

# 3<sup>rd</sup> RESEARCH AND INFORMATION LITERACY SKILLS IN THE WORKPLACE SEMINAR

A FOCUS ON DATA LITERACY



Cape Peninsula  
University of Technology  
creating futures

CPUT LIBRARIES

## The Importance of Data Literacy in the Teaching Profession



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- Data literacy at undergraduate level
- Data literacy at postgraduate level
- What is required in the workplace?
- Research in the classroom
- Further studies for teachers
- Way forward





## **DATA LITERACY:**

The ability to read, understand, create, and communicate data as meaningful information.

How to work with data, interpreting charts, graphs, and numbers, asking the right questions about the data's source, quality, and relevance.

Interpret insights from data and use these insights to make informed decisions.



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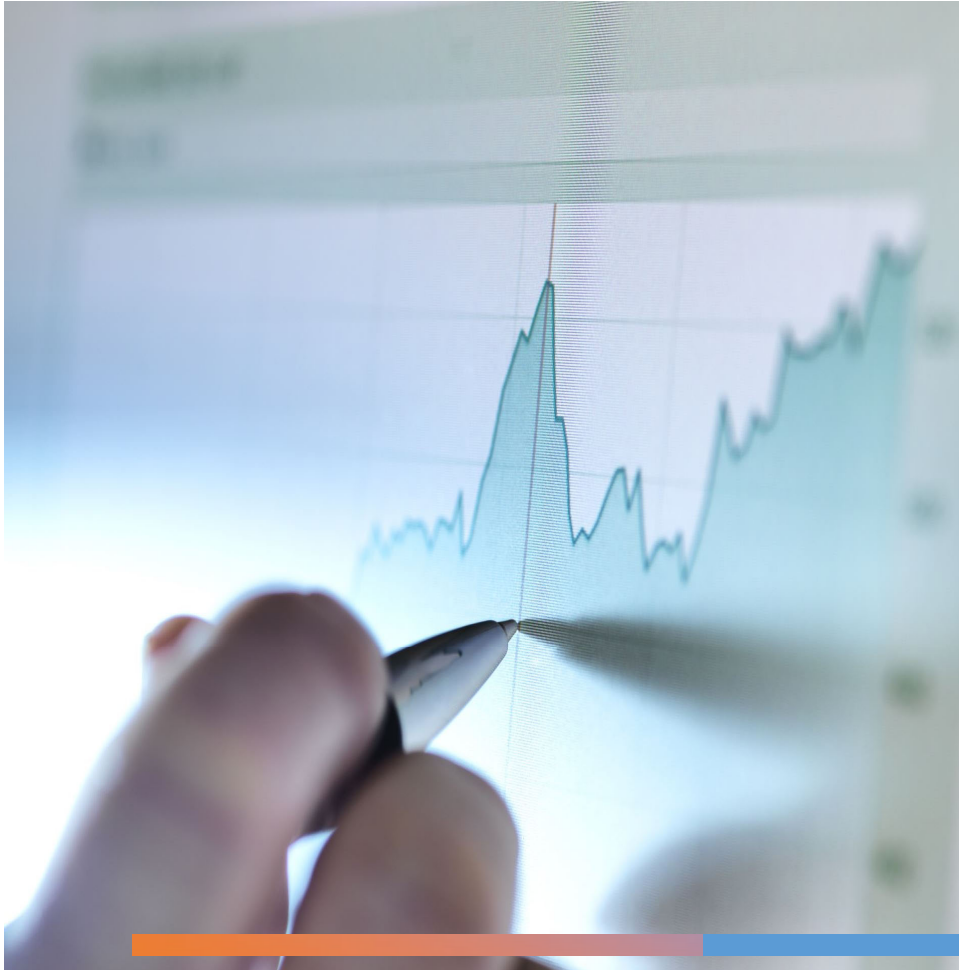
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# Undergraduate studies

## Data Literacy

### **B. Ed. Curriculum**

- Academic and research knowledge
  - Pedagogical content knowledge
  - Professional knowledge
  - Classroom knowledge
  - Continuous assessment
- 
- Data literacy essential for pre-service teachers, to analyse, interpret and utilize data



**Understanding Educational Data:** student assessment scores, attendance records, behavioural data.

**Interpreting Data for Student Growth:** standardised test scores or formative assessment - informed decisions about targeted support.

**Differentiating Instruction Based on Data:** creating lessons and interventions that address specific student needs.

**Using Data Tools and Technology:** data management systems and software to track and analyse student data.

**Ensuring Data Privacy and Ethical Use:** POPIA, share data with stakeholders responsibly.

**Evaluating Data Quality and Bias:** critical thinking about the reliability and validity of data sources.

**Collaborating with Colleagues:** collaborative data analysis discussions with colleagues



# The current reality

- Not enough exposure to data
- Minimum data interpretation
- Students' assignments not related to data
- No critical thinking re data use
- Coherence missing
- No link between data and real life



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# Challenges pre-service teachers face



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## Limited Access to Technology



## Lack of Digital literacy skills



Difficulty navigating online platforms



Information overload & Digital distractions



Cybersecurity

# The Novice Teacher



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**Work in a team  
[Collaborate]**

PLCs  
MS  
Teams

WhatsApp

Google

Navigate your way amongst online platforms used by the WCED officials to support teachers



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**Show passion when teaching  
[learn, unlearn, re-learn]**

Teaching  
methodologies  
Research

Learner  
profiles  
Analysis  
Research

Subject  
Pedagogy  
Research

Ability to do effective research, analyse, present findings and recommend

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**Manage your time. It's precious!**  
**[Time Management]**

Work smart  
not hard  
Microsoft  
(Word, PPT  
etc)

Informal  
assessment  
online  
Google  
Forms

Differentiate.  
Keep ALL  
learners  
busy

High level of competency in Search Engines, Online Safety, MS software

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Never stop learning  
[Lifelong Learner]

Hons, MA,  
PHD

E-pedagogy

Educational  
trends in SA  
context

Ability to learn everyday and clearly distinguish - using research - what would work for the context we serve



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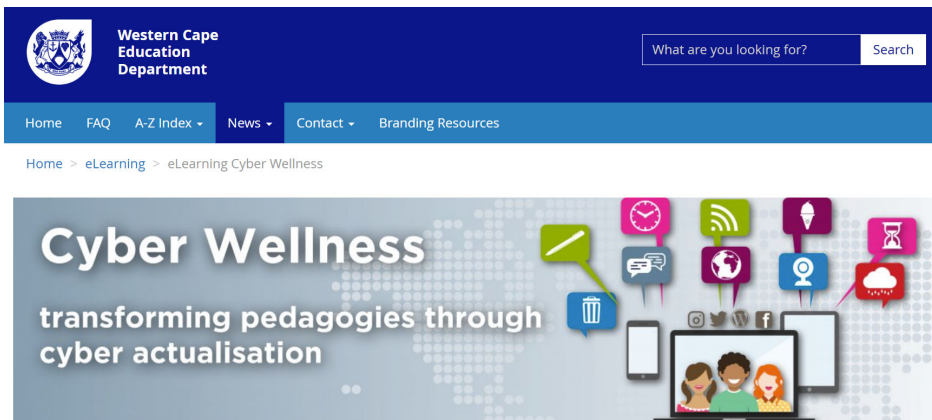
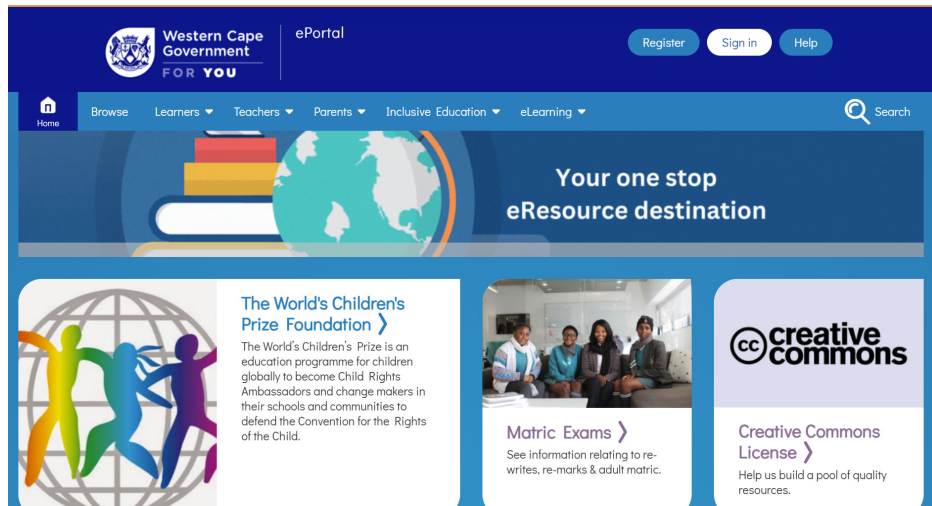
## Overcome Obstacles [Resilient]

Psycho-social  
wellness  
Online  
courses


Research  
on learner  
behaviour

Personal  
Growth  
research


Be able to present resilience in the tough moments



# Welcome to Digital Literacy Skills for the WCED



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## Overview

This Digital Literacy Skills course range is designed to assist end users acquire fundamental to advanced skills.

These courses will assist you in the knowledge and practical application of the skills acquired to work more effectively and collaboratively.

## Delivery Method

Online  
Self-paced  
Non-instructor led

## Features and Benefits

Acquiring these Digital Literacy Skills will:

- enhance your day-to-day work processes, improve efficiency, workflow, collaboration, and overall ICT experience within the workplace.
- simplify signing up for and participating in more advanced courses.

## What you get

An eCertificate will become available for you to download upon successful completion of each digital literacy skills course.

## ICT Skills Assessment

Skills assessments are performed to identify the level of competency and readiness for the next digital learning course.

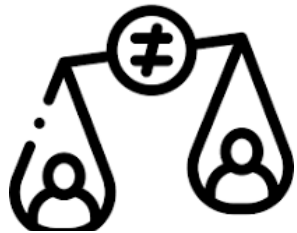
# Challenges in-service teachers face



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**Inequalities**



INFRASTRUCTURE

**Infrastructure**



**Knowledge**



**Digital literacy skills**



**Access**



Online education

**E-education**





# Way Forward



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Upskill lecturers to prepare lessons using digital literacy

In-service teacher training to have a digital literacy component

Research tasks which incorporates pedagogy and curriculum matters

Current curriculum [CAPS] ATP 2023/2024 has potential for digital literacy to be infused

Research tasks which includes data interpretation and solutions

Project based learning in term 3 exposes learner to 21<sup>st</sup> Century skills. Teachers to be trained to use digital tools.



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