



# Playing beyond CLIL



## Finding pieces of the Jig Saw



THE UNIVERSITY  
*of* EDINBURGH

Do Coyle



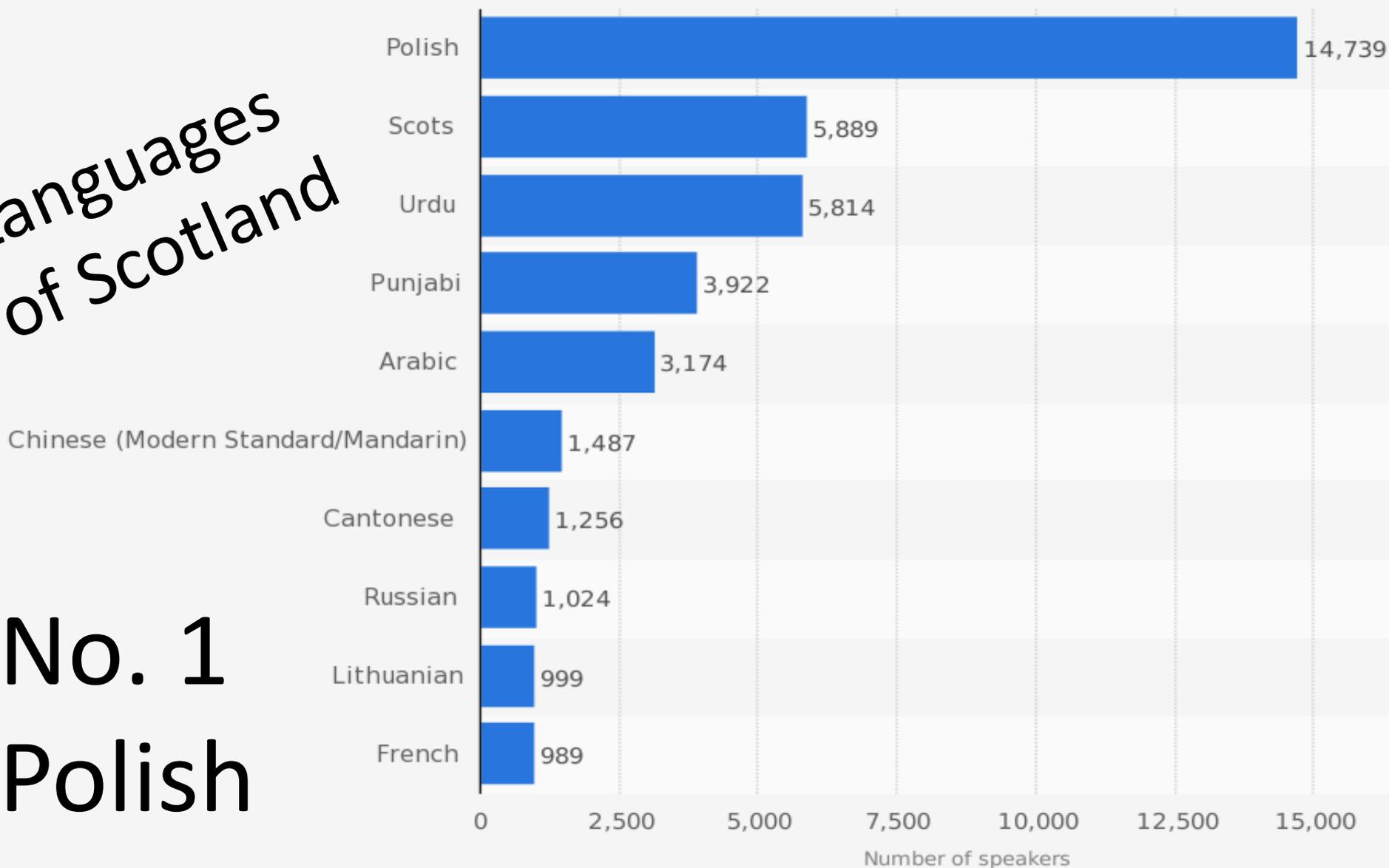


Our  
linguistic  
DNA

# Non-English main home languages ranked by number of speakers in Scottish schools in 2016

Languages of Scotland

No. 1  
Polish

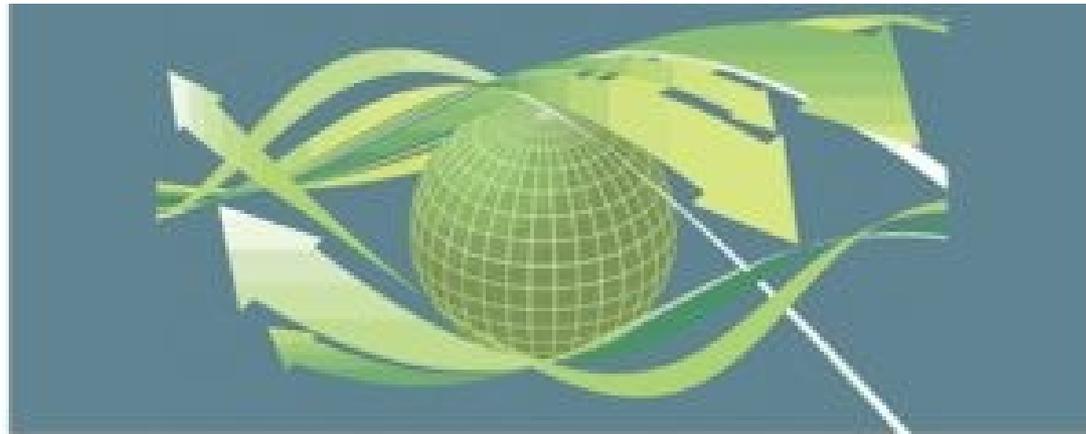


**SEALL SEO, HERMIONE**



**SGEULACHD EILE AIG AN DAILY GAEL**

**258 million people  
are living outside  
their birth country**



Verbs  
Adverbs  
Structure  
Clauses  
Teaching  
Grammar  
Sentence  
tense  
present  
past  
forms  
Simple  
break

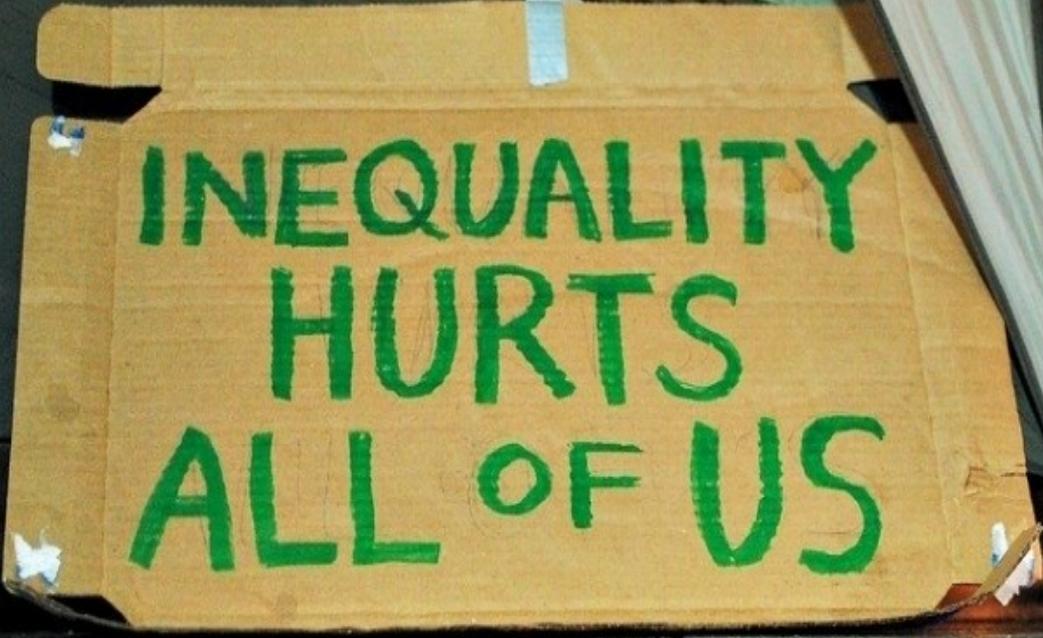
english  
questions  
prepositions  
verbs  
reported  
passives  
gerunds  
conditionals  
negative  
past  
worksheets  
nouns  
articles  
present  
interrogatives  
adverbs  
infinitives  
exercises  
genitive  
affirmative  
adjectives  
speech  
relatives  
future  
tenses

“Weel, Gruffalo,” said Moosie. “Eh hope yi’ll agree  
*Aabody* iz feart o me!

But noo meh belly’s rummlin inside me,  
An meh favrit food iz gruffalo bridie.”







INEQUALITY  
HURTS  
ALL OF US

A photograph of a protest sign made from a flattened cardboard box. The sign is propped up against a white tent structure. The text is written in green, blocky, hand-painted letters. The background is a blurred night scene with warm lights and people.

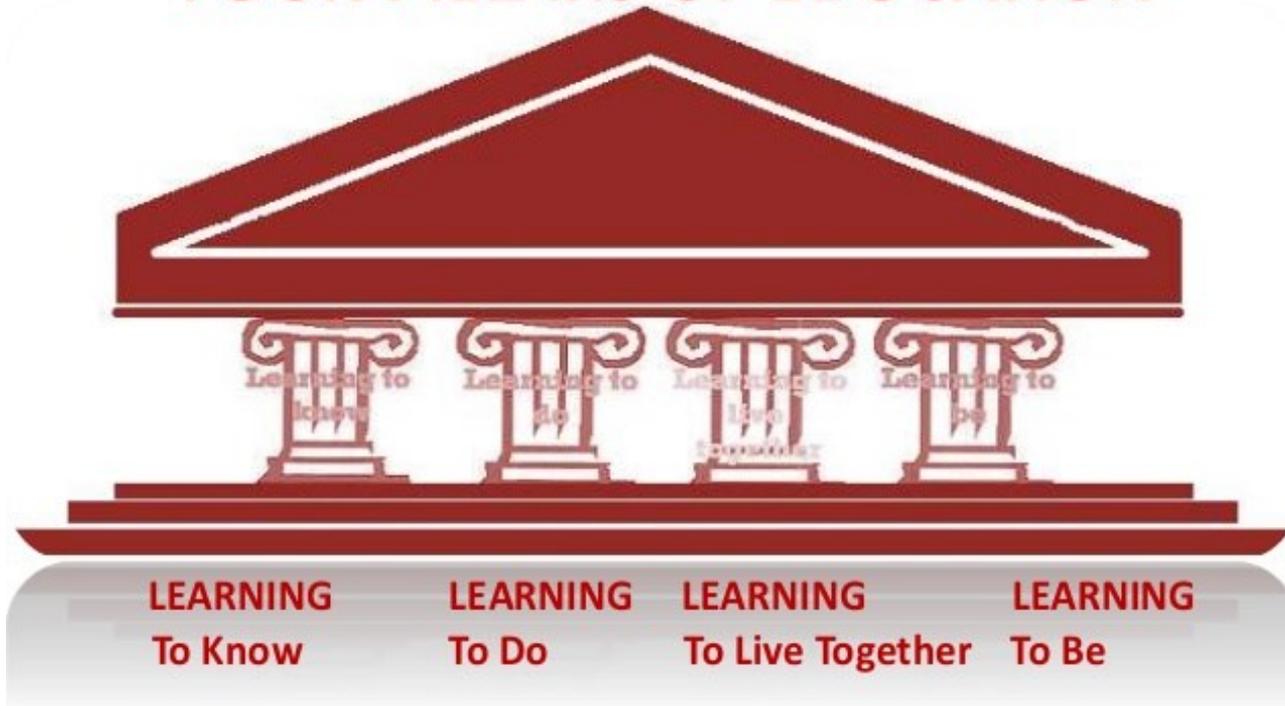
# OECD 2016 proficiency in several information-processing skills – literacy, numeracy and problem-solving in technology-rich environments

 **Why skills matter**  
FURTHER RESULTS FROM THE SURVEY OF ADULT SKILLS



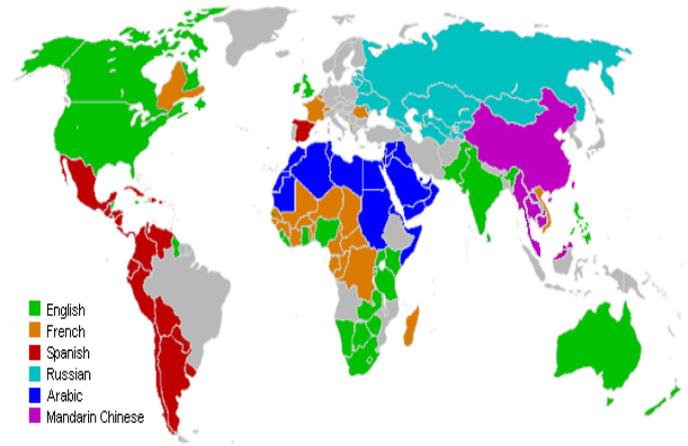
The International Commission on Education for the 21st  
Century advocates

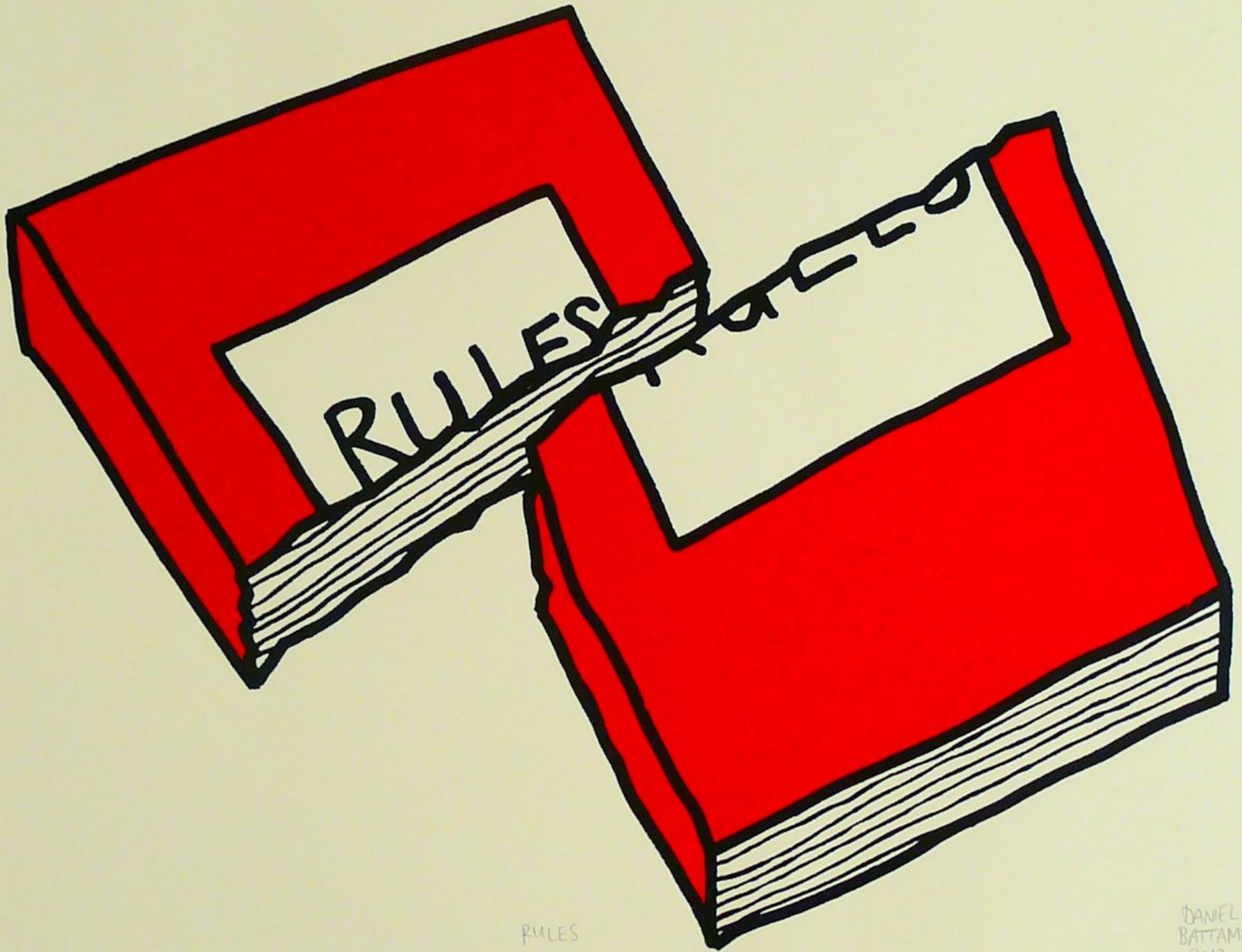
## FOUR PILLARS OF EDUCATION



# Shifts in Landscapes

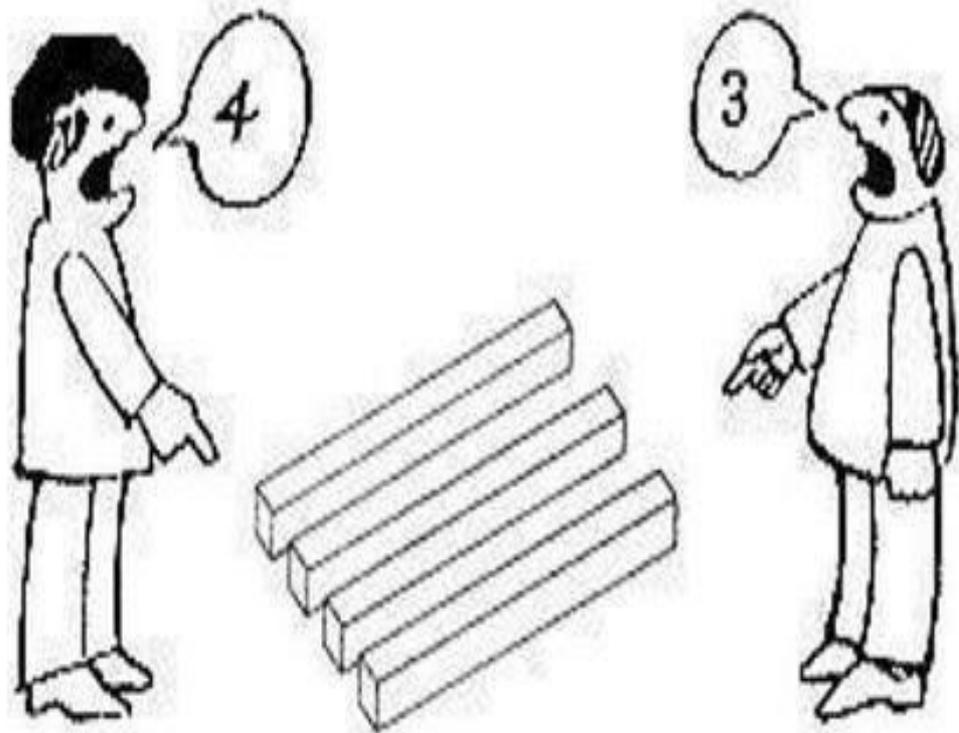
- Societal changes
- Global concerns
- Policy and political imperatives
- Unprecedented digital advancement
- Fit-for-purpose education





The world we live in  
and the classrooms we  
learn in and the learners  
and teachers who work  
together are changing. A  
good news story...





**Language  
is never  
neutral**

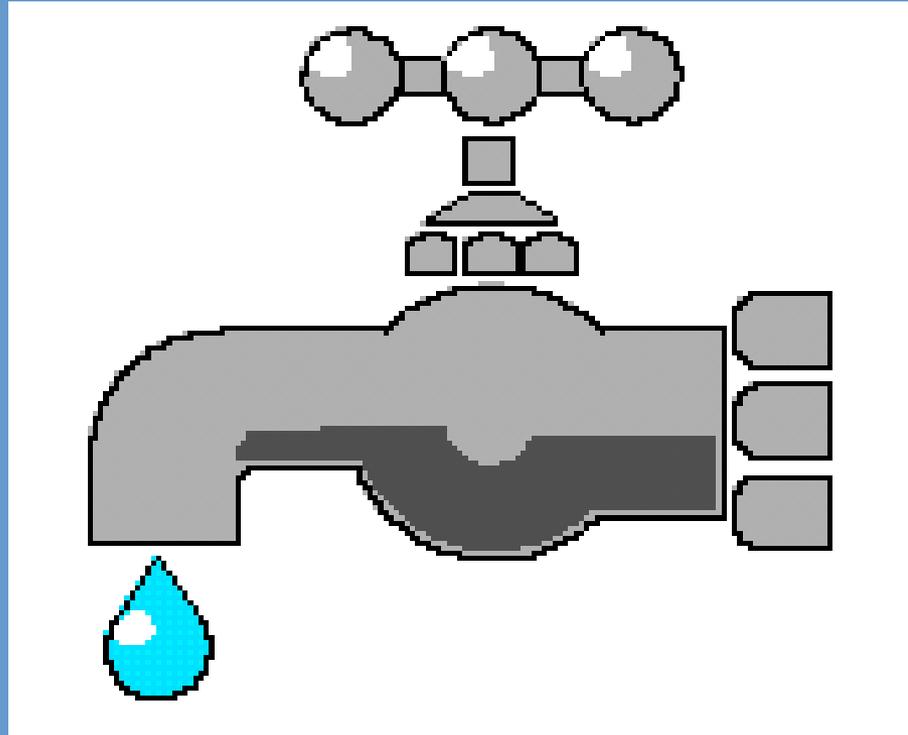






*Ceci n'est pas une pipe.*

Visual



Representation

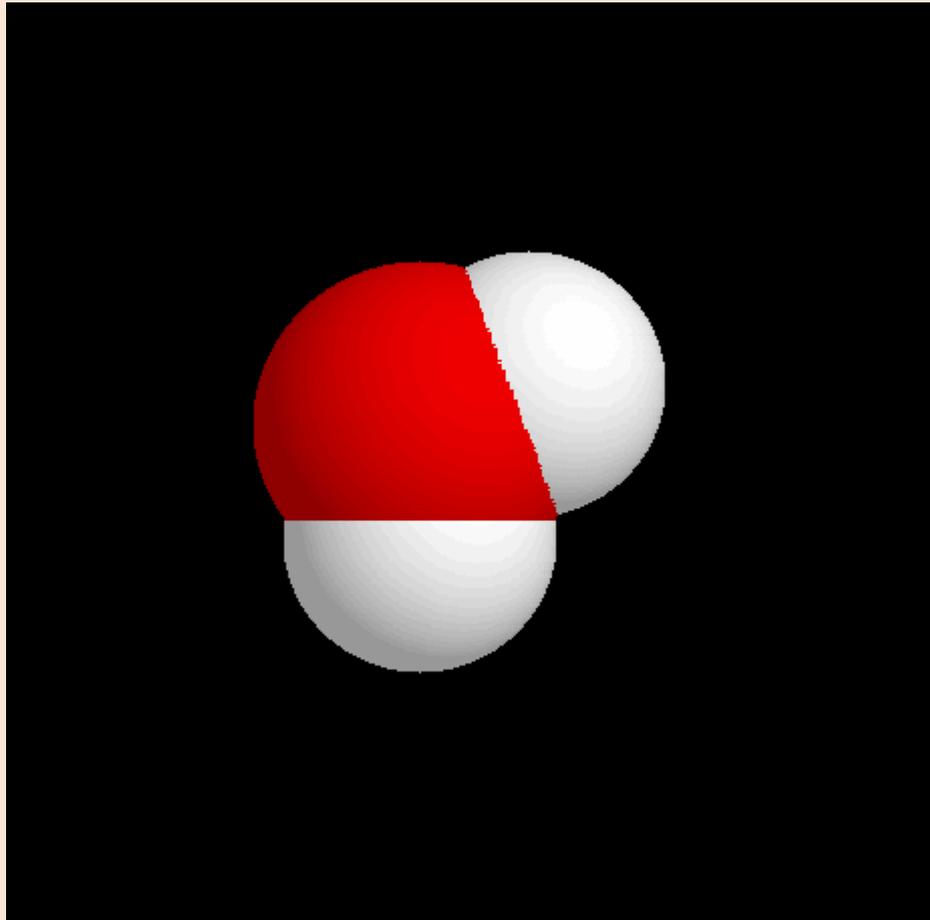
What kind of language is happening here?

What does it mean? Who can access it?



What does this represent?

What is the role of image in concept building?



# The lartey frimps krolacked blinfly in the detchy shilbor

Read the sentence above and answer the following:

- 1. What kind of frimps were they?*
- 2. What did the frimps do?*
- 3. How?*
- 4. In what kind of shilbor did they krolack?*
- 5. Which word is the subject in this sentence?*
- 6. Which is the verb?*

# The lartey frimps krolacked blinfly in the detchy shilbor

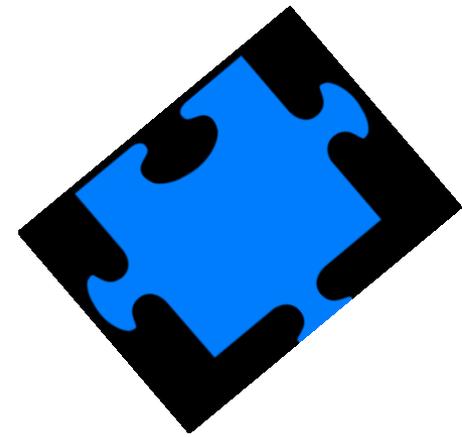
7. **Explain** why the frimps were krolacking the detchy shilbor. Be prepared to justify your claims with facts.
8. If you had to krolack in the shilbor, which one item would you **choose** to have with you and **why**?



# 10 DEFINITIONS OF LEARNING

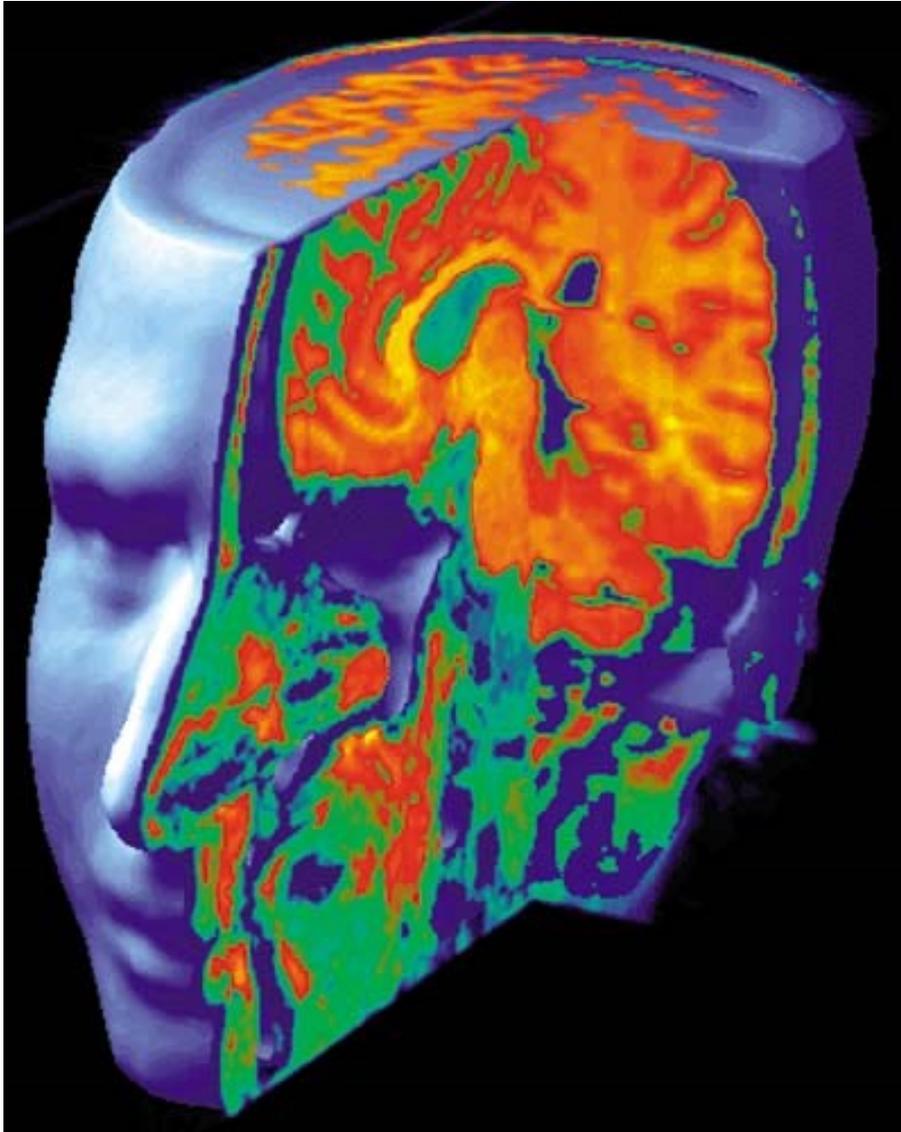


# Deeper learning



Deeper learning occurs when knowledges and understanding are internalised and automatized in ways which enable individuals to demonstrate their **own understanding** in different ways and **transfer** their learning to other contexts.....

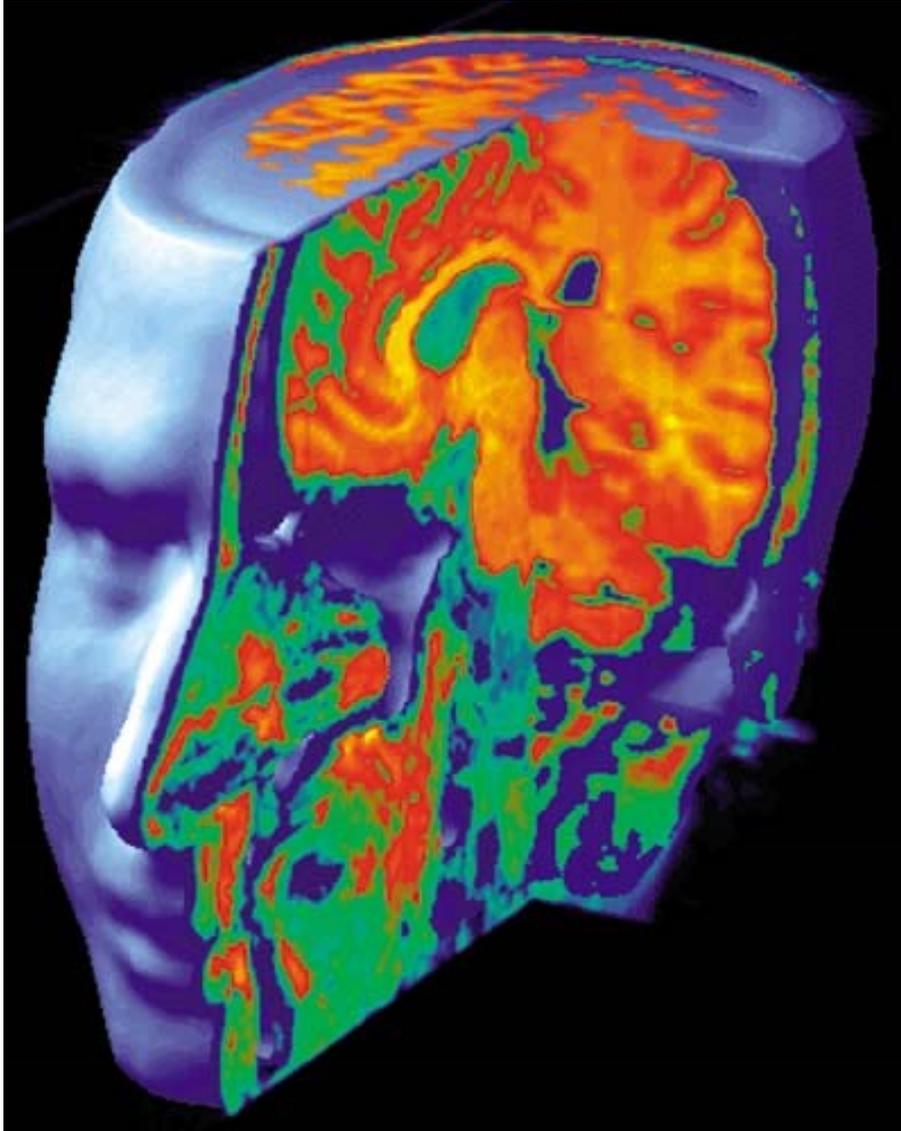
# Language as Learning Tool



**Cognitive tool**  
for constructing  
concepts

**Meta-cognitive and  
linguistic tool**  
for learning how to learn  
[always remember  
linguaging is a verb]

# Language as Learning Tool

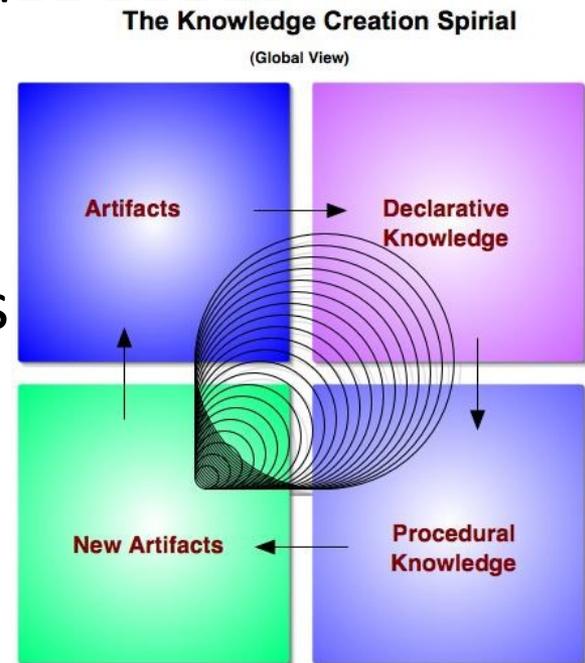


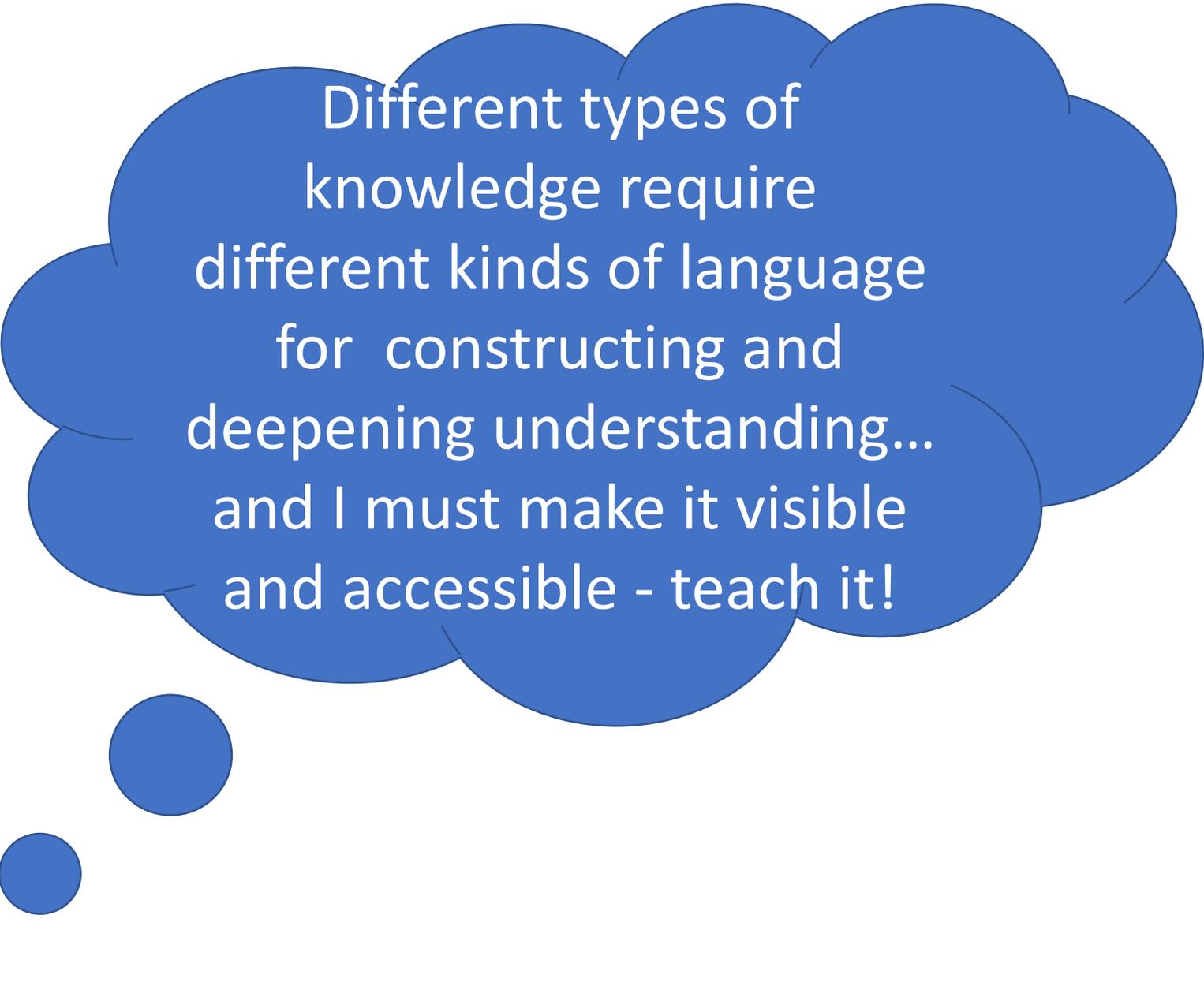
For **social connectivity** and intercultural understanding

As the **object** of learning ~ making literacies transparent, accessing languages for pluriliteracies

# Knowledge isn't just facts!

- **Factual** knowledge about
- **Conceptual** deeper knowledge about
- **Procedural** how to (applied)
- **Meta-cognitive** strategies





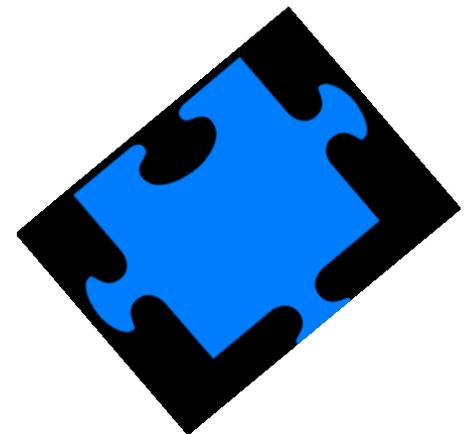
Different types of  
knowledge require  
different kinds of language  
for constructing and  
deepening understanding...  
and I must make it visible  
and accessible - teach it!

**Language is not  
about words...**

**words are  
meaningless**



To  
Language  
is a verb



# Quantum states...



[http://youtu.be/d1tn56vWU\\_g](http://youtu.be/d1tn56vWU_g)

<https://www.youtube.com/watch?v=IOYyCHGWJq4>

# Draw this concept.....

Jupiter is the largest planet in our solar system. Its mass is approximately 318 times greater than the Earth. Jupiter is so massive, you could take every other planet in the solar system and combine them all together, and the resulting body would still be only half the mass of Jupiter. Earth has an equatorial radius of 6,378.1 kilometres, whereas Jupiter has an equatorial radius of 71,492 kilometres.

Which literacies as a CLIL educator?

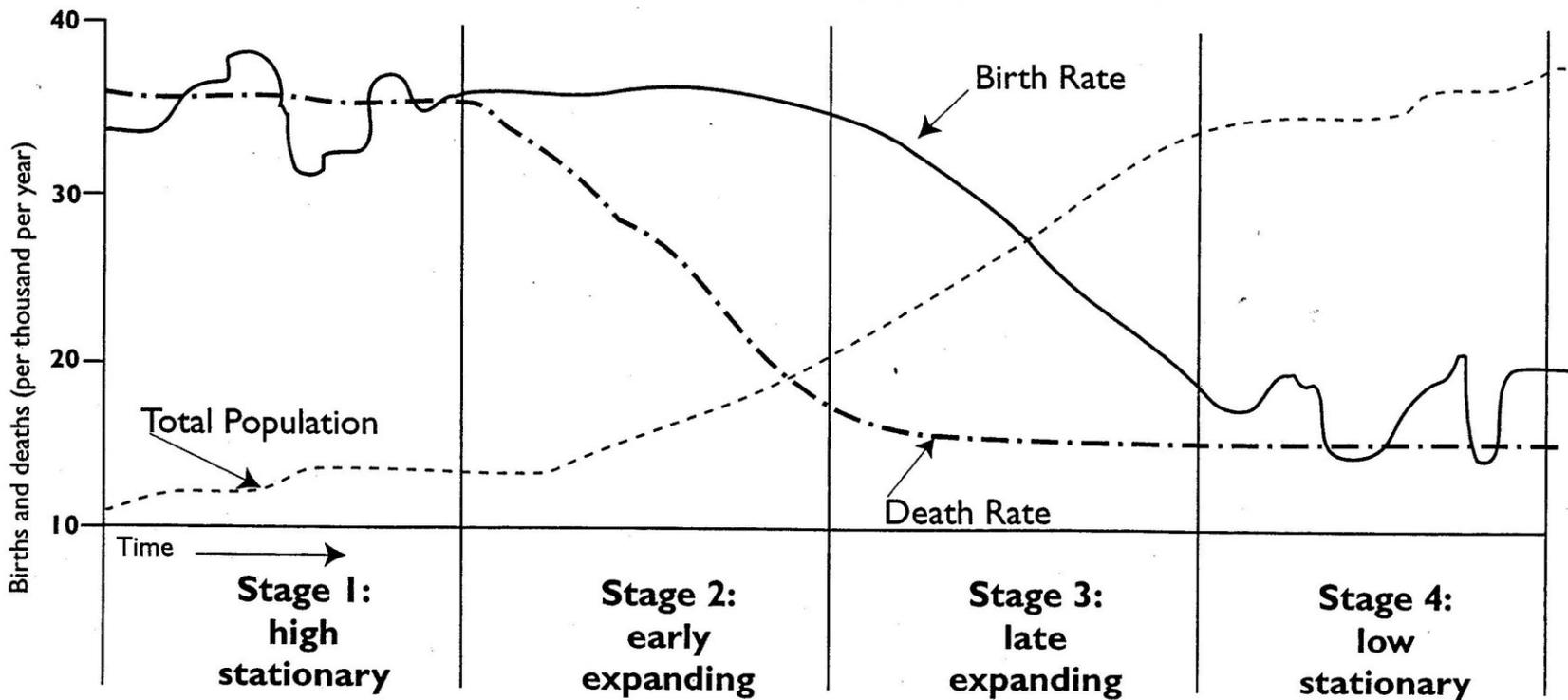
**TEXT**



## And dealing with text across languages means....

- A shift from grammatical chronological dependence
- Looking at genre, register and style
- Taking meaning-making seriously and enabling authentic creativity with language
- Understanding what deeper learning means
- Connecting with first language literacies
- Using digital means to transform materials into resources
- Using other media and modalities to explore text
- Re-thinking tasks design and sequencing

# The demographic transition model

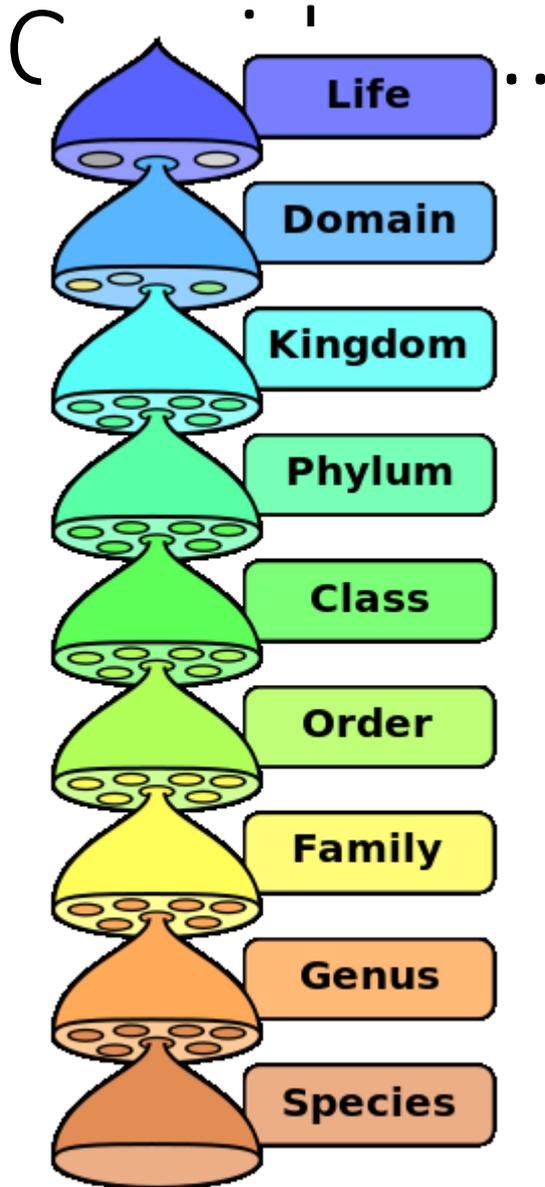


Source: Population—A Comprehensive Study, Population Concern

Living Graphs  
Exemplar 1:  
The  
demographic  
transition model

# The demographic transition model

1. More houses are built
2. Children are warmer in bed at night because they have more brothers and sisters
3. There are more golden weddings
4. Grandparents are rare
5. People are encouraged to emigrate to the colonies
6. The public health inspector sees the new sewers completed
7. A mother sobs over the grave of the last of her six children died in a typhoid epidemic
8. Fewer children share a bedroom
9. Parents are starting to think more about family planning
10. Billy White loses his job as a grave digger



Biology is not plants and animals. It is language about plants and animals... Astronomy is not planets and stars. It is a way of talking about planets and stars (Postman, 1986:3)

# Behaving like a scientist

## NRC Framework 2011

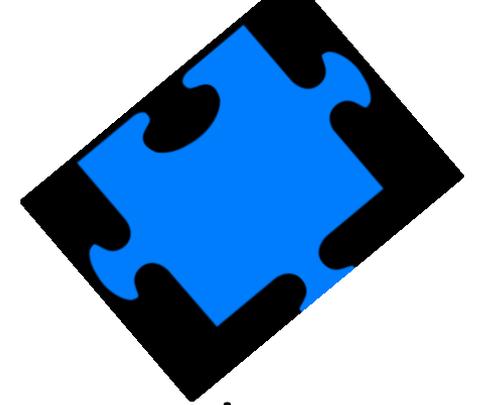
Identifying 8 science practices:

1. Asking questions and defining problems
2. Developing and using models
3. Planning and carrying out investigations
4. Analysing and interpreting data
5. Using mathematical and computation thinking
6. Constructing scientific explanations
7. Engaging in argument and discussion
8. Obtaining, evaluating and communicating information

# Meaning Making: A Knowledge Pathway through History

	<b>Text type</b>	<b>Social purpose</b>
<b>Chronicling history</b>	Autobiographical recount	To retell the events of your own life
	Biographical recount	To retell the events of a person's life
	Historical recount	To retell events in the past, not necessarily of a person
<b>Reporting history</b>	Descriptive report	To give information about the way things are or were
	Taxonomic report	To organise knowledge into taxonomy
	Historical account	To account for why events happened in a particular sequence
<b>Explaining history</b>	Factorial explanation	To explain the reasons or factors that contribute to a particular outcome
	Consequential explanation	To explain the effects or consequences of a situation
<b>Arguing history</b>	Analytical exposition	To put forward a point of view
	Analytical discussion	To argue the case from two or more points of view
	Challenge	To argue against a view

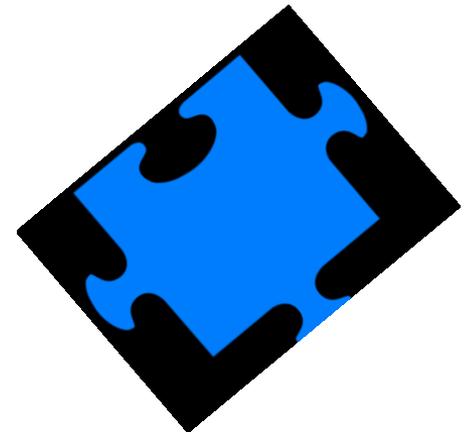
# Read this!



Subject-specific literacies develop with a growing ability to express or verbalize thematic, subject specific concepts or conceptual knowledge in an appropriate style using the appropriate genre and genre moves for the specific purpose of communication. This process is languaging i.e. using language(s) to mediate increasingly cognitively complex acts of thinking and understanding i.e. “the process of making meaning and shaping knowledge and experience through language” (Swain, 2006).



To  
Language  
is a verb



# The Language Triptych

Language **of** learning



Foreign Language  
Learning and Using

Language **for** learning

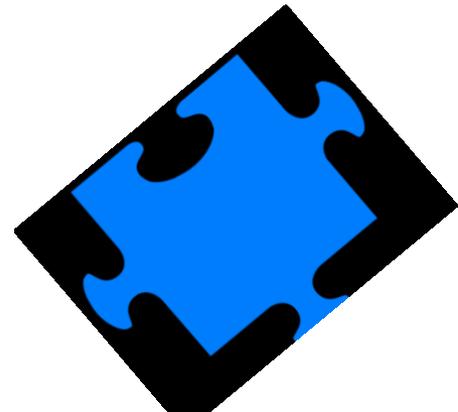
Language **through** learning



# Subject Literacies

- Subject literacy *involves the use of reading, reasoning, investigating, speaking and writing required to learn and form complex content knowledge appropriate to a particular discipline.*
- Subject literacy is interpreted as *a path towards critical thinking and knowledge application as well as towards social participation*

McConachie (2010: 16)



# Subject-specific Literacies

## a new emphasis

- Shanahan & Shanahan (2011) reject the idea that basic reading skills automatically evolve into more advanced skills over time. Instead, they make a case for transparently teaching disciplinary literacies which high-light the differences in the language. This draws attention to tools used by experts in those disciplines to construct and communicate knowledge and in the ways that individual disciplines construct and interpret the texts

# Subject-specific Literacies

## a new emphasis

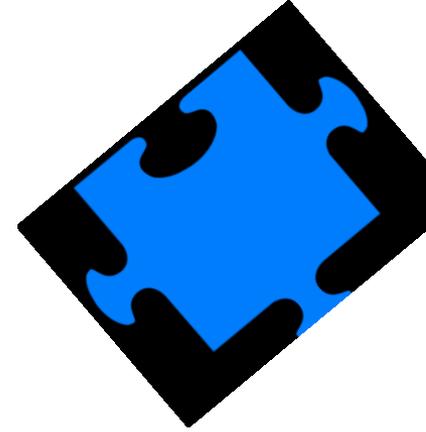
These ideas challenge widely held assumptions about how we build knowledge and how we develop problem-solving skills. They refute the following notions:

- that knowledge can be accessed and constructed through a set of generic skills;
- that learning is quasi-independent of the underlying subject matter;
- that such skills can automatically transfer across different tasks and content areas and
- that they will enable learners to solve whatever set of problems they may encounter in the future lives.

# Importance of visibility

- Academic literacy must be made visible across all sectors of learning, which relates directly to subject learning. The teaching of academic literacy to all learners especially those in multilingual contexts relating to school subjects is essential. It is very different from everyday language
- The continuum from everyday spoken language to highly specific subject-specific written language
- How can we teach a subject without making academic literacy explicit?

(Gibbons 2018)

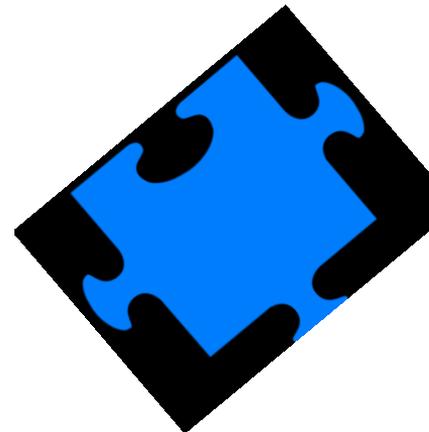


**Academic  
Language is  
nobody's mother  
tongue**



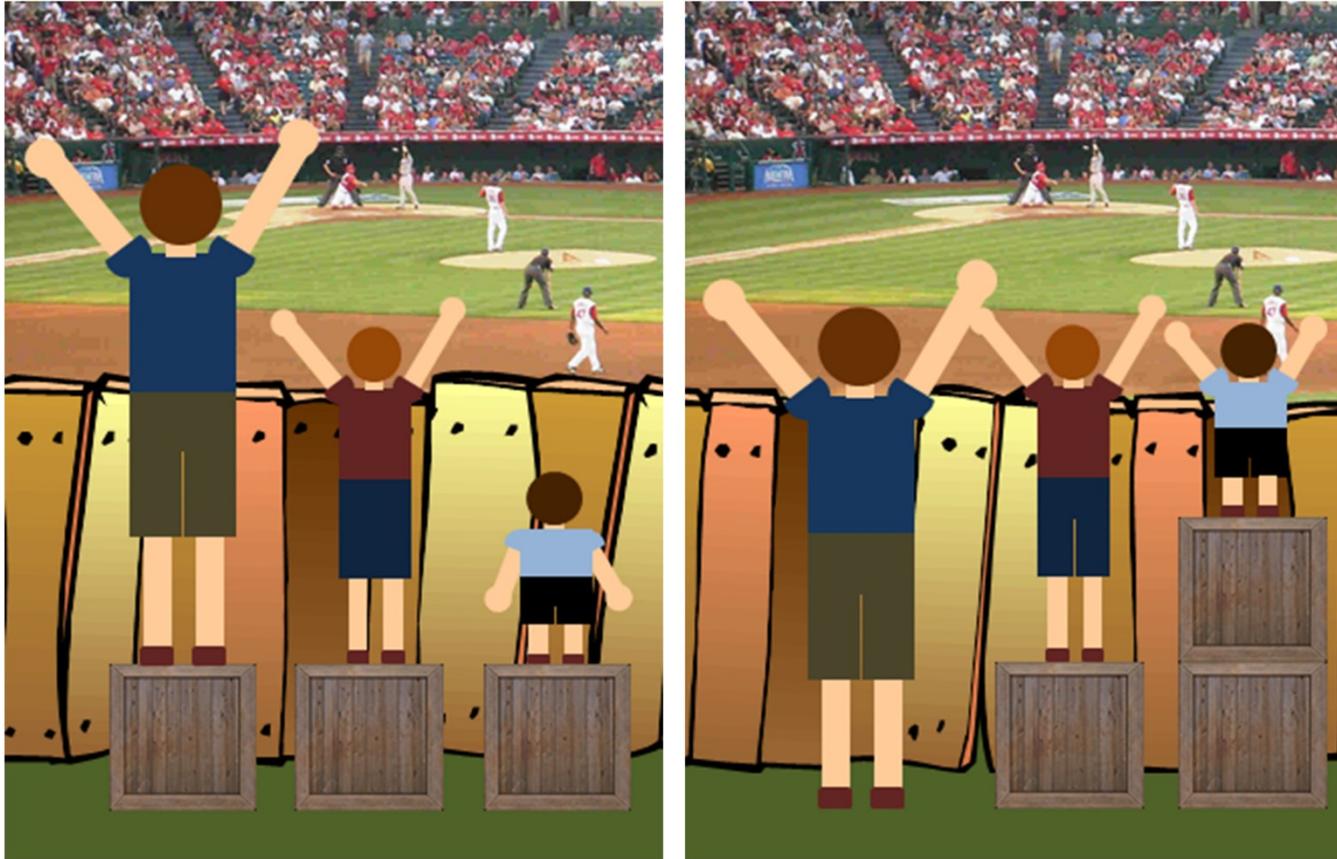
Explicit teaching and learning of academic subject literacies for all learners is a *leveller*, *enabler*. It provides access to deeper learning regardless of the background of individuals.

Get languaging!



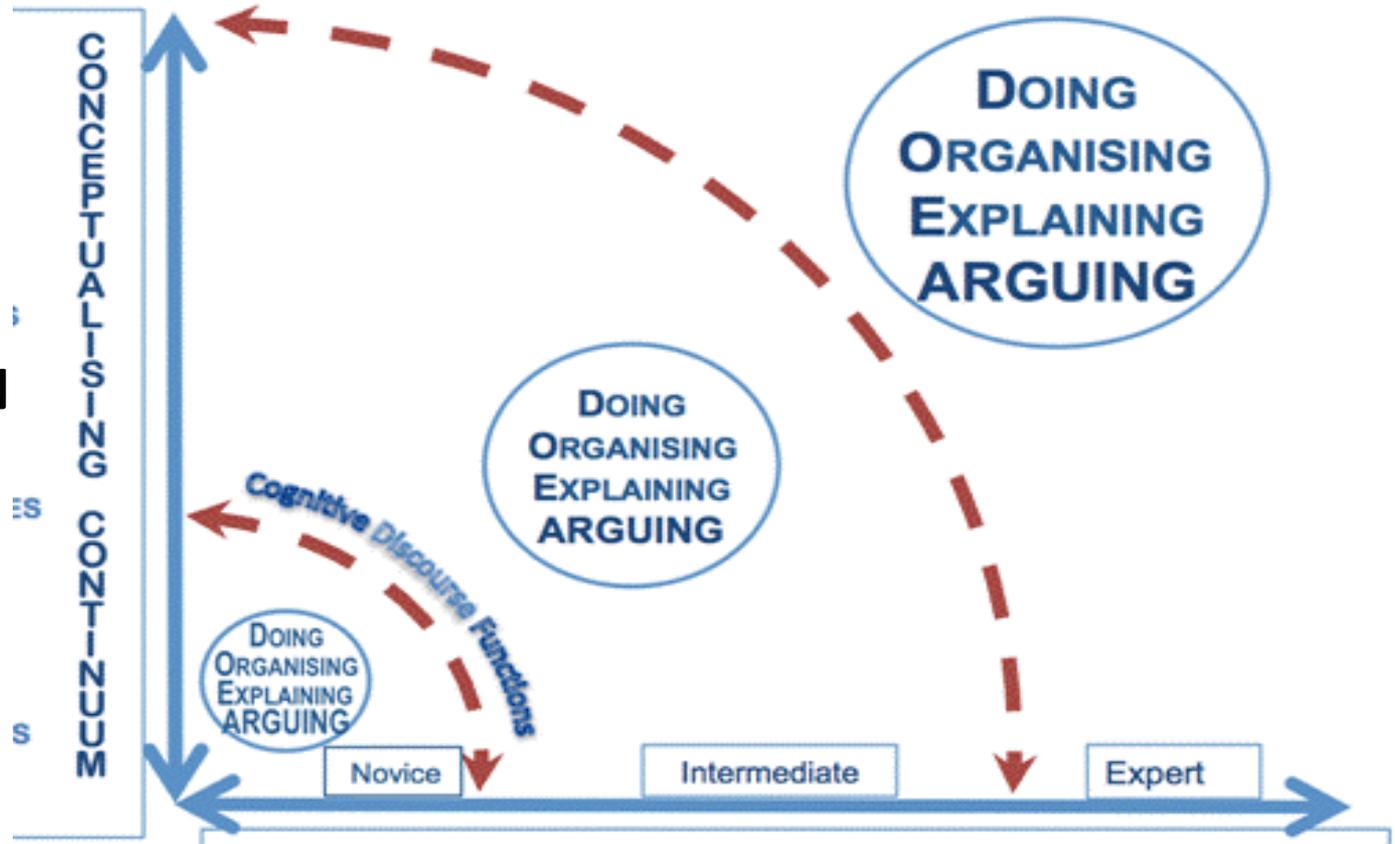
# (Language)

## Literacies as a Leveller



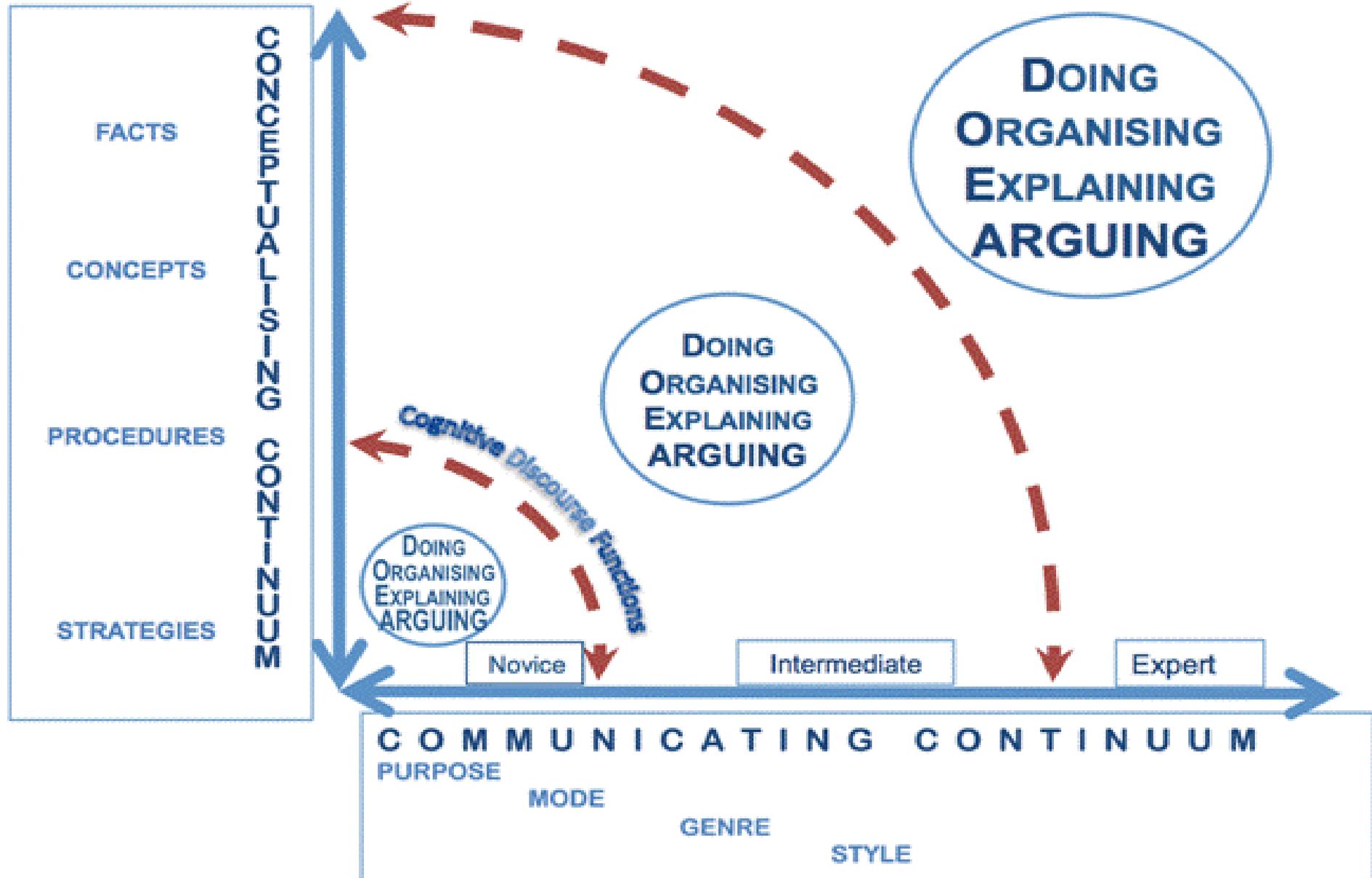
# Mapping Pluriliteracies development

(subject)  
**KNOWLEDGE  
CONSTRUCTION**



**LANGUAGE PROGRESSION  
L2 AND L1**

# Mapping Pluriliteracies Development



# Maximizing Meaning Making Knowledge Pathways

**'doing** science'

(procedure, procedural recount)



**'organizing** scientific information'

(descriptive and taxonomic reports)



**'explaining** science'

(sequential, causal, theoretical, factorial, consequential explanation & exploration)



**'arguing** science'

(exposition and discussion, criticality)

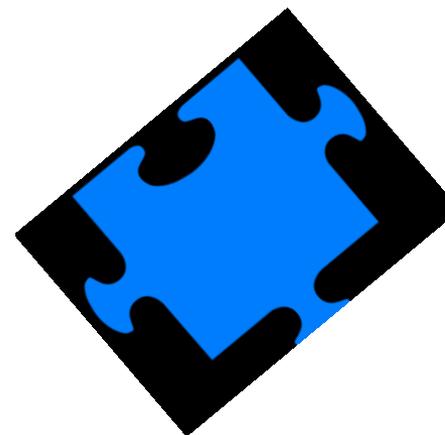
(Veel 1997)

# So what does this mean for us?

Planning for four major pupil activity domains along the knowledge continuum – all of which have different literacy demands:

1. **Doing**/enabling the subject (Science, Drama)
2. **Organising** and **documenting** it
3. **Explaining** understanding to others
4. **Critiquing** (arguing, discussing, justifying)

.....which can be expressed in different ways



KNOWLEDGE AND ACTIVITY DOMAINS IN SCHOOL SCIENCE	SPECIFIC GENRES	PURPOSES
<b>Doing science</b>	1 Procedure 2 Practical report	1 instructs someone in how to make or do things 2 provides a recount of the method undertaken in an experiment, as well as the results and the conclusions
<b>Organising scientific information</b>	Reports 1 descriptive 2 taxonomic	1 describes features of places or physical phenomena 2 describes different kinds of physical features
<b>Explaining events scientifically</b>	Explanations 1 sequential 2 causal 3 factorial 4 consequential 5 theoretical	1 explains a physical phenomenon by presenting the events producing the phenomenon in chronological order 2 explains the sequence of an event or phenomenon with reasons included 3 explains the multiple factors that contribute to a particular event or phenomenon 4 explains the effects or consequences of a particular event or phenomenon 5 a theoretical explanation illustrates a theoretical principle
<b>Arguing aspects of science</b>	Expository genres 1 argument – analytical argument – hortatory argument 2 discussion	1 analytical arguments present on an issue in order to persuade the reader/listener to agree with a particular point of view. Hortatory arguments both present and try to persuade the reader/listener to take some action 2 presents the case for more than one point of view about an issue

# Starting point:

Identify cognitive discourse functions and language patterns

Naming

Sequencing

Describing

Sorting from known criteria

Asking questions

Comparing and contrasting

Classifying

Explaining

Hypothesising

Generalising

Reasoning

Problem solving

Analysing

Ranking

Evaluating

*Its not just about new vocabulary*

# Consequences of absent discourse

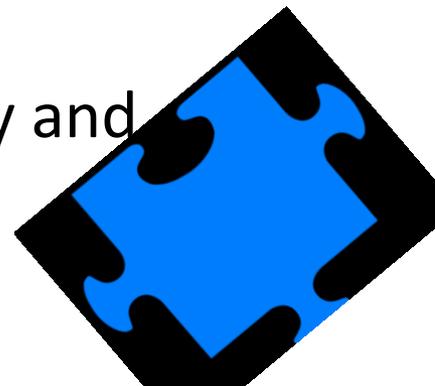
Considering the fact that teaching subject specific concepts and their respective meaning extension is a central aspect of content teaching, definitions are a surprisingly infrequent phenomenon in the data. In 17 out of 43 lessons (40%) no instances of defining could be identified.

It may be unsurprising that the lexemes 'definition' or 'define' do not occur at all in the entire corpus. And since the genre is not even named, it is equally unsurprising that there is no meta-talk about it. The written materials used during the lessons did not contain any definitions ..... written definitions can also be dismissed.

Dalton-Puffer, 2004:32

# Dynamic Assessment

- The basic premise of dynamic assessment is that it is important to assess students' potential to learn rather than measure what they have just done
- As well as being a way to offer direct support to the learner, dynamic assessment can inform the teacher about topics and skills that many students are finding difficult and so help the process of re-designing and improving the teaching.
- It can also motivate learners to reflect on their learning journeys and decide on which skills they need to improve. It is particularly valuable for developing skills of reasoning, problem-solving, decision making, leadership, creativity and literacy



# Austin's Butterfly



<https://www.youtube.com/watch?v=hqh1MRWZjms>

# Revisiting Key Ideas

## Language at the core of curriculum

- Language is a **thinking** tool (cognitive)
- Language enables us to **construct knowledge** and **make meaning** (semiotics)
- Language as a **mediating** tool (socio-cultural, scaffold our own and others' learning)
- Language is a **communication** tool (talk)
- Language enables us to **articulate our thinking** with ourselves and others (dialogic, co-construction)
- Language **shapes the way we think** (cultural capital)
- Language enables us to talk and talking for learning involves developing strategies and techniques for creating and co-constructing **dialogic teaching and learning**.

# Let's Talk Together

The background features a central white starburst shape with several green rays extending outwards. Below the rays, there is a cluster of colorful circles in shades of yellow, orange, red, and green.

Argumentation and dialogue are not simply  
alternative patterns of communication; they are  
principled approaches to pedagogy  
(Wolfe, 2008)

# Pluriliteracies Approach

1. Be language aware not only of your learners but of yourself (linguistically and culturally)
2. Be language aware of the specific literacy demands of your topics/subject discipline (cognitively, culturally and communicatively)
3. Be inclusive -different topics/disciplines have very different cultures, very different discourses which become increasingly nuanced i.e. progression....  
My awareness, my planning!

# Pluriliteracies Approach

4. Be spatially aware.....how does the physical, cognitive and social environment YOU create with your learners impact on learning?
5. Be aware of the role spatial, visual and kinaesthetic literacies play in your classroom ecology

# What is a pluriliterate learner?

A pluriliterate learner is one who has understanding of how their learning happens, how language makes thinking and learning work through experiencing culturally-aware meaning-making, problem-solving, and being creative in more than one language – a right for **all** learners – whatever age, whatever stage.

# Why SWYK is so important?

**Languaging** happens when learners express their understanding of (subject-related) concepts in their own words (and in different modes) without simply repeating teacher or textbook language. Enabling *languaging* by gradually increasing the sophistication of appropriate styles, registers and genres, enables both teachers and learners to monitor learner and the quest for deeper learning. In a CLIL context, learners are explicitly provided with tools to language in more than one language.

**Show What You Know** happens when learners are encouraged to creatively use a games-based approach to demonstrate their understanding. This can take the form of *languaging* in different modes. It can also take the form of visual representations, movement and embodied learning. This is why SWYK is at the core of PbC. It can be argued that it is a more **inclusive** way of encouraging **all** learners whatever their age, stage and language competence to self-assess, express their meaning-making and demonstrate their understanding in alternative ways to more traditional forms of assessment.

# Design Principles [1]

Theories and principles for developing a Pluriliteracies and games-based approach to CLIL. These principles, which guide practice-based approaches to dynamic formative assessment using SWYK:

- are embedded in *subject disciplines or thematic strands*
- promote *linguaging* for understanding
- promote *thinking skills* for language using/arguing/
- promote *personal growth* – learning ecologies
- promote *pluriliteracies and games-based* approaches
- promote tasks which take account of Prior Learning Positioning Stimulus Scaffolding
- are *inclusive* and take account of all learners
- promote the design of *Learning Events* which involve creative tasks design and sequencing leading to specific **Focus Tasks** (games-based)
- SWYK will be known as the Focus Task since learners demonstrate their learning in a range of modes, media and languages

# Design principles [2]

- **Learning conversations** are fundamental to the learning space (i.e. where learners and their teachers discuss not only the subject of their learning (new knowledge, skills etc) but how they are learning and what works for them (mentoring learning)).

If the learning ethos is one of growth and transparency, learners have to be involved in co-constructing the learning environment. One such example – the co-construction of rubrics which will be used for their own assessment (guided by the teacher). Such criteria have to be owned by the learners and the teachers

- Learning conversations are therefore embedded in all learning events.

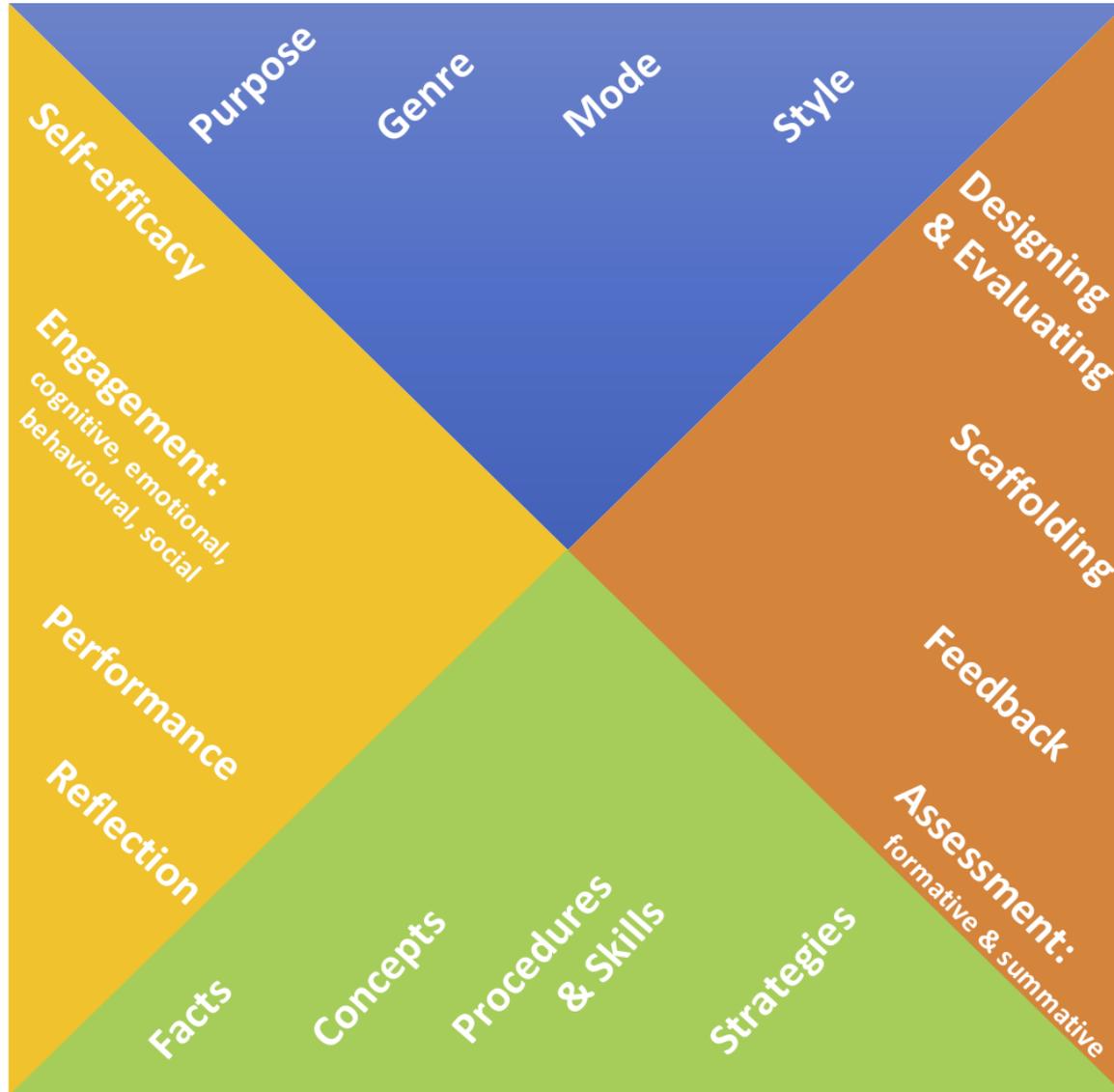
Question: how can learners be prepared to engage in these Learning Conversations?

Recommended read: Fullan and Langworthy *A Rich Seam* (2014)

[https://www.michaelfullan.ca/wp-content/uploads/2014/01/3897.Rich\\_Seam\\_web.pdf](https://www.michaelfullan.ca/wp-content/uploads/2014/01/3897.Rich_Seam_web.pdf)

COMMUNICATING CONTINUUM

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CONCEPTUALISING CONTINUUM

**PbC Framework for designing Learning Events  
mentoring learning & inclusive games-based classroom  
practices**

**1. Subject, theme  
or topic**

✓ **Check out**

**7. Interweaving tasks  
for progression &  
SWYK**

**2. Pluriliteracies  
principles (including  
games-based learning)  
and dynamic  
assessment**

**Deeper learning  
*PbC*  
reflections on  
assessing  
learning**

**6. Language/s  
of, for and  
through learning**

**3. Selecting the  
Focus Task  
(FT)**

**Dynamic Assessment  
Summative/formative  
Focus task: SWYK**

**4. Knowledge  
pathways linking  
concepts and  
tasks**

**5. Other task  
design &  
sequencing  
ending with FT**

**Creating ecological spaces**

Learning  
Conversations

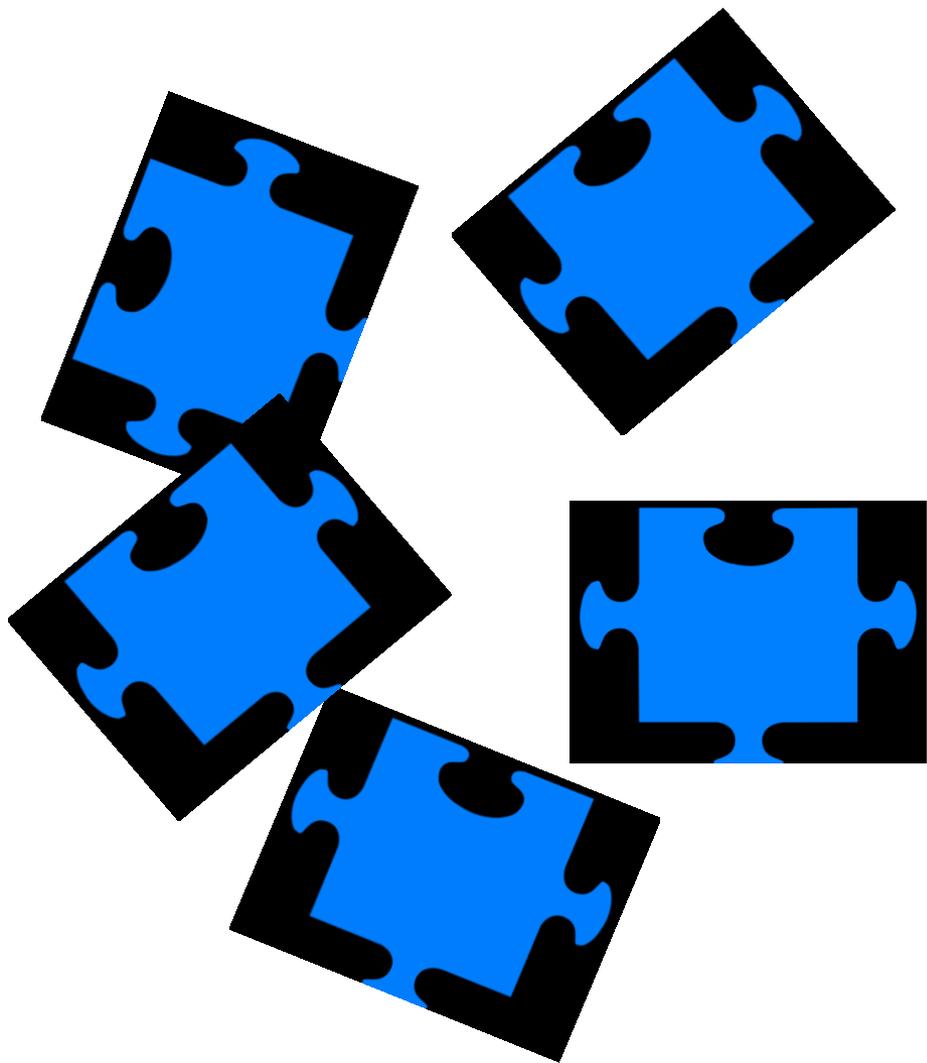
Learning  
Conversations

Learning  
Conversations

Learning  
Conversations





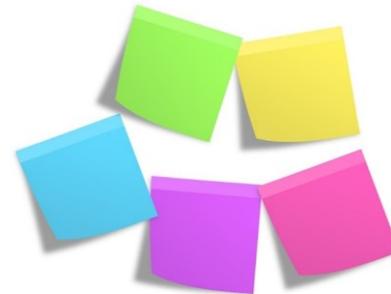
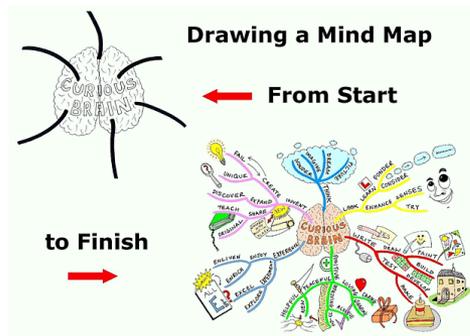
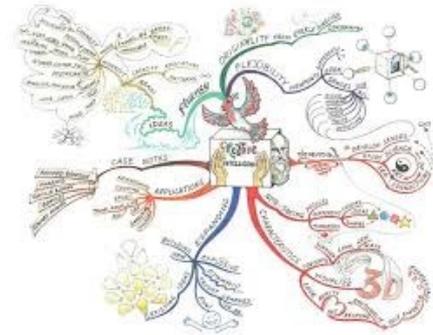
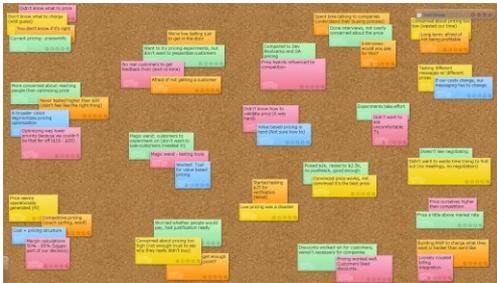


The image features a complex, purple, fractal-like snowflake pattern. The pattern is composed of many smaller, similar shapes, creating a dense, intricate design. A diagonal orange banner with a slight gradient is overlaid across the center of the image. The banner contains the text "The Infinity Jig Saw" in a bold, black, sans-serif font. The background is plain white.

# The Infinity Jig Saw

# Where next?

Create your own design maps for a Learning Event





Thank you  
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# Transformative Learning

- Learning through growing: critical reflection; professional relationships; and professional activism (Burns 2009, Mezirow, 2000).
- Activist teachers are committed to social justice and seeking to address diversity through creative ways of enabling learners to access deeper learning
- Transformative Learning involves complex cognitive processes (Harris, Moore and Farrow, 2008)
- Transformative learning is about who we are