



Teaching with the brain in mind – Learning styles

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Before looking at some characteristics of a learner...

Difficulties in research on learner characteristics and SLA:

A learner's language proficiency can be defined and measured in many ways (e.g. ***CALP** vs. **BICS**). That is, there are many ways to define the "success" of language learning.

*Note: **CALP** – cognitive/academic language proficiency
BICS – basic interpersonal communicative skills



and...

It is **not possible** to directly observe and **measure** qualities such as motivation, personality, aptitude, and intelligence. They are just **labels** of behaviours.

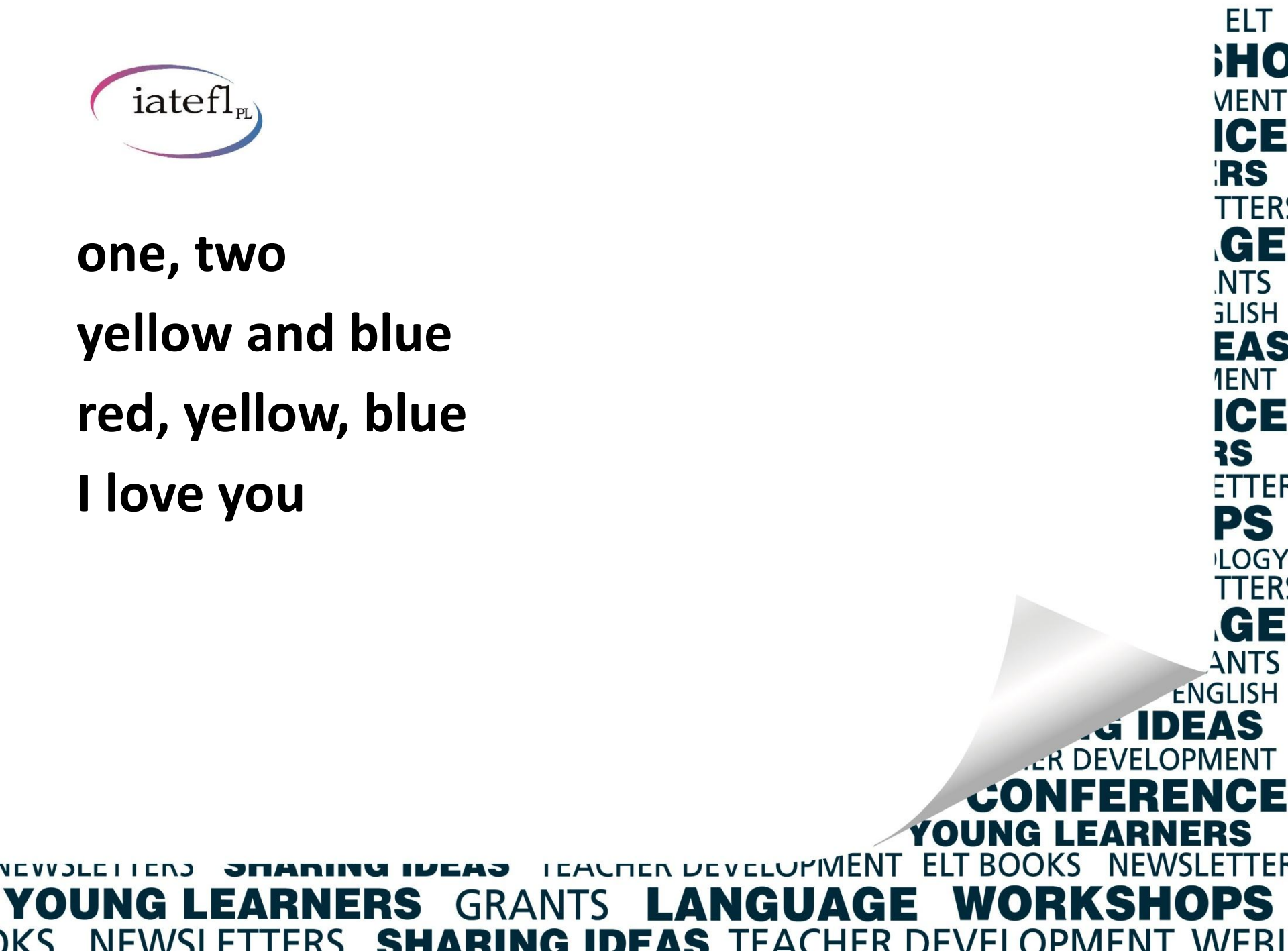


These psychological variables are often **not independent of one another**. Researchers may use the same labels to describe different sets of behavioral traits.

A **correlation** of two factors does **not** mean that there is a **causal relationship** between them. That is, the fact that two things tend to occur together does not necessarily mean that one caused the other.



one, two
yellow and blue
red, yellow, blue
I love you







Learning style (learning preferences) :

An individual's natural, habitual, and preferred way of absorbing, processing, and retaining new information and skills (Reid 1995).

Types of learning styles related to L2 learning:

– Perceptual learning styles:

visual, aural/auditory, and haptic (kinesthetic & tactile)

– Cognitive learning styles:

1) field-independence vs. field-dependence

2) reflectivity vs. impulsivity

3) right-brain dominance vs. left-brain dominance

4) tolerance of ambiguity

- 
- Field independence:

The ability to perceive a particular item in a field of distracting items. In general psychological terms field refers to a set of thoughts, ideas or feelings

- Field dependence (FD) = Field sensitivity

It depends on the total field, so the parts are not easily perceived. Field sensitivity carries a positive connotation

Cognitive learning styles

field-independence vs. field-dependence

Field independent (FI) learners pick out hidden figures in a complicated drawing more quickly. They tend to **perceive elements independently** of a context or field and focus on **details**. They are more **analytical**.



Field dependent (FD) learners are more inclined to see the whole drawing and have difficulty separating it into parts. They tend to perceive the whole field or situation and focus on general meaning. They are more relational



Research findings:

FI is related to classroom language learning that involves analysis, attention to details, and mastering of exercise, drills, and other focused activities (**CALP**).

FD is related to the communicative aspects of language learning that require social outreach, empathy, perception of other people, and communicative skills (**BICS**).



FI/FD may also prove to be a valuable tool for differentiating **child** and **adult** language acquisition due to the fact that **FI** increases as a child matures to adulthood.



Characteristics of FI people

- more independent
- competitive and
- self-confident





Characteristics of FD people

- more socialized
- derive their self-identity from people around
- more empathic and perceptive of the feelings and thoughts of others



Cognitive learning styles

reflectivity vs. impulsivity

Reflective learners tend to make a slower, more calculated decision. They are usually more **systematic** and more **cautious** in learning L2.



Impulsive learners tend to make a quick or gambling guess at an answer to a problem. They are usually more **intuitive** and more **willing to take risks** in learning L2.

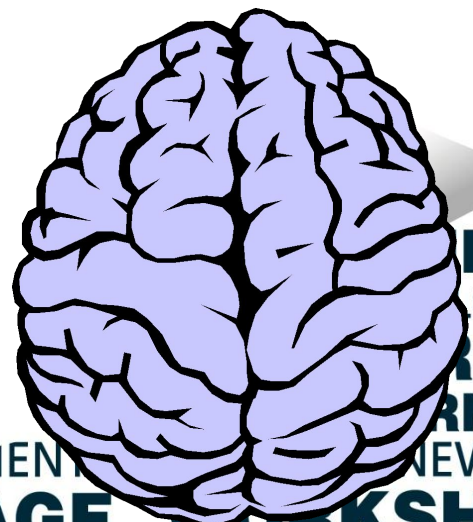


Cognitive learning styles

right-brain vs. left-brain dominance

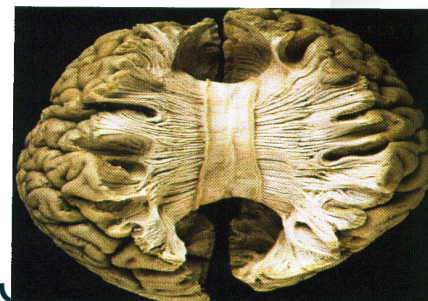
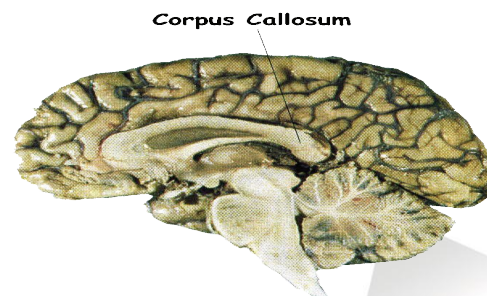
Hemispheres

- Each side of the brain is one hemisphere.
- Each hemisphere specializes in certain behaviour & cognitive abilities
- e.g., language is mainly in the left hemisphere



Corpus Callosum

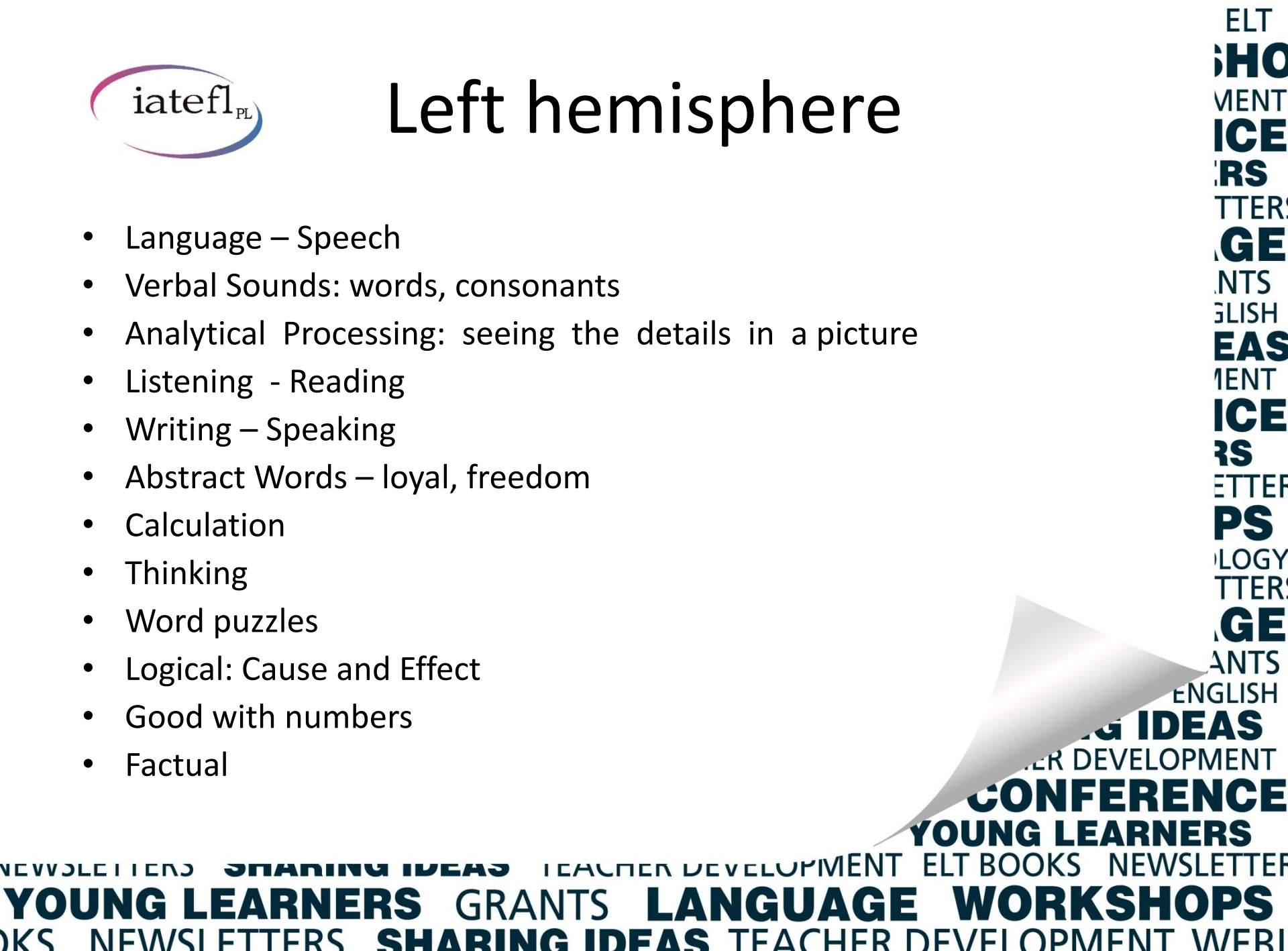
Set of axons which allow the 2 hemispheres to exchange information





Left hemisphere

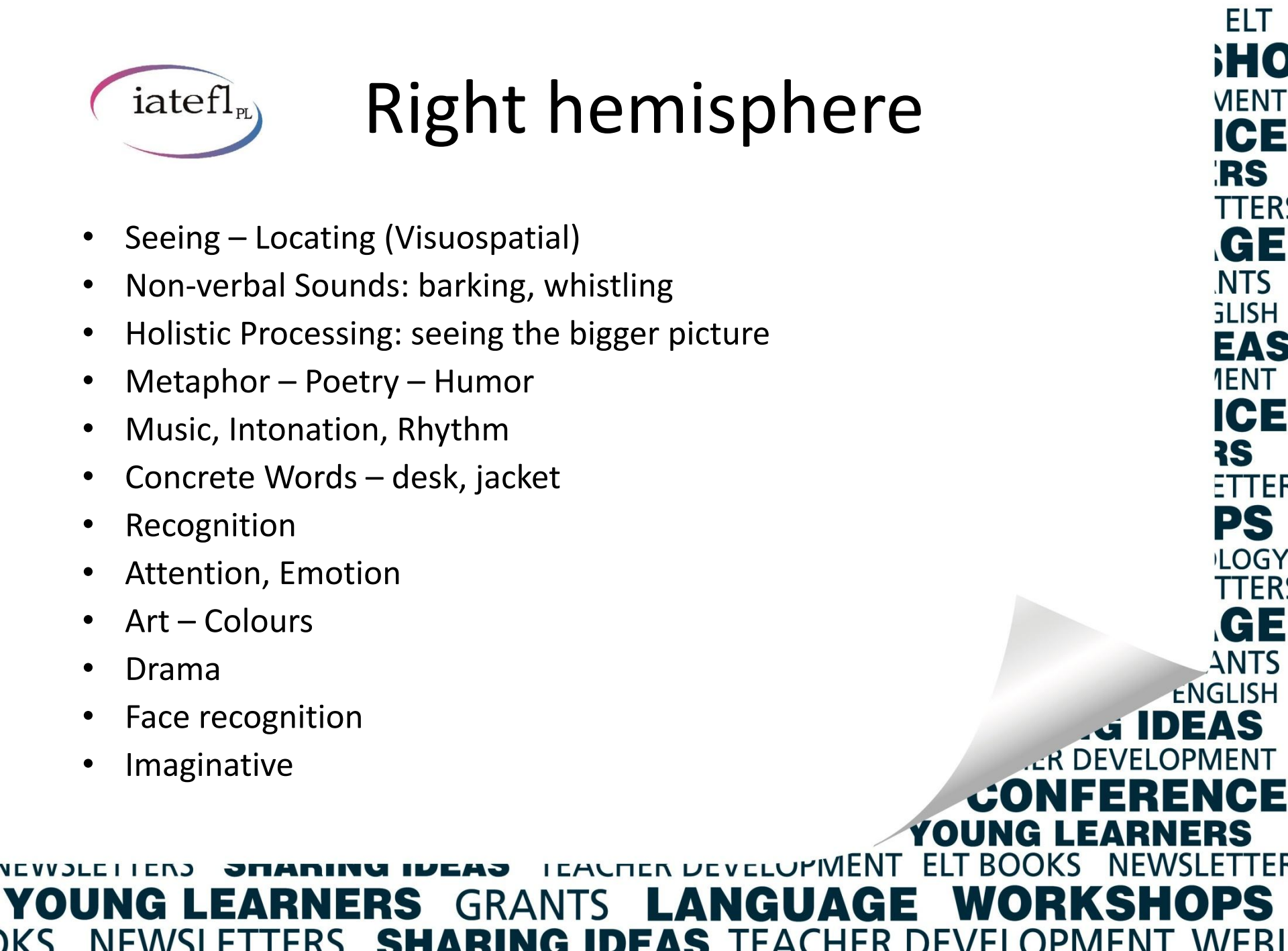
- Language – Speech
- Verbal Sounds: words, consonants
- Analytical Processing: seeing the details in a picture
- Listening - Reading
- Writing – Speaking
- Abstract Words – loyal, freedom
- Calculation
- Thinking
- Word puzzles
- Logical: Cause and Effect
- Good with numbers
- Factual





Right hemisphere

- Seeing – Locating (Visuospatial)
- Non-verbal Sounds: barking, whistling
- Holistic Processing: seeing the bigger picture
- Metaphor – Poetry – Humor
- Music, Intonation, Rhythm
- Concrete Words – desk, jacket
- Recognition
- Attention, Emotion
- Art – Colours
- Drama
- Face recognition
- Imaginative





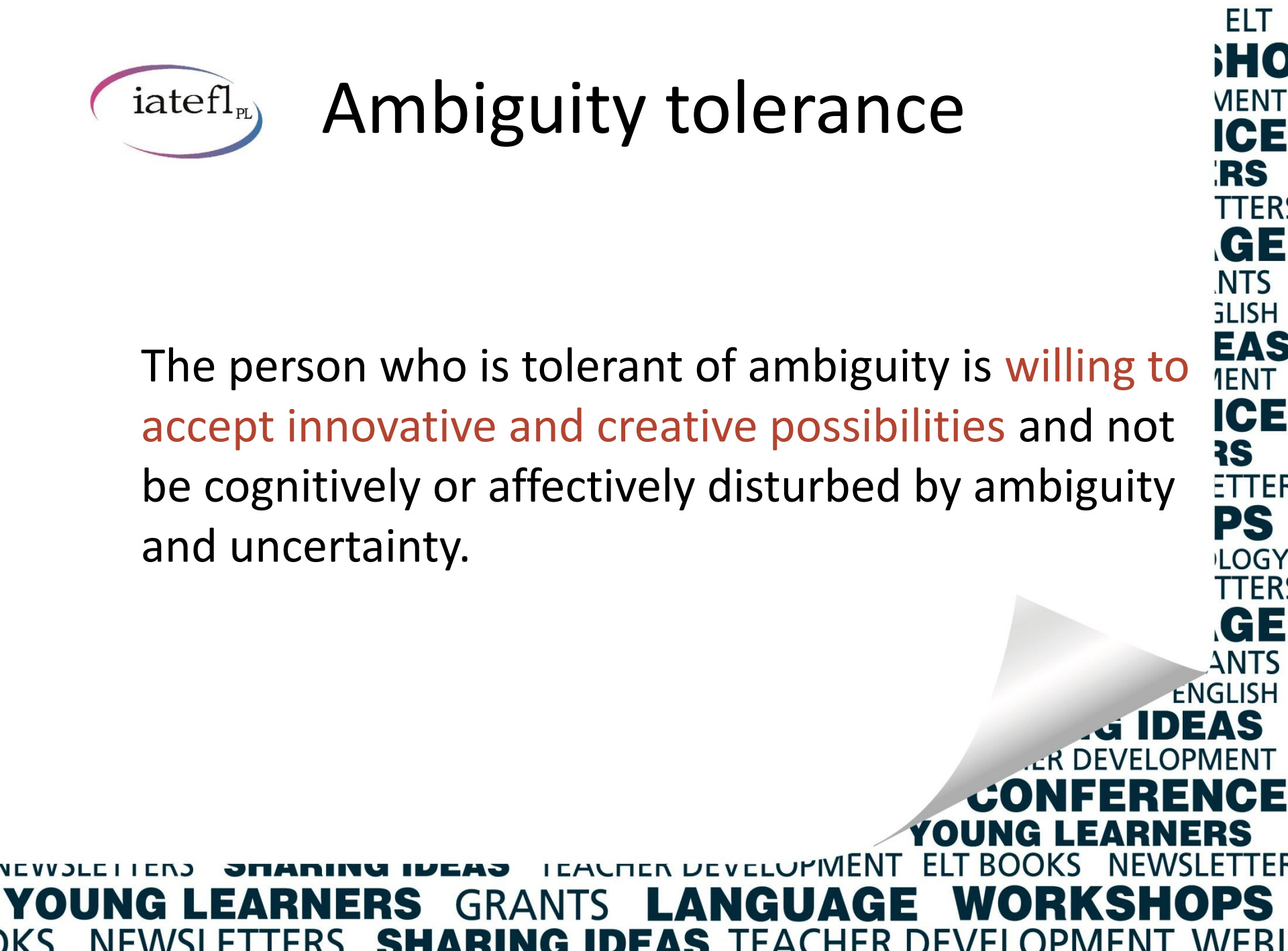
The **right brain** oriented person perceives and remembers visual, tactile, and auditory images. It is more efficient in processing **holistic**, **integrative**, and **emotional** information.

The **left brain** oriented person is associated with **logical, analytical thoughts**, with **mathematical** and **linear** processing of information



Ambiguity tolerance

The person who is tolerant of ambiguity is **willing to accept innovative and creative possibilities** and not be cognitively or affectively disturbed by ambiguity and uncertainty.



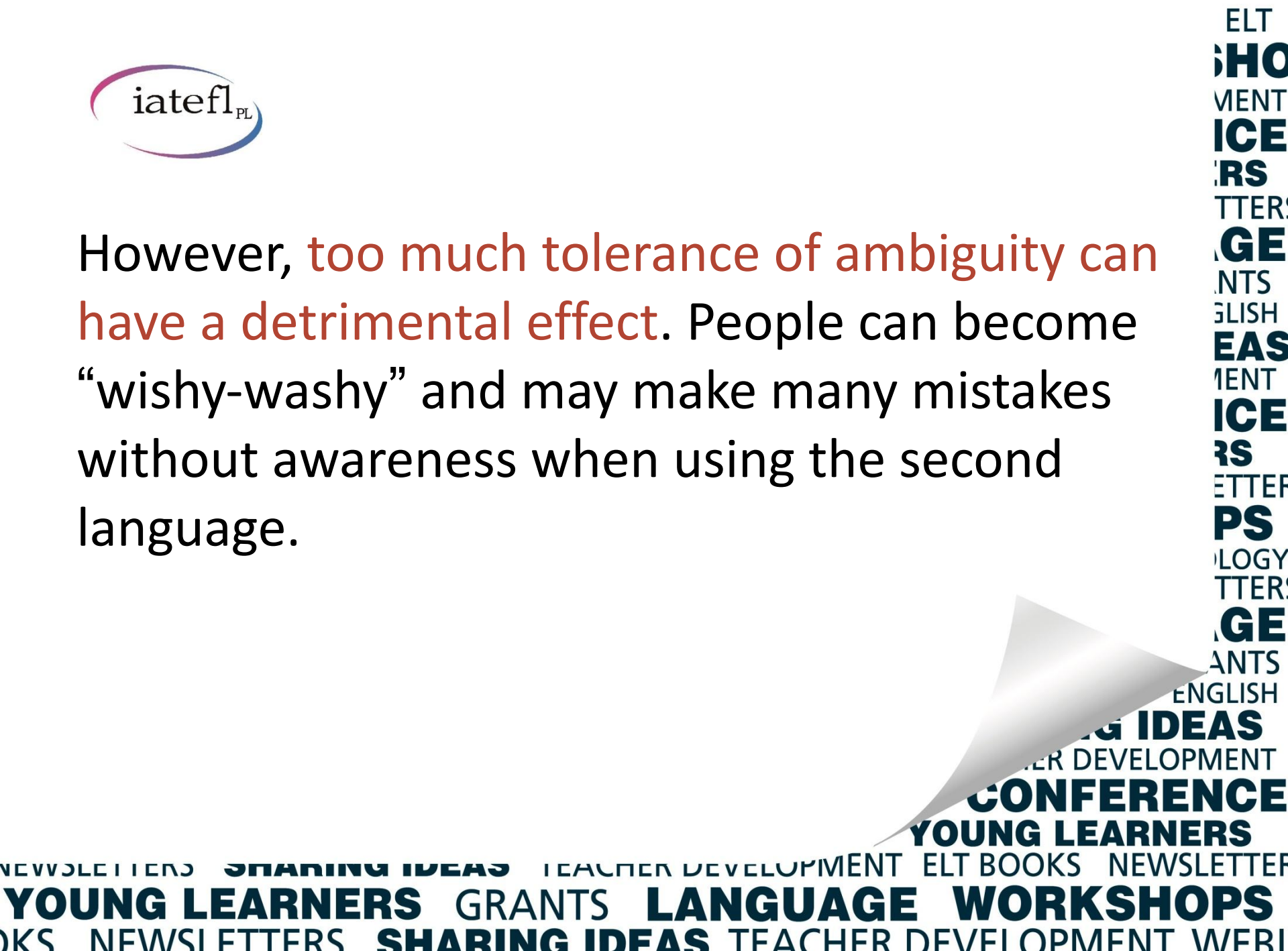


In second language learning a great amount of apparently contradictory or ambiguous information is encountered (e.g., words, grammatical rules, and cultural systems in the L2 differ from the L1).

Successful language learning requires tolerance of such ambiguities, at least for interim periods



However, too much tolerance of ambiguity can have a detrimental effect. People can become “wishy-washy” and may make many mistakes without awareness when using the second language.





“Tell me and I forget.
Show me and I remember.
Involve me and I understand.”

Confucius



Perceptual learning styles

- **Visual** learner: learns more effectively through the eyes (seeing).
- **Auditory** (**aural**) learners: learns more effectively through the ears (hearing).
- **Haptic** learner: learns more effectively through touch and body movement (a combination of the kinesthetic and tactile styles).
- **Kinesthetic** learner: learns more effectively through concrete body experience (body movement).
- **Tactile** learner: learns more effectively through touch (hands-on)



installing

YOUNG LEARNERS

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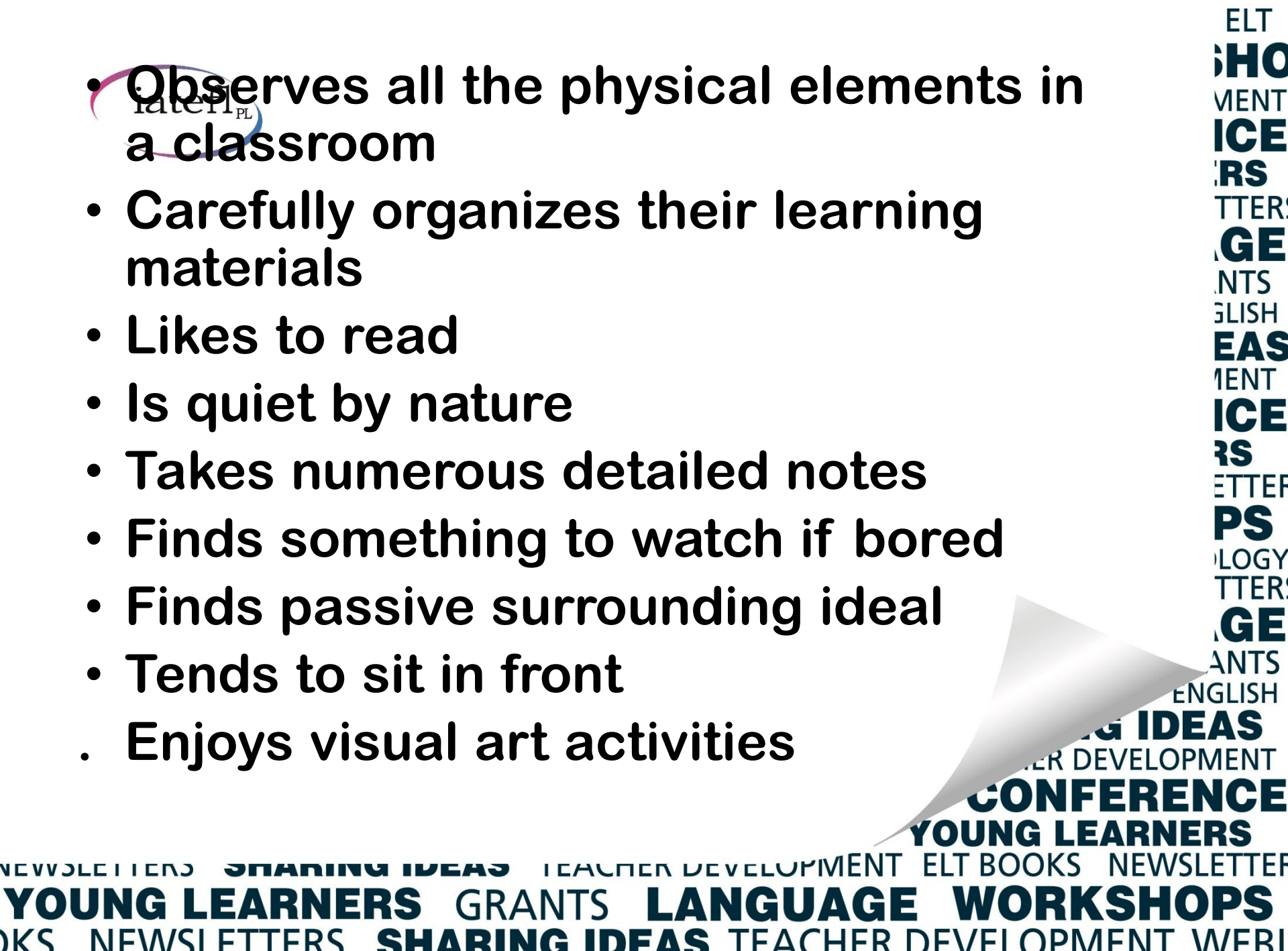
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A visual learner

- Prefers to see words written down
- Prefers to have a picture to view
- Prefers a time-line or some other similar diagram to remember historical events
- Closes his eyes to remember or visualize something
- Observes rather than talks or acts
- Prefers written instructions rather than verbal instructions

- Observes all the physical elements in a classroom
- Carefully organizes their learning materials
- Likes to read
- Is quiet by nature
- Takes numerous detailed notes
- Finds something to watch if bored
- Finds passive surrounding ideal
- Tends to sit in front
- Enjoys visual art activities





Suggested Activities for Visual Learners

- Powerpoint
- Video/movies
- Graphs
- Posters
- Maps/globe
- Diagrams
- Illustrations
- Colouring books
- Magazines
- Newspapers





Traits of an auditory learner

- Remembers what they hear
- Remembers best by saying things aloud
- Whispers to self while reading
- Enjoys class and group discussions
- Enjoys the opportunities to present dramatically, including the use of music
- Finds it difficult to work quietly

- Easily distracted by noise, but also easily distracted by silence
- Has more difficulty with written direction
- Remembers verbal instructions well
- Sits where they can hear but needn't pay attention to what is happening in front
- May not coordinate colors or clothes, but can explain why they are wearing what they are wearing and why
- Hums or talks to themselves or others when bored

Suggested Activities for Auditory Learners



- Oral recitation
- Group work
- Debate
- Panel discussion
- Musical performance
- Songs/raps
- Tape recordings
- Videos/movies
- Verbal games
- Reporting-current events



Traits of a tactile/kinesthetic learner

- Remembers what they DO very well
- Enjoys acting out a situation
- Uses hands while talking
- Has trouble staying in one place
- Enjoys hands-on activities
- Tends to want to eat snacks while studying

- Likes physical rewards
- Taps pencil or foot while studying
- Relies on what they can directly experience or perform
- Needs to be active and take frequent breaks
- Speaks with their hands and with gestures
- Sits near the door or someplace else where they can easily get up and move around
- Finds reasons to move when bored

Suggested Activities for Tactile Learners



- Dancing
- Modelling
- Board works
- Role play
- Interview
- Experiment
- Hands-on
- Field trip
- Workbook





Concluding

- Once you **understand** student's learning styles, you are more likely to **meet their needs**.
- **Students can** accurately **predict** their
- **learning modality**.
- Students who are **matched with teachers** of the same learning style **learn best**
- The more a student can utilize learning through the **combination of visual, auditory and kinesthetic** modalities, the **more permanent** the information becomes.

- A student's learning style is **the same** no matter what the **subject area** is.
- Students **score higher** in tests when they are tested in the **environment best suited** to their personal learning styles.
- **Persistent and responsible students** achieve **better grades** and **score higher** in test.
- A key to quick learning and memory is to **change the information** to be learned into the form that the **brain can digest most easily**.



Thank you so much

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