ICT INTEGRATION IN TEACHER PROFESSIONAL DEVELOPMENT

Challenges and opportunities through the experiences of Matthew Goniwe School of Leadership & Governance

Introduction

The following presentation is a summary of the research and programme implementation journey in teacher professional development in respect of ICT integration in Gauteng Province for the period **2014-2024.** This report focused on impact assessment studies Etherx Group (2021) and Morongwa Group (2024).

Future Professional Development Model

The model is a response to the challenges experienced in the past 8 years of ICT implementation. The following weaknesses were identified; Training and development programmes were **not based on competency** model. The **nexus of change needs to be shifted** from District Based Committees to Department Heads in Schools who will oversee ICT integration.

Learning journey:
Personal Journey: emphasis on personal mastery
Professional Journey: emphasis on vertical and horizontal professional development
Technological Journey: ICT affordances

5. Mastery Level
4. Advanced Proficiency
3. Intermediate Proficiency
2. Basic Proficiency
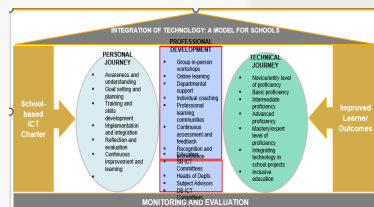1. Novice/Entry Level

Background

The Matthew Goniwe School of Leadership & Governance commenced its digital literacy program in 2014 with a **pilot study 5+2** (UWESO , 2015) schools to test the feasibility of integrating ICTs to teaching and learning. In 2016 the institution commissioned the **Change Management study** focusing on SMTs through (Dual Point , 2016). In 2017 the institution completed an **e-Readiness Assessment study** (Wits ,2018) to explore how ICTs improve teacher and learner engagement. To date two impact assessments have been concluded , **Etherx Group (2021)** focused on beneficiary perceptions of the interventions and finally **Morongwa Group (2024)** focused on the return on investment using the EEE framework (Economic , Efficiency and Effectiveness).

Context

- GDE has rolled out ICT devices and resources to 604 schools.
- E-Books and e-content have been availed through DBE and GDE.
- Connectivity and internet access through GBN and LTE

Problem Statement

- The quality of teaching and learning is not of uniform standards.
- There is a need to improve teacher and learner engagement using ICTs.
- Data and evidence driven decision-making requires teachers to be fluent in ICTs.

Conceptual Frameworks Developed

The CoPAF Model is an integration model adapted from TPACK (2009). It emphasis on the following knowledge components , (i) Content , Pedagogy , (iii) Assessment and (iv) Full ICT integration of technology.
Other models used;
ADDIE for instructional design
10:20:70- framework used for optimal knowledge components , 10% theory , 20% practical application and 70% work integrated learning.
Differentiated approach- Beginner , intermediate and advanced.
School Based Support-just in time

Outcomes

ETHERX GROUP (2021)
The results of summary statistics and quintile regressions **asserted high ICT adoption** , utilization and integration. Results of associated opinion and attitudes were **linear and positive.**

MORONGWA GROUP (2024)
Effectiveness of school support-84 % of the teachers indicated that ICT integration translates to positive learning outcomes.
Readiness Matrix- schools selected should not be randomly selected.
Sustainability- There is need for institutional support and policy alignment.
Relevance- Change management programs should be compulsory.

Theory of Methods

ETHERX GROUP (2021)
- Mixed method study
- 40 schools sampled
- Interviews
- Questionnaire
- The dictum: MGSLG training models impact on learner outcomes , utilization of ICTs were individual composite indices using principal component analysis (Spearman rank test)

MORONGWA GROUP (2024)
- Mixed methods Network Evaluation criteria
- Utilized OECD DAC
- Number of schools sampled-160
- Questionaire-131 schools
- Number of respondents- 604

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