



**Advancing critical thinking through teaching, learning and assessment: Assisting schools to become thinking communities**

**Umalusi and UJ School of Tourism and Hospitality**

**Developing standards across sectors**

**A new kind of thinking**

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**OPTENTIA**

**IACESA**



**INTERNATIONAL ASSOCIATION  
FOR COGNITIVE EDUCATION  
IN SOUTHERN AFRICA**



**NORTH-WEST UNIVERSITY  
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NOORDWES-UNIVERSITEIT  
VAAL TRIANGLE CAMPUS**

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# Aim of the presentation

- What can NWU/IACESA bring to the table to assist in achieving some of the objectives set out for the discussion?

# Ideals versus realities of the SA education landscape

## Ideals: Curriculum and Assessment Policy Statement

- **identify** and **solve problems** and **make decisions** using **critical** and **creative thinking**;
- **work effectively** as individuals and with others as **members of a team**;
- **organise** and manage themselves and their activities **responsibly** and effectively;
- **collect, analyse, organise and critically evaluate information**;
- **communicate effectively** using visual, symbolic and/or language skills in various modes;
- use science and technology effectively and **critically showing responsibility** towards the environment and the health of others; and
- **demonstrate an understanding of the world** as a set of related systems by recognising that problem-solving contexts do not exist in isolation (Department of Basic Education, 2011).

Since 1997: Strong cognitive focus

2015

# Ideals: Critical thinking in practice

Cognitive and metacognitive skills and strategies

- ✓ Interpretation
- ✓ Analysis
- ✓ Synthesis
- ✓ Evaluation - credibility
- ✓ Making inferences
- ✓ Explanation
- ✓ Self-regulation

Dispositions/intellectual traits

- ✓ Curiosity/inquisitiveness
- ✓ Scepticism/truth seeking
- ✓ Open-minded/flexible
- ✓ Analytical
- ✓ Systematic
- ✓ Judicious/integrity
- ✓ Self-confidence in reasoning
- ✓ Humility
- ✓ Courage
- ✓ Perseverance

Universal intellectual standards of reasoning

- ✓ Clarity
- ✓ Accuracy
- ✓ Precision
- ✓ Relevancy
- ✓ Significance
- ✓ Breadth
- ✓ Logic

Applied to.....

Purpose of thinking

Obtain relevant information

Justifying Assumptions

Point of view

Explain concepts and ideas

Inferences and interpretations

Implications and consequences



# Ideals versus realities of the SA education landscape

## Reality

- ✓ Learner drop-out rate.
- ✓ Poor performance in Maths and Science.
- ✓ Learners entering HEI lack essential thinking skills to learn effectively and progress academically – not completing studies
- ✓ School leavers not adequately prepared for life, the world of work.
- ✓ Underperforming schools.

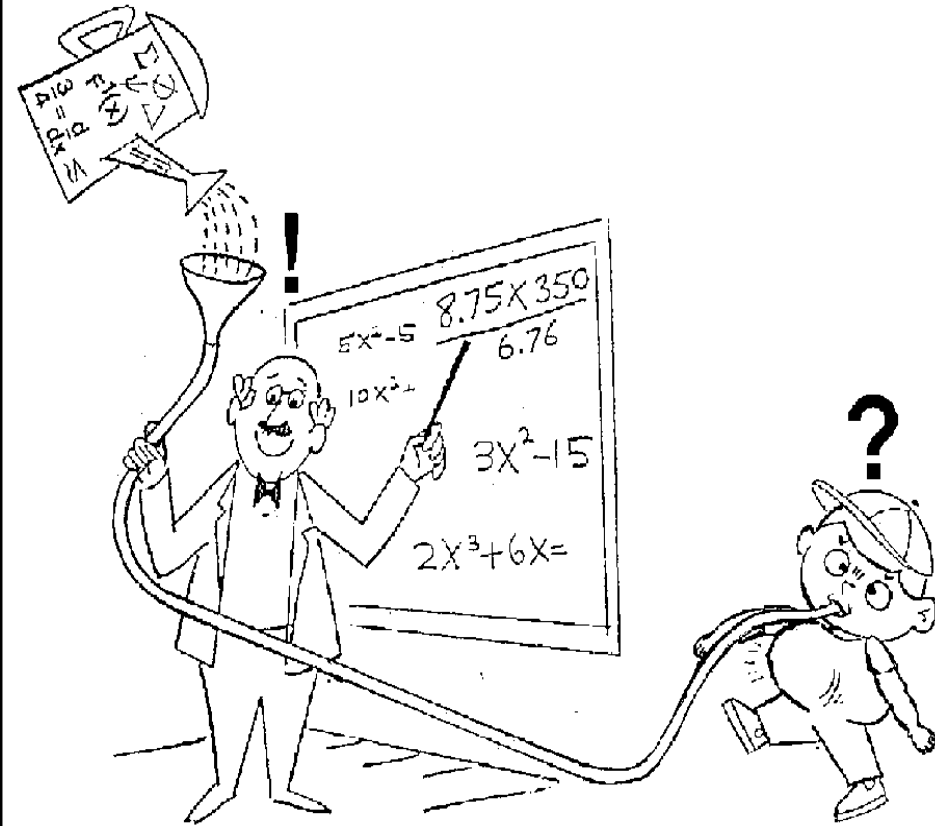
**Thinking is not the heart of teaching.**

Since 1997: Strong cognitive focus

2015

**Ideals appear not to have become reality in all classrooms**

# Ideals



Vreken & Nieuwoudt,  
2015

# Reality



# Ideals versus realities of the SA education landscape

- ✓ Do the majority of teachers understand that all the CAPS objectives refer to the nurturing of the various elements that comprise critical thinking?
- ✓ Do the majority of teachers understand what critical thinking implies?
- ✓ Do the majority of teachers understand how to purposefully/explicitly teach and assess for critical thinking in subject content ?
- ✓ Are the majority of learners made aware of the growth and development of their own critical thinking processes?
- ✓ To what extent do teacher training curricula prepare teachers to nurture critical thinking among learners explicitly?

# Reality: How do we achieve the curriculum ideals?



**"You must be the new hire. Welcome aboard. Here's our prepackaged curriculum. If time permits, encourage critical thinking."**



***"I expect you all to be independent, innovative, critical thinkers who will do exactly as I say!"***



# Outcomes of the discussion meeting

- ✓ Involve stakeholders in providing input to teacher development and in-service teacher support.
- ✓ Reflect on how productive, innovative and design thinking could be enhanced in teaching and learning practice.

# We need a *“tipping point”* to achieve the ideals of the curriculum

- ✓ The tipping point is that magic moment when an idea, trend, or social behaviour or educational practice crosses a threshold, tips, and spreads like wildfire.
- ✓ We are faced with a negative epidemic.
- ✓ We need a tipping point to ensure another contagious positive epidemic.
- ✓ We need a tipping point that will convince all stakeholders in education that the purposeful teaching of critical thinking across the curriculum is the moral responsibility of each teacher and not an option.

# An important message/idea that could activate a *"tipping point"*

- ✓ A **whole school approach (all stakeholders)** to the **international** teaching of critical thinking across the curriculum across school phases. (2012- )  
Schools to become Thinking Communities.
- ✓ Not a quick fix.
- ✓ Not a new curriculum.
- ✓ Not getting rid of current practices that work well in a school.
- ✓ No re-training of teachers.
- ✓ Infusing the intentional teaching of critical thinking into the teacher training curriculum (2012-2014)

# A flexible toolbox to assist schools to become Thinking Communities



....to purposefully teach for the development and assessment of critical thinking

....to prepare learners for coping with academic challenges and challenges on the road of life

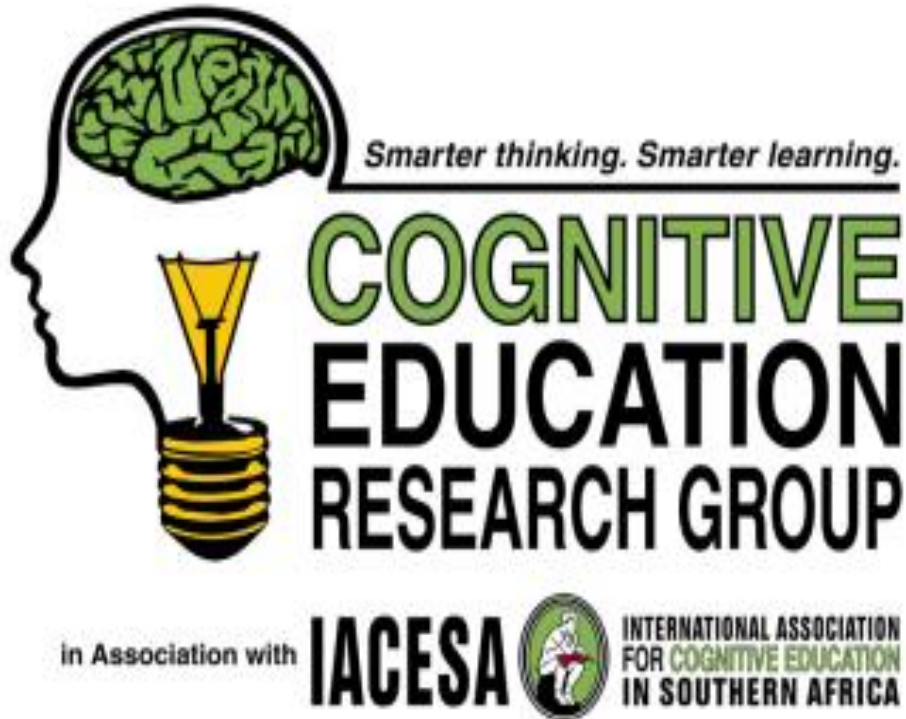
The toolbox contains a variety of generic strategies to advance critical thinking:

- ✓ Cognitive thinking skills
- ✓ Meta-cognitive strategies
- ✓ Critical thinking dispositions
- ✓ Universal standards of reasoning
- ✓ Continuous support and monitoring by subject specialists and cognitive education specialists (NWU/IACESA) - sustainability

Toolbox compiled in the format of an interactive training manual (2014)



# Short Learning Programme (SLP) in Cognitive Education



The aim of the NWU accredited SLP in Cognitive Education (NQF Level 6 – 80 hours) in association with IACESA is to equip in-service educators in South Africa with practical tools and approaches/strategies suitable for the South African teaching and learning context, in order to transform classroom practices and intentionally unlock students' critical thinking potential. This means educators should mediate the thinking skills, strategies and dispositions that are required for achieving the objectives of the Curriculum and Assessment Policy Statement (CAPS) actively and explicitly.

The NWU is currently in the process of seeking CPD approval for the SLP with SACE.



# Objectives of the SLP

## To assist pre-service and in-service educators in:

- ✓ Understanding the importance of cognitive education as a means to achieve the objectives of the Curriculum and Assessment Policy Statement of South Africa (CAPS) – a means by which students can be enabled to ‘become smarter’ at thinking and learning and cope better with academic and real life challenges.
- ✓ Planning developmentally appropriate teaching, learning and assessment activities to advance cognitive development among students across the curriculum.
- ✓ Understanding, applying and infusing a range of teaching, learning and assessment strategies to facilitate cognitive development (critical thinking development) among all students across the curriculum.
- ✓ Evaluating the effectiveness of teaching strategies to facilitate students’ cognitive development (critical thinking development) during teaching, learning and assessment.
- ✓ Identifying and eliminating factors that can hamper the successful implementation of a cognitive approach to teaching, learning and assessment.

# Outline of the SLP

- ✓ **Study unit 1: Conceptualizing cognitive education and the explicit teaching of critical thinking**
- ✓ **Study unit 2: The importance of cognitive education**
- ✓ **Study unit 3: Cognitive development processes**
- ✓ **Study unit 4: A Mediated Learning Approach to advance cognitive education**
- ✓ **Study unit 5: The Thinking School and the Thinking Classroom**
- ✓ **Study unit 6: Approaches/Strategies/activities to teach thinking**
- ✓ **Study unit 7: Cognitive principles and assessment**

**Performance-based assessment tasks**

How do we get the idea/message that teaching and assessing for critical thinking should be at the heart of all teaching across?

# Achieving a tipping point: The importance of networks

- ✓ Each of us embedded in a myriad of different networks.
- ✓ Complexity and variety of networks are areas for creative thought.
- ✓ We need to study these networks as they will assist us to achieve tipping points, spread the message.
  
- ❑ *Developing standards across sectors : A new kind of thinking*
- ❑ *Align stakeholder participation*
- ❑ *Involve stakeholders in providing input to teacher development and in-service support processes*

# Three types of people to achieve a tipping point

## Connectors



Central nodes

Many contacts

Stronger ability to spread message to large numbers

Transfer advice from mavens across boundaries

## Mavens



Information gatherers

Experts in the field of knowledge

Provide advice and information

Control/regulate what flows through the network

## Salesmen



Persuade, make the message “stick”

Propagate messages through the force of their character

Their persuasion can tip negative epidemics



# What can NWU/IACESA contribute?

We believe that we are **mavens** who have some suggestions/ideas/knowledge about how to purposefully advance the nurturing of critical thinking during teaching, learning and assessment across the curriculum.

We could assist in achieving the following objectives:

- *How productive, innovative and design thinking could be enhanced in teaching, learning and assessment practice*
- *Input to teacher development and in-service teacher support processes*

BUT:

We need **connectors** and **salesmen** to help us convey and sell the message that could lead to the tipping point.

# Conclusion

The development of critical thinking cannot be implied in the CAPS objectives, but it does not become reality in classrooms

Students who have an ability to think their way through problems, a confidence in their ability to do so, and who can apply critical thinking skills to understand their circumstances and explore options are more likely to successfully navigate through their school years and through life.

We need only to look at the world, and then look into the mirror, and decide if we will fulfil or betray the mission history has put before us; we who live at the tipping points; we who are the tipping points (Albert Camus).