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# Developing a multilingual mindset:

Promoting the development and  
use of students' strongest  
languages and empowering  
them in English as the academic  
lingua franca

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# Overview

1. Focus
2. Triggers
3. Theories and models of bilingual learning
4. Overview of empirical studies
5. Report on pilot research
6. My vision for the UAL

# 1. Focus

# Exploring the use of **translanguaging as a multilingual pedagogy**

- To **draw upon** students' **L1s/main languages/strongest languages**
- To support students in **acquiring higher cognitive literacies in the LOLT(s)**
- To explore opportunities in academic literacy classrooms for **term creation in students' L1s** and the **development** of these languages into **fully-fledged scientific languages**

## 2. Triggers

# Three triggers

- **Students' struggles** to study through medium of English (conceptual access);
- **Government policy frameworks** for the promotion of multilingualism in HE
- Involvement in a **DHET-funded project** on establishing a Multilingual Open Education Resource Term Bank (OERTB) for Higher Education

# Students' struggles to study through an L2

- Many studies confirming students' struggles  
Crawford Camiciottolo (2010) – **Italy**; Erling & Hilgendorf (2006) – **Germany**; Evans and Morrison (2011) – **Hong Kong**; Hellekjaer (2009) – **Norway**; Kagwesage (2013) – **Rwanda**; Kerklaan, Moreira & Boersma (2009) – **Portugal**; Tsuneyoshi (2005) – **Japan**; Dalvit & De Klerk (2005), Weideman (2006), Deyi *et al.* (2007), Ncobo (2014) – **SA**
- Causes
  - globalisation (mass media, mobility); massification of HE; poor schooling conditions
- Language as a right x Language as a problem x **language as a resource**
  - Drawing upon all students' linguistic repertoires to facilitate cognitive, social and affective processes in literacy and learning**

# Government policy frameworks

DOE 2002; 2003; DHET 2008; 2011; 2012a; 2012b

- **Conceptual access and social inclusion** (Stroud & Kerfoot 2013:396)
- To open **implementational** and **ideological** spaces for multilingual education (Hornberger & Link 2012; Madiba 2013)

*Language Policy for Higher Education* (DOE 2002);  
*Report on the Development of Indigenous Languages as Mediums of Instruction* (DOE 2003) **HOWEVER**

- **Policy failure/implementational failure:**

A need for "**radical re-conceptualisation of the design of academic language and literacy programmes**" [...] "**in which all available languages and semiotic resources are used and promoted in pursuit of learning**" (Stroud & Kerfoot 2013)



# OERTB Project

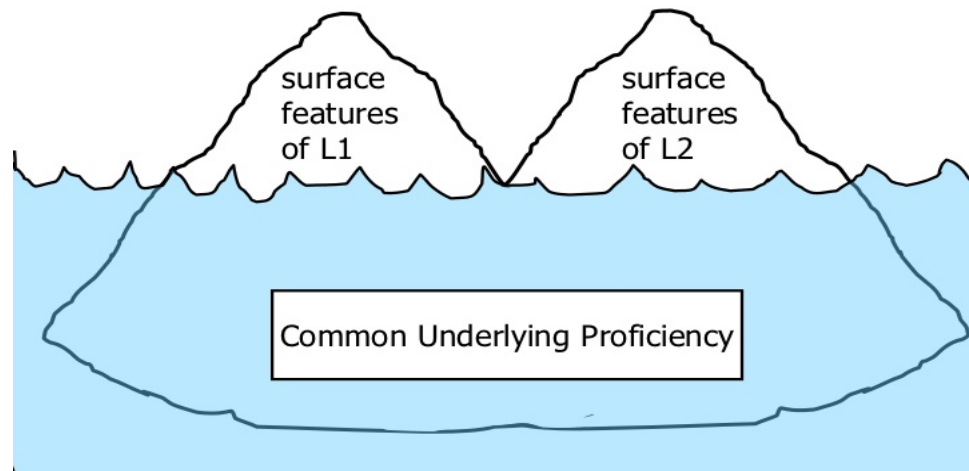
- Liaise with other universities to **source existing multilingual glossaries**
- **Build corpora** and create terminological resources for under-terminologised fields
- Make this information available via **online learning environments** in HE
- Encourage and facilitate the **use** of terminologies in **pedagogical contexts**
- **Standardise** terminologies



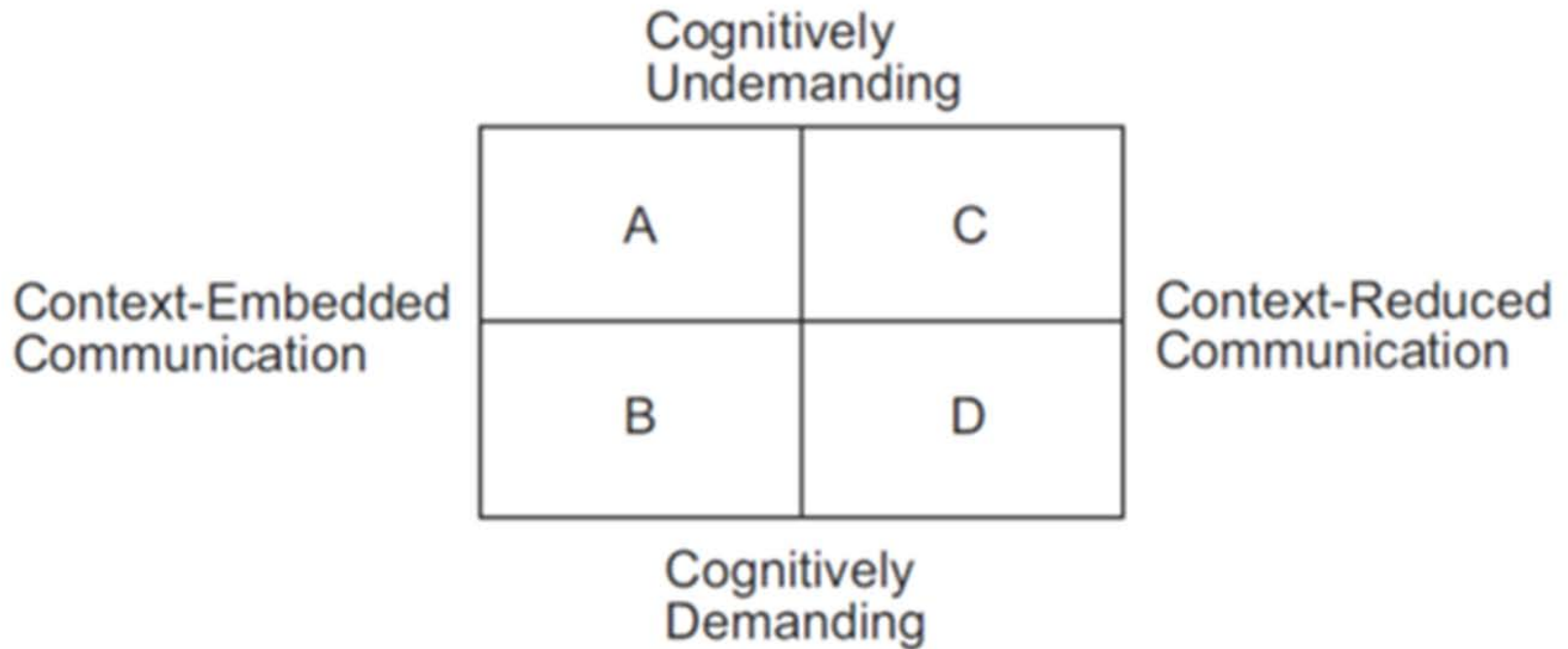
### 3. Theories and models of T & L in bi-/multiliterate contexts

# Common underlying proficiency; Threshold hypothesis (Cummins 2000)

- There is a common language proficiency that underlies the use of both languages in bilingual learners
- A certain threshold language proficiency in at least one language is to be obtained before an L2 speaker can reap cognitive benefits



# Cummins' (1996) four-quadrant model



# Interpretation in a multilingual context

COGNITIVELY UNDEMANDING

C  
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N  
T  
E  
X  
T

E  
M  
B  
E  
D  
D  
E  
D

C  
O  
N  
T  
E  
X  
T

R  
E  
D  
U  
C  
E  
D

A

Interpersonal communication in  
face to face contexts

*L1 /other vernaculars*

C

Interpersonal communication in  
a-synchronous contexts

*L1/other vernaculars and/or L2*

B

Exploratory classroom talk about  
academic topics (incl. analysing,  
problem solving, reflecting)

*Flexible use of L1 and L2 (LOLT) +  
other modes of communication*

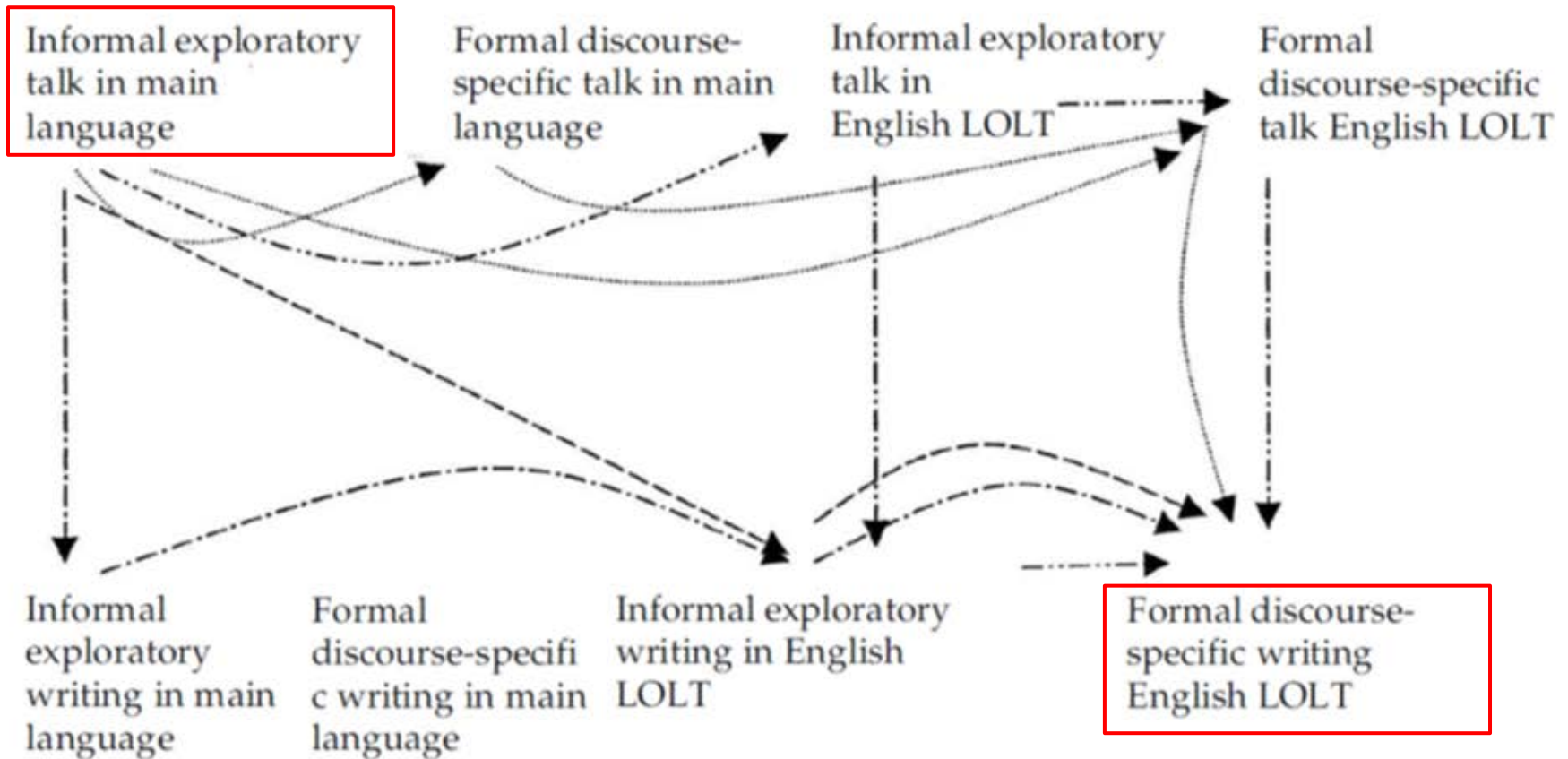
D

Higher-order reasoning; critical  
reading and writing of academic  
texts; use of terminology

*English (L2), Afrikaans; DHET  
imperative to develop African  
languages to this level*

COGNITIVELY DEMANDING

# Setati, Adler, Reed & Bapoo's 'Journey' model (2002)



**Several shifts:** Informal to formal; talk to text; L1 to English; exploratory to discourse-specific

# Hornberger's Continua of biliteracy model (1989; 2002; 2003; 2006)

**Traditionally less powerful <-> traditionally more powerful**

## Contexts of biliteracy

micro <-----> macro  
oral <-----> literate  
bi(multi)lingual <-----> monolingual

## Development of biliteracy

reception <-----> production  
oral <-----> written  
L1 <-----> L2

## Content of biliteracy

minority <-----> majority  
vernacular <-----> literary  
contextualised <-----> decontextualized

## Media of biliteracy

simultaneous exposure <-----> successive exposure  
dissimilar structures <-----> similar structures  
divergent scripts <-----> convergent scripts

# Advantages of continua models

- Challenge educational policies and practices that privilege compartmentalised, monolingual, written, decontextualized language and literacy practices
- Open up spaces for implementing fluid, multilingual, contextualized practices and voices, e.g. through **translanguaging**



# 4. Translanguaging

# A definition of translanguaging

"At least two languages are used in a functionally integrated manner to mediate **cognitive**, **social** and **affective** processes in **literacy and learning**" (Palmer, Martinez, Mateus & Henderson 2014:759).

# Advantages of translanguaging

- **Cognitive:** mediate mental processes and understand subject matter (Garcia 2009; Lewis et al. 2012:645)
- **Cognitive:** developing 'weaker' language (Baker 2011:290)
- Facilitates **co-operation**
- **Metadiscursive** gains (Garcia 2011:147)
- Allows **flexible identities; plural selves:** (Pavlenko & Norton 2007; Creese & Blackledge 2010; Makalela 2015)
- Promotes **multimodality** (Wei 2011:1)
- **Platform for corpus development** (Madiba 2014, Paxton 2009)

# Empirical studies in higher education in SA (past 10 yrs)

- Paxton 2009** – how bi- & multilingual students build on the L1 to **make sense of new concepts**; **experiment with term creation**
- Madiba 2010, 2014**; - **multilingual glossaries** to promote concept literacy through multilingual **concept literacy** tutorials
- Ramani et al. 2007** – challenge the view that corpus planning should precede acquisition planning; show how **terminologisation** can be facilitated through pedagogic processes
- Makalela 2014; 2015** - the effectiveness of **fluid** communicative language practices and **identities** among Nguni learners of Sepedi as an L2 through an 'ubuntu' lens;
- Van der Walt & Dornbrack 2011** – strategies that Afrikaans-English bilingual students use to mediate **cognitively challenging material**
- Van der Walt & Kidd 2013** – facilitate **reading comprehension** in English
- Boakye & Mbirimi 2015** – lecturers' views on translanguaging

# 5. Pilot research project



# Construction Economics

**BWT 110 Building Science**  
**English group**  
**L1 all 11 languages +**  
**N=90**  
**MOI English**

**BWT 110 Bouwetenskap**  
**Afrikaans group**  
**L1 Afrikaans**  
**N=60**  
**MOI Afrikaans**

**Write a report on a site visit ('boundary object')**

**ALL 122 Academic Literacy**  
**English group**  
**L1 all 11 languages +**  
**N=90**  
**MOI English**

**ALL 122 Academic Literacy**  
**Afrikaans group**  
**L1 Afrikaans**  
**N=60**  
**MOI English**

# Research questions

1. How **effective** is **translanguaging** as a meaning making strategy?
2. What are **students' attitudes to translanguaging** as a pedagogical strategy?
3. How effective is translanguaging in facilitating **L2 development** (English)?
4. How **effective** is translanguaging in supporting **term creation** in African languages?
5. What are students' **attitudes to term creation** in African languages?
6. How useful are **students attempts at creating terms and writing definitions** in African languages

# Data gathering

- Participants
  - English class 41 : 9 IsiXhosa, 7 IsiZulu, 10 Sepedi, 7 Setswana, 4 Xitsonga, 4 Tshivenda, 16 English; Afrikaans class: 55
- Procedure
  - Read text on waste management
  - Receive concept map with English terms
  - Match terms with definitions
  - Translate terms & definitions into L1
- Administer questionnaire based on RQs





# Data analysis (qualitative)

- **Themes** (a priori – literature based)
  - Translanguaging as a **meaning making** strategy **Q1, 2**
  - Gains in **L2 development** **Q3**
  - Attitudes toward **terminologisation** of the L1 **Q4, 5**
- **Reasons for positive/negative responses** per theme (a posteriori)
- Preliminary exploration of results of **term-creation and translation into the L1**

# Findings

## Theme 1: Scaffolding understanding

### **p. 17 Positive 78 (code 1)**

Translanguaging facilitated understanding (28/41 Eng.; 50/55 Afr.)

- See bigger picture
- Distinguish between concepts
- Simplify complex concepts
- Safe space for negotiating meaning
- Make myself understood

### **p. 18 Negative 21 (code 2)**

Translanguaging did NOT facilitate understanding (15/41 Eng., 6/55 Afr.)

- L1 too complex
- Too much internal variation in L1
- Lack of specialised vocabulary in L1
- More proficient in English
- English is language of scientific communication

# Theme 2: L2 development

## **p. 21 Positive 72 (code 3)**

English skills improved as a result of translanguaging (21/41 Eng.; 50/55 Afr.)

- L2 vocabulary expanded
- L2 confidence increased

## **p. 21 Negative 20 (code 4)**

English skills did NOT develop as a result of translanguaging (15/41 Eng.; 5/55 Afr.)

- More proficient in English than L1

# Theme 3: L1 terminologisation (only English group = 41)

## Positive

### Code 5 p. 21

Translanguaging = platform for term creation in African languages (31/41)

- Sense of agency

### Code 7 p. 23

Intend using terms in future (22/41)

- Social cohesion between different L1 speakers on site
- Social cohesion among members of same L1 (identity)

## Negative/neutral

### Code 6 p. 22

Translanguaging = NOT platform for term creation in African languages (10/41)

- Only realised over time
- English is lingua franca

### Code 8 p. 23

Do NOT intend using terms in future (19/41)

- L1 is complex
- Other speakers of the L1 may not understand (internal variation)

# Value of students' attempts at term creation and defining concepts

## Term equivalents

For many English terms one- or two-word equivalents could be supplied:

### **Xitsonga**

**disposal = dispose:** lahla

**re-produce:** endla nakambe

**reduction/minimisation = reduce:** hunguta

**incineration = incinerate:** hisa

**repair:** lulamisa

**refill:** ngetelela

**second-hand use:** tirhisa nakambe

- A noun or an adverb often added to specialise meaning

### **Xitsonga**

- **incinerate**: ku hisa thyaka (to burn dirt/waste)

### **Tshivenda**

- **recycle**: u shumisa lu sa fheli (to use repeatedly)

- Nominalisation may be difficult to transfer to African languages

### **Xitsonga**

- **landfill (n)**: ku tatasisa [mu]goji (v) (to fill up a hole)

### **Tshivenda**

- **incineration (n)**: u fhisa (v) (to burn)
- **landfill (n)**: tshigodini (derived n) (in the small hole) **mugodi wa tshika (n)** (hole of rubbish)

- Students largely unaware of transliteration as a term-creation strategy

### **Sepedi**

- **recycle**: resaekele

### **isiZulu**

- **second hand**: isekeni (second)

# Possibility of harmonisation?

- For 5 out of the 11 terms the isiXhosa and isiZulu groups provided the exact same equivalent:

**disposal**: ukulahla

**reduction**: ukunciphisa

**incineration**: uku(t)shisa

**second-hand use**: isekeni

**refill**: ukugcwalisa futhi

# Definitions

Meaning understood, but sometimes 'amateur' formulation

## recycle

### IsiZulu

*Students*

**ukuvuselela** (revive)

Ukuthatha udoti udenze into ongayesebenzisa futhi (to take [any] dirt and make something that you can use again)

*Expert*

**ukuvuselela kabusha** (to make something anew)

Ukuthatha izinsila bese wenza into enye ongayisebenzisa (to take waste, then make another thing that you can use)

### Afrikaans

*Students*

**herwin**

Om vullis te transformeer en verskillende produkte te maak (to transform waste and make different products)

*Expert*

**herwin**

Om afvalprodukte te herverwerk en nuwe produkte daarvan te maak. (to use reprocessed waste for manufacturing new products)



# Summary of results

## 1. Cognitive benefits

- Paint bigger picture
- Simplify complex concepts
- Differentiate between concepts at the same hierarchical level

## 2. Affective benefits

- *Afrikaans group*: space for group collaboration and speaking; build confidence in L2
- *English group*: safe space for exploratory scientific talk in L1

## 3. L2 learning

- *Afrikaans group* largely positive:
  - Appreciate opportunities to speak English in non-threatening environment
  - Vocabulary learning
- *English group* less positive
  - English as a MOI to Gr 12; some never studied through L1

## 4. Process of terminologisation/intellectualisation

- Positive: cohesion (inter- and intra-group)
- Negative: L1 complexity

## 5. Students' attempts at supplying term equivalents and definitions in the L1

- African languages can be used to discuss scientific concepts – students' definitions are proof
- For many English terms single- or two-word term equivalents can be found in African languages
- Students in programmes other than languages cannot be expected to do the work of linguists – term-creation and defining should ideally be done by experts (language and subject-field)
- Students are able to corroborate (or contest) expert created terminological information:
  - Use expert-created definitions for conceptualisation
  - Use expert-created terms as labels for concepts
  - Provide feedback → assist in standardisation and development of African languages as LOLTs.



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## 7. My vision for the UAL



- Remain centrally involved in assisting students to master subject specific discourses in **scientific/professional English/Afrikaans** through a visible pedagogy (demystify academic discourse)
- Open up spaces for students to draw upon their unique sets of semiotic resources (**mother tongue** and multimodal resources)

# Through implementing a functional multilingual pedagogy

## Functions

- **Content acquisition:** curriculum access/ facilitate understanding
- **Language acquisition:** support linguistic development, e.g. lexical, semantic, syntactic, morphological
- **Classroom management:** give directives; create movement to the next learning objective, stimulate participation
- **Interpersonal relations:** e.g. create an affective climate conducive to learning; negotiate flexible identities



## Facilitation strategies

- Multilingual concept maps
- Multilingual subtitled slides or podcasts
- Translated course outlines and key readings
- Tutors speaking students' L1s (available online)
- Multilingual technical glossaries (online; apps)
- Multilingual writing centres
- Interpreting services, where functional and economically justifiable



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Dankie, Enkosi, Inkomu,  
Ke a leboga, Ke a leboha,  
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Thank you





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