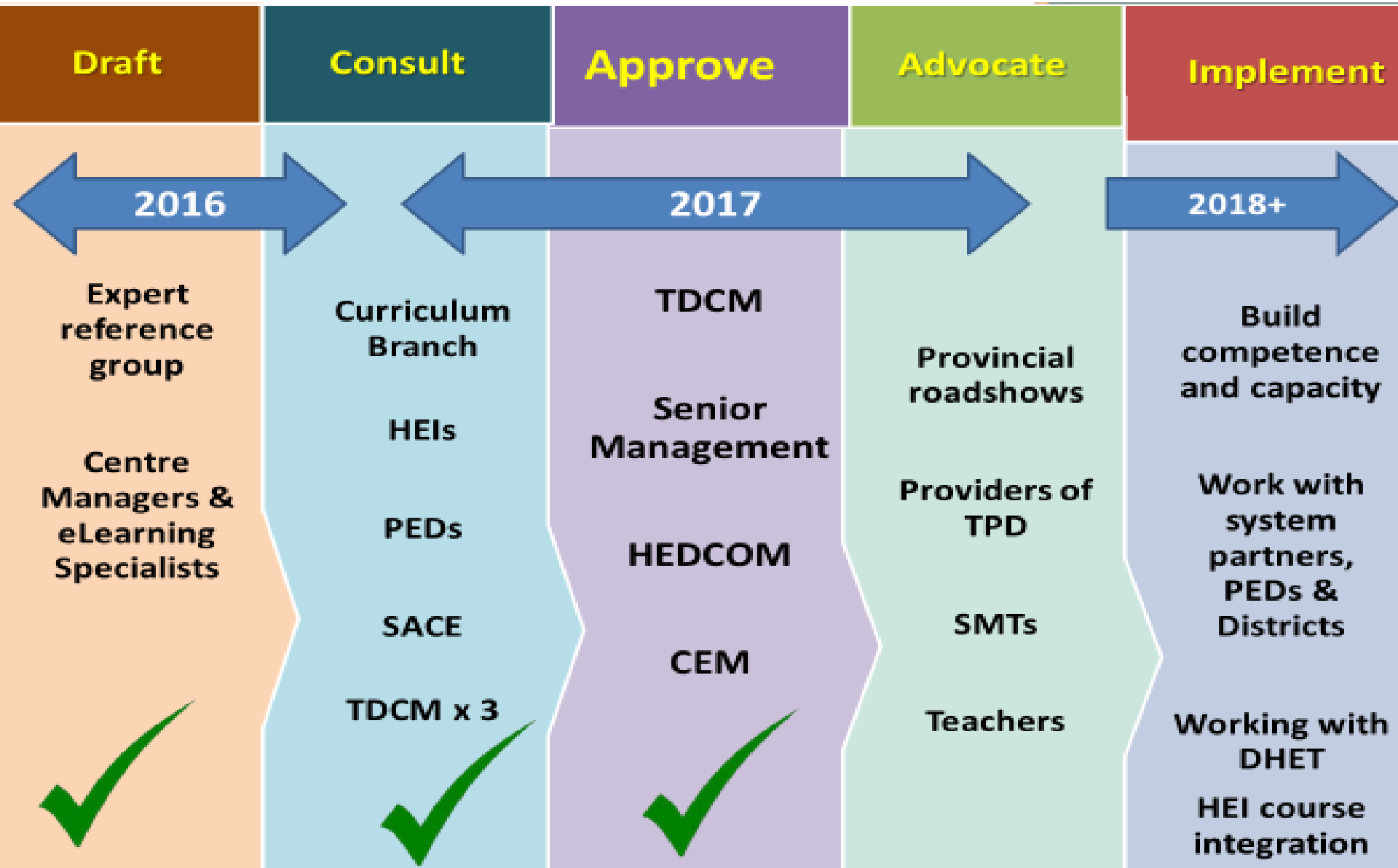
Professional Development Framework for Digital Learning



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SACE AND HEIs

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SACE and HEIs

- **Currently, SACE is being engaged to:**
  - Standardise ICT in teacher practice courses for HEIs, so that all teachers across the country acquire the same skills
  - Provide an online MOOC for ICT integration courses (integrating ICTs in teaching and learning)
- **Currently only 6 of the 14 major HEIs** offer ICT in teaching and learning courses of trainee teachers.
  - However, DBE aims to remediate this matter by first developing standardised courses and
  - Getting SACE to approve them and
  - Promulgating them e.g. on the MOOC.

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ICT4Red

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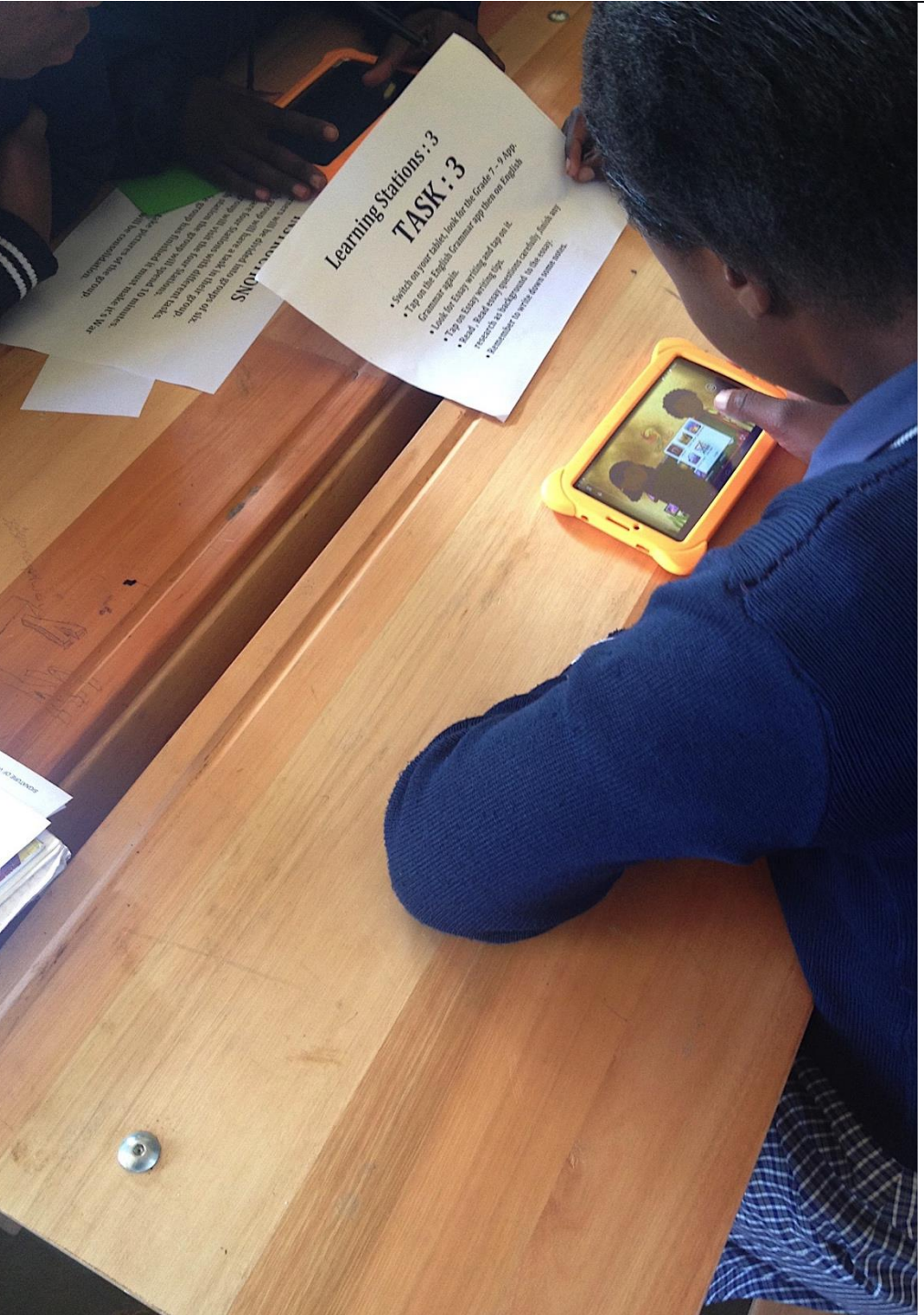
ICT4Red

- **ICT4Red** was a project run by the Council for Scientific and Industrial Research (CSIR) under the auspices of the Department of Science and Technology (DST) and in partnership with the ECDOE and DBE
- **Stands for ICT for Rural Education**
- **Delivered tablets**, training and connectivity to schools
- Through their **TECH4RED** project (technology for Rural Education), delivered sustainable power supplies and sanitation.
- **Teacher ICT courses** included a **range** of **techniques** to integrate ICTs in the classroom including the flipped classroom, rewards for attending courses; including micro-accreditations for course components
- Teachers were given tablets and only allowed to have them if they completed the training **(earn while you learn)**
- **https://ict4red.co.za**

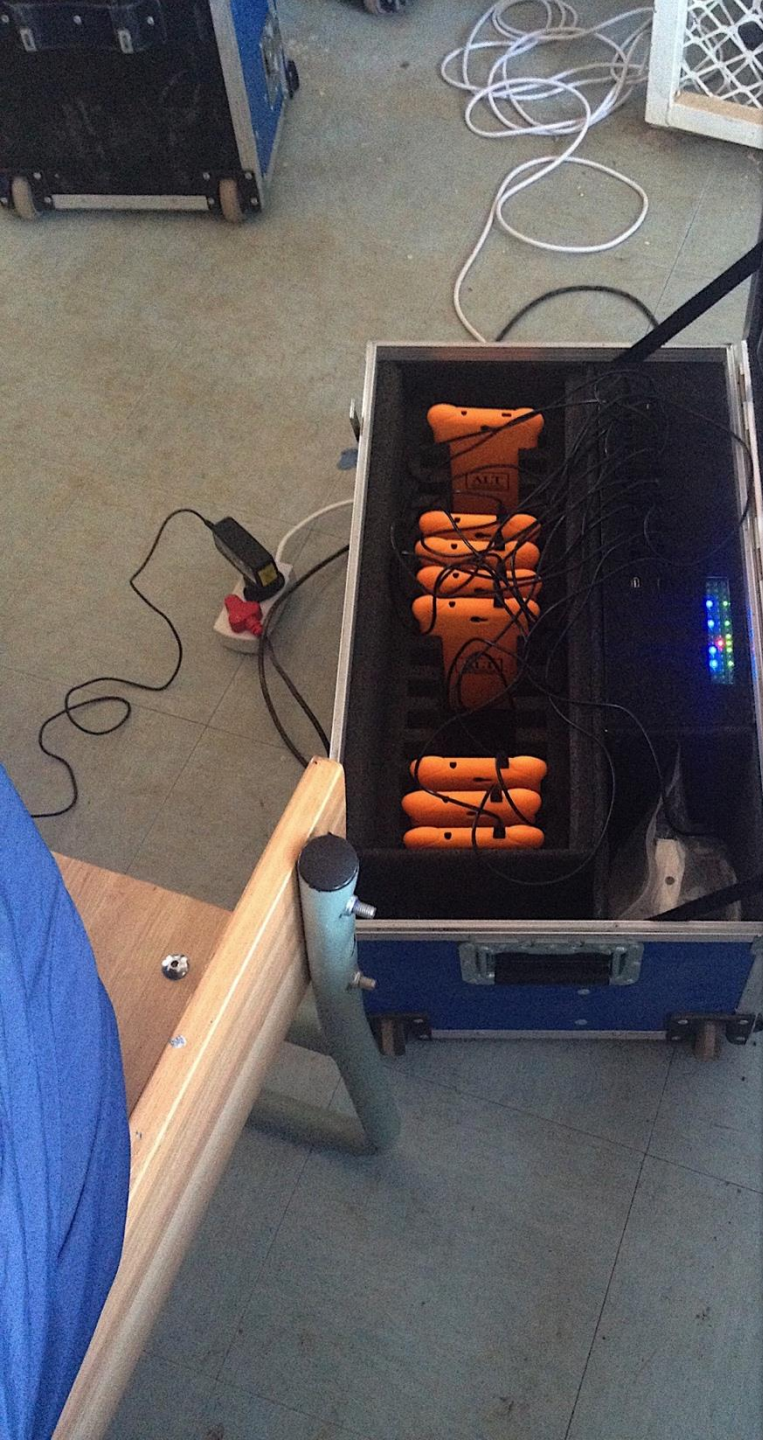
UNAUTHORISED
ENTRANCE
PROHIBITED
PGS 011
DANGER
H_2
PGS 010

ruckus
MOBI KIT
0008

Tablet care
Always wash your hands before you use the tablet.
Always carry the tablet with two hands.
Handle the tablet carefully – don't throw it or drop it.
Don't leave the tablet in the sun, rain or in the dust.
Share the tablet with your friends when the teacher asks you to.
Don't eat or drink near the tablet.
Don't run Apps without your teacher's permission.
If you see this symbol on your screen, let your teacher know.
10%
Clean your tablet with the special cloth after you've used it.


Learning Stations : 3
TASK : 3
• Switch on your tablet, look for the Grade 7 – 9 App.
• Tap on the English Grammar app then on English Grammar again.
• Look for Essay writing and tap on it.
• Tap on Essay writing tips.
• Read, Read essay questions carefully finish any research as background to the essay.
• Remember to write down some notes.

Learning
stations 7



6-1=?
8-2=?

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CHALLENGES AND REMEDIAL MEASURES

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CHALLENGES AND REMEDIAL MEASURES

Item	Challenge	Remedial Measure
Lack of standardisation	• Multiple implementers / implementations of training, methods, suppliers, • Both nationally, locally / provincially	• ICT Strategy, in development, will require alignment and homogenisation and collaboration
Inconsistent monitoring and reporting	• Monitoring of curriculum completion is done on paper • Monitoring of teacher ICT training is quarterly and sometimes figures disagree	• Monitoring must be aligned to national ICT initiative and items measured must align • Reporting must be digitised • However this is only meaningful once courses are standardised
Teachers confidence	• Teachers sometimes avoid ICT solutions and integrating ICT in teaching and learning	• Advocacy roadshows
Poor connectivity	• MOOCs can't be accessed in all locations meaning that training has to be delivered in person	• Connectivity plan is being devised

CHALLENGES AND REMEDIAL MEASURES

Item	Challenge	Remedial Measure
Consistent sector-wide ICT teacher pedagogy courses, SACE and SAQA accredited	• Costs involved in developing course content and assessment instruments • Costs involved in surveying existing courses in detail and amalgamating • Costs involved in re-training lecturers	• Engage with HEIs, DHET, SACE, SAQA • Identify desired course content • Develop working group to develop course content with HEIs and DBE • Identify funding source
Teachers training	• Cost of training or re-training (pre-service and in-service)	• PEDs have funding for this purpose
Learners do not know how to use the web accurately	Learners do not know how to determine if content is accurate or “fake news”	• Show learners how to identify bad content • Train teachers how to identify bad content and show learners how to
Learners/Pupils/Students get distracted and so teachers dislike ICTs	• Teachers reject devices in class because they disrupt lessons and are a distraction. • Learners are distracted by entertaining features/sites.	• Advocate for device use by showing the power of ICTs in learning • Develop rules and good practices manuals or Acceptable Use Policy

RECOMMENDATION

That the Global Dialogue on ICT and Education Innovation **discuss** the Operation Phakisa ICT in Basic Education initiative on Teacher ICT Capacitation.

Thank you!

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