

From context to text

Learning to read in a second language



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Reggio Emilia, 2-3-2019

Overview

- A few observations
- The impact of literacy
 1. Metalinguistic awareness
 2. Processing linguistic information
 3. Cognition
- 4. Learning to read
 - What?
 - How?
- 5. The European Literacy Framework

Observing beginners

- Reading
 - Could you read this letter to me?
 - Hassans tooth ache
 - Fatma goes to school
- Writing:
 - A book of my life
 - Emergent writers

What is written here?

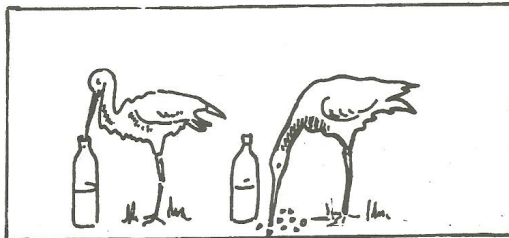
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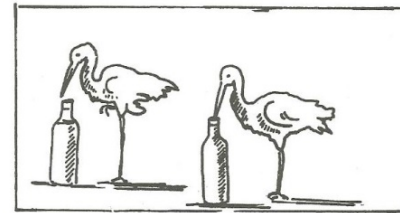


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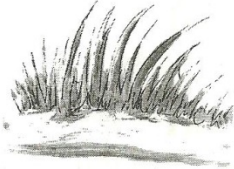
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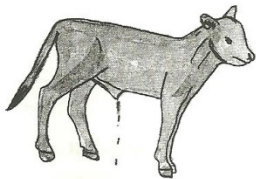
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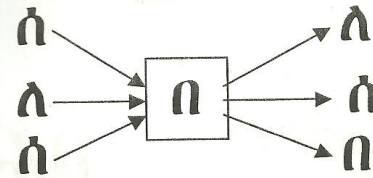
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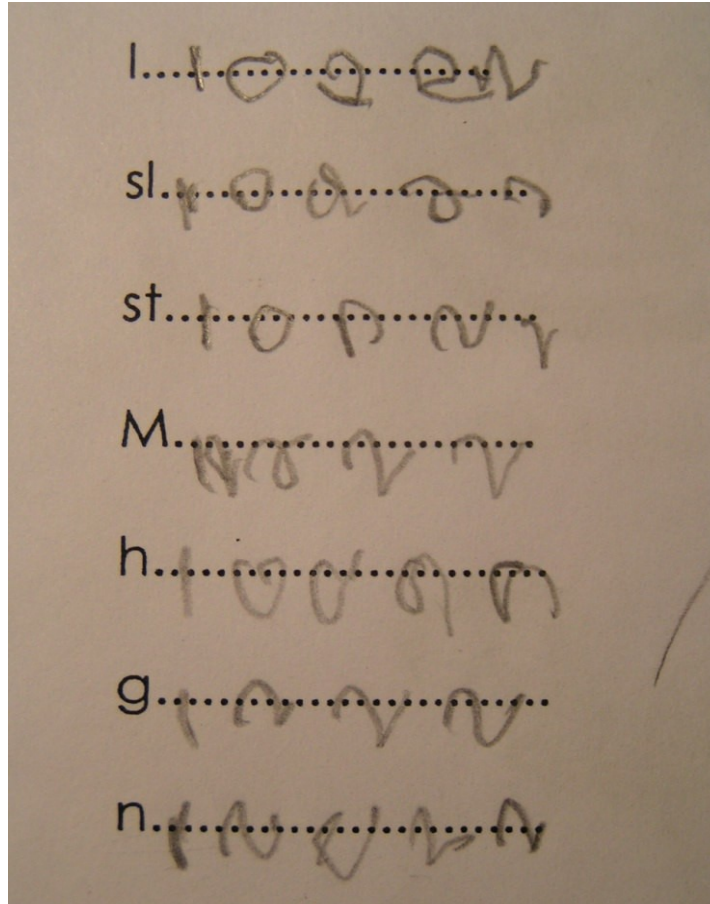
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Fatima writes



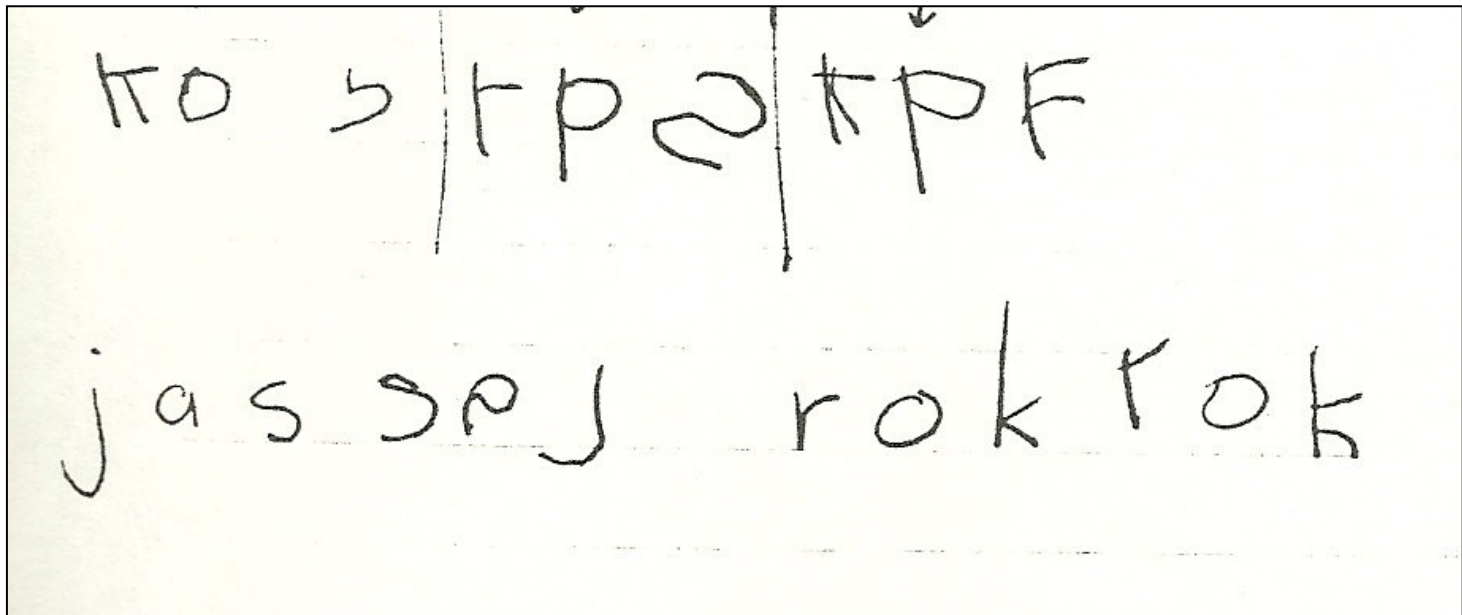
class
Willemijn Stockmann

Jahmila

jas

rok

kip



from: Jeanne Kurvers

Kwaku's first letter

aosevtok

Research overview

1. Does literacy impact metalinguistic awareness?
1. Does literacy impact linguistic processing?
1. Does literacy impact logic/deductive reasoning?

1

LITERACY AND METALINGUISTIC AWARENESS

Literacy and metalinguistic awareness

- Phonological awareness
 - Phonemic
 - syllabic
- Word awareness
 - What is a word?
 - Last word
 - Sentence segmentation
- Print awareness
 - Street signs, letters, register

Segmentation sentences and words

- Could you segment into pieces (orally)
 - I come from the south of Somalia
 - The old man
 - In the shop
 - Tomatoes
 - man

Examples non-literates

- I come from the south of Somalia
 - I come / from south Somalia
 - You have the south and the north, is that what you mean?
- The old man
 - No you can't!
 - Do you mean old men and young men?
- In the shop
 - No, that is one place
- Tomatoes
 - Every one a tomato
 - Into four parts
 - To / ma /toes

Could someone write this?

- I live in Italy
- Outside
- Ten
- I was raining yesterday
- A baby is very old

Examples non-literates

- Yes, because I do live in Italy
- You could write 'tree' but not 'outside'
- Ten, yes, that can be written
- No, because it was not raining yesterday
- *If* it was raining yesterday, you could write that down.
- No, of course not, a baby is not old.
- You could write it down, but it is still nonsense

Results metalinguistic tasks

- On nearly all tasks:
- Significant differences between (low-educated) readers and non-readers
 - Exception: rhyme recognition and segmentation in syllables
- Arguments non-literates: based on experience and content

2

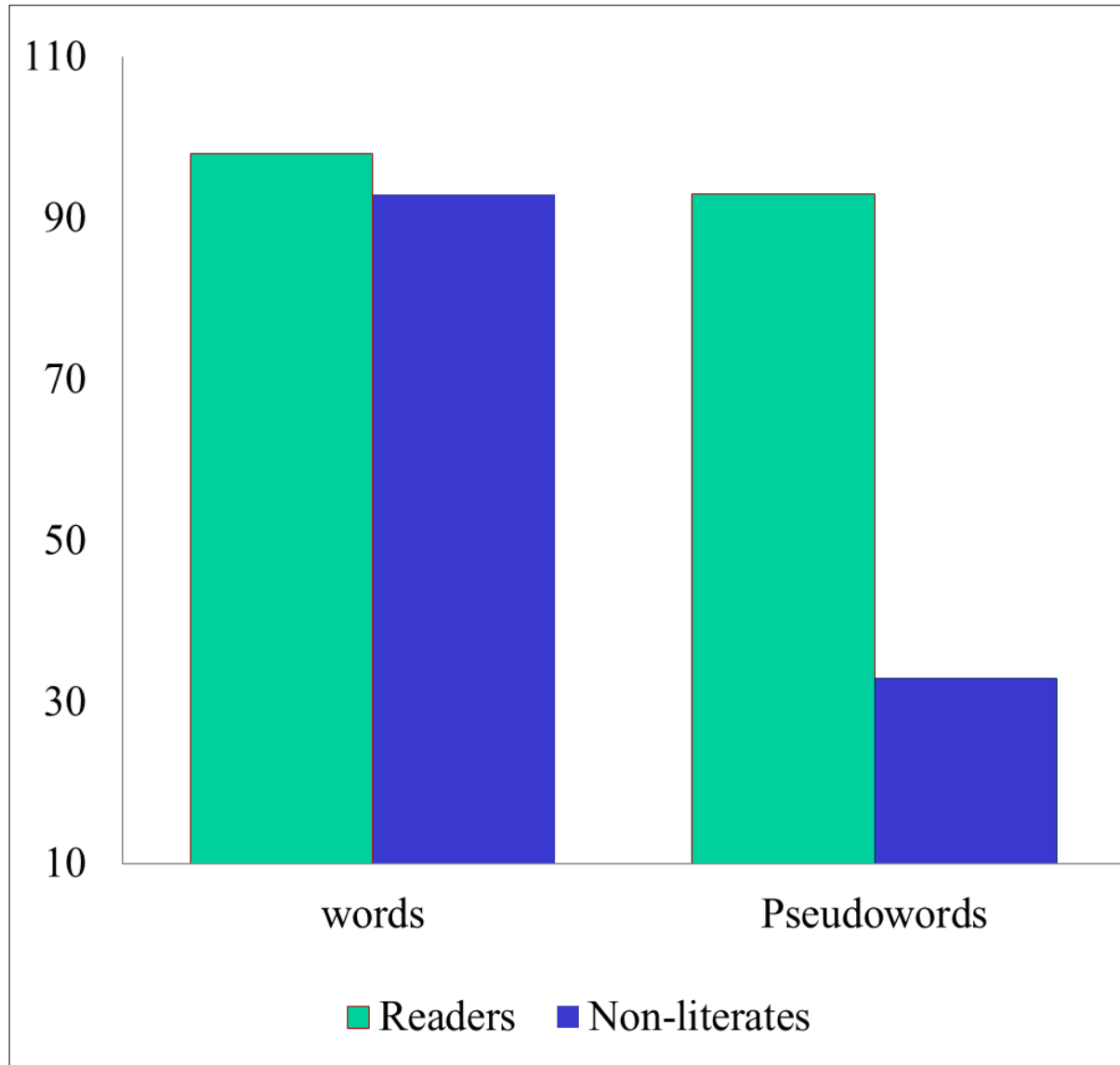
LITERACY AND LANGUAGE PROCESSING

Impact on language processing

- Word and pseudo-word repetition
- Verbal fluency
 - Mention as much words as you can with a p
 - Mention as much animals/food as you can
- Working memory

Language Processing: word repetition

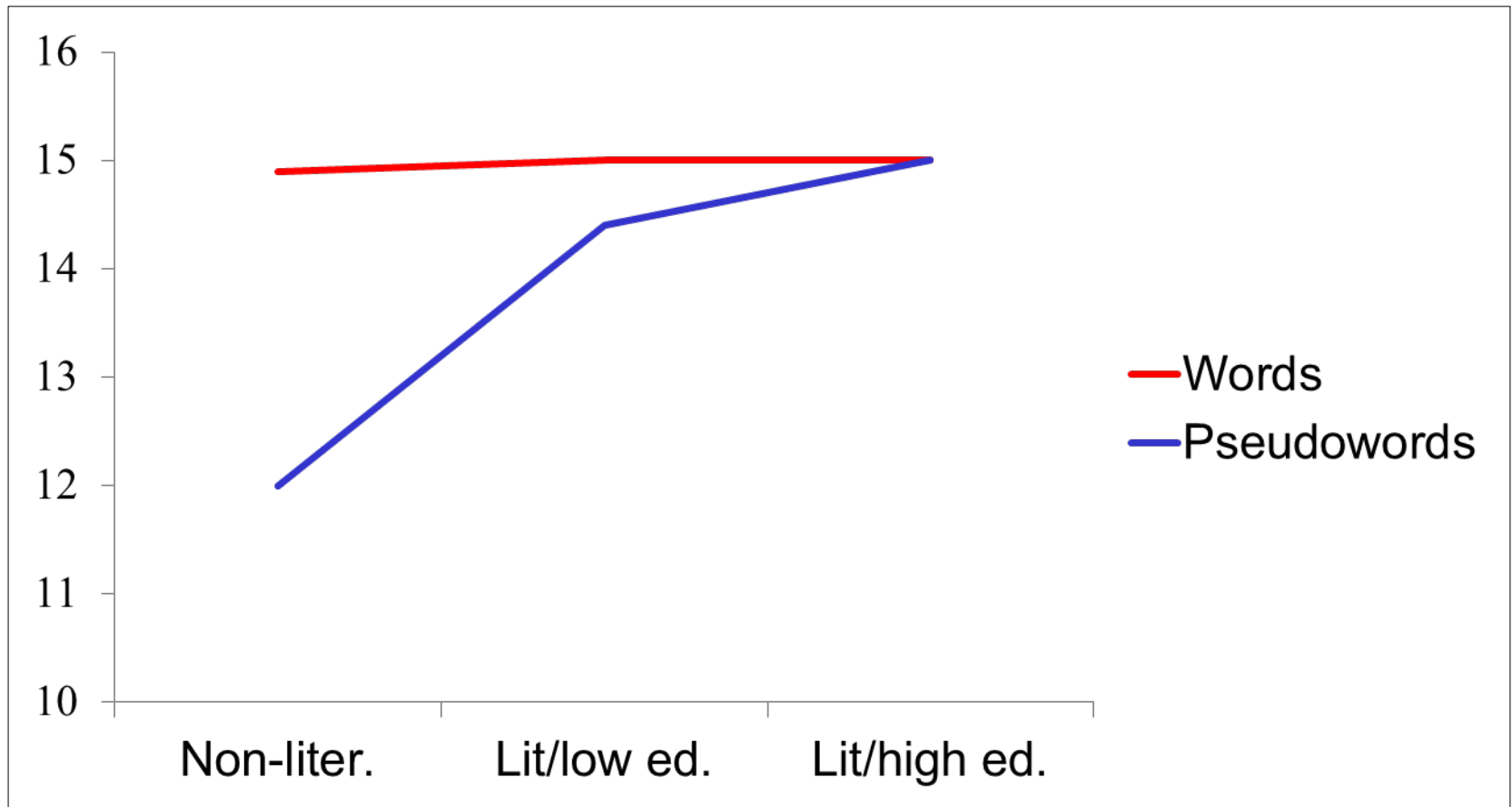
(Reis & Castro-Caldas, 1997)



capra
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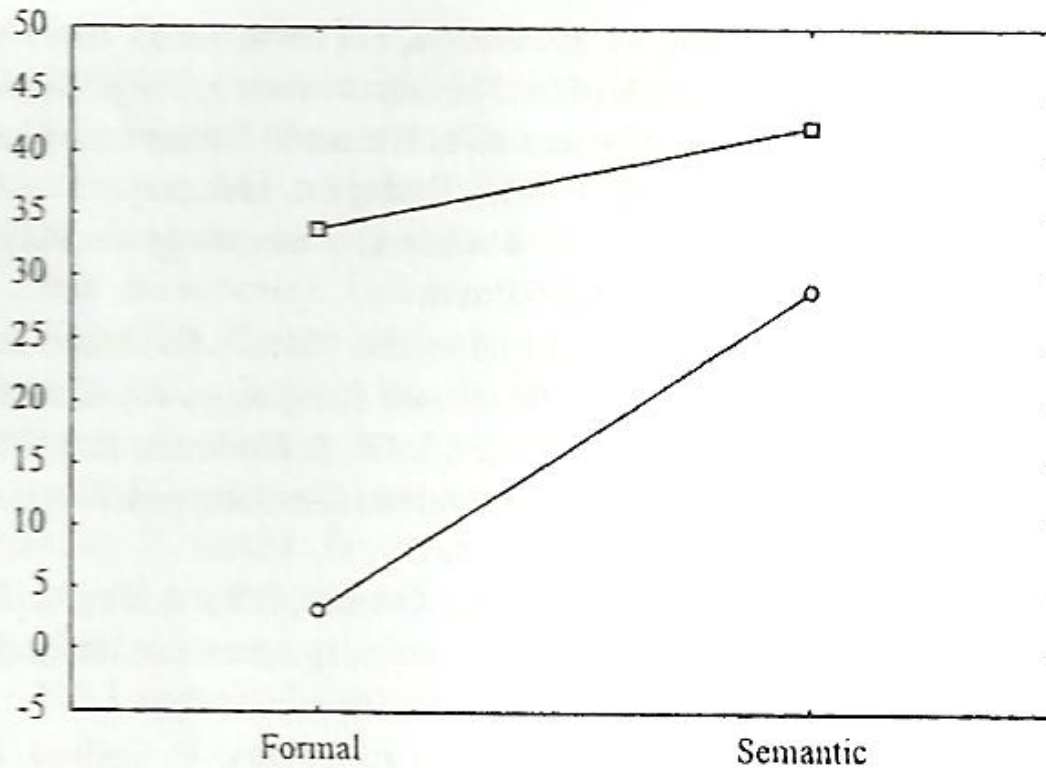
Verbal repetition

(Kosmidis et al., 2004)



Verbal fluency

(Reis & Castro-Caldas, 1997)



Formal= words with p
Semantic= animals

—○— Illiterate
Group
—□— Literate
Group

Impact on language processing

- Results:
- **no** differences between non-literates and literates in **meaning** based processing of information (**lexical-semantic**)
- but **big** differences in processing **sounds** (**phonological** information)

3

LITERACY AND COGNITION

Examples research on reasoning

(Luria, 1975)

Taxonomic classification

The odd one out

-glass, pan, glasses, bottle

-rifle, bow and arrow, gun, bird

-Saw, hammer, log, axe

Syllogisms:

All bears on Nova Zembla, far up in the North, are white.

Last year, my cousin saw a bear on Nova Zembla

What was the colour of the bear?

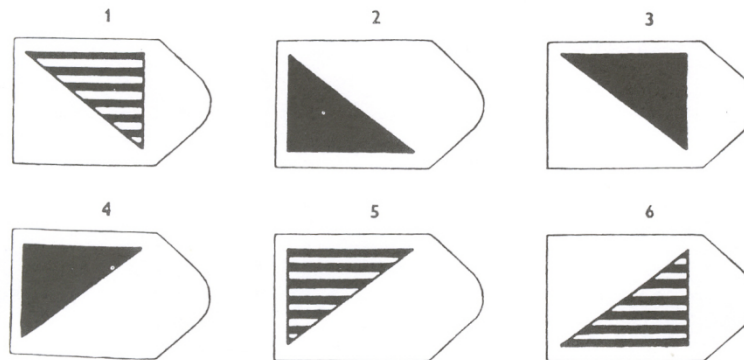
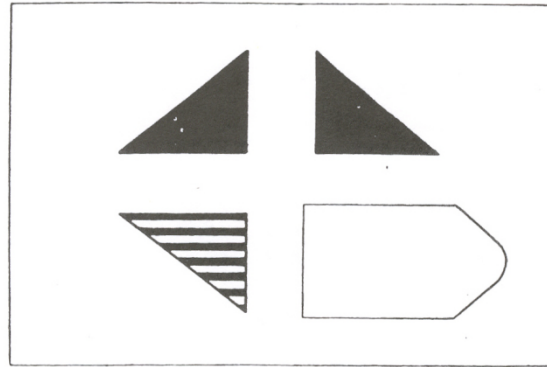
Study Kurvers

- Comparison of three groups:
 - preliterate children, non-literate adults, low-educated literate adults
 - Somali, Turkish, Berber
- Tasks:
 - metalinguistic tasks and cognitive tasks
- Question: Impact of literacy or something else?
 - If children differ from adults (irrespective of literacy experience) → **no impact** of literacy
 - If readers differ from non-readers (irrespective of age) → **impact** of literacy

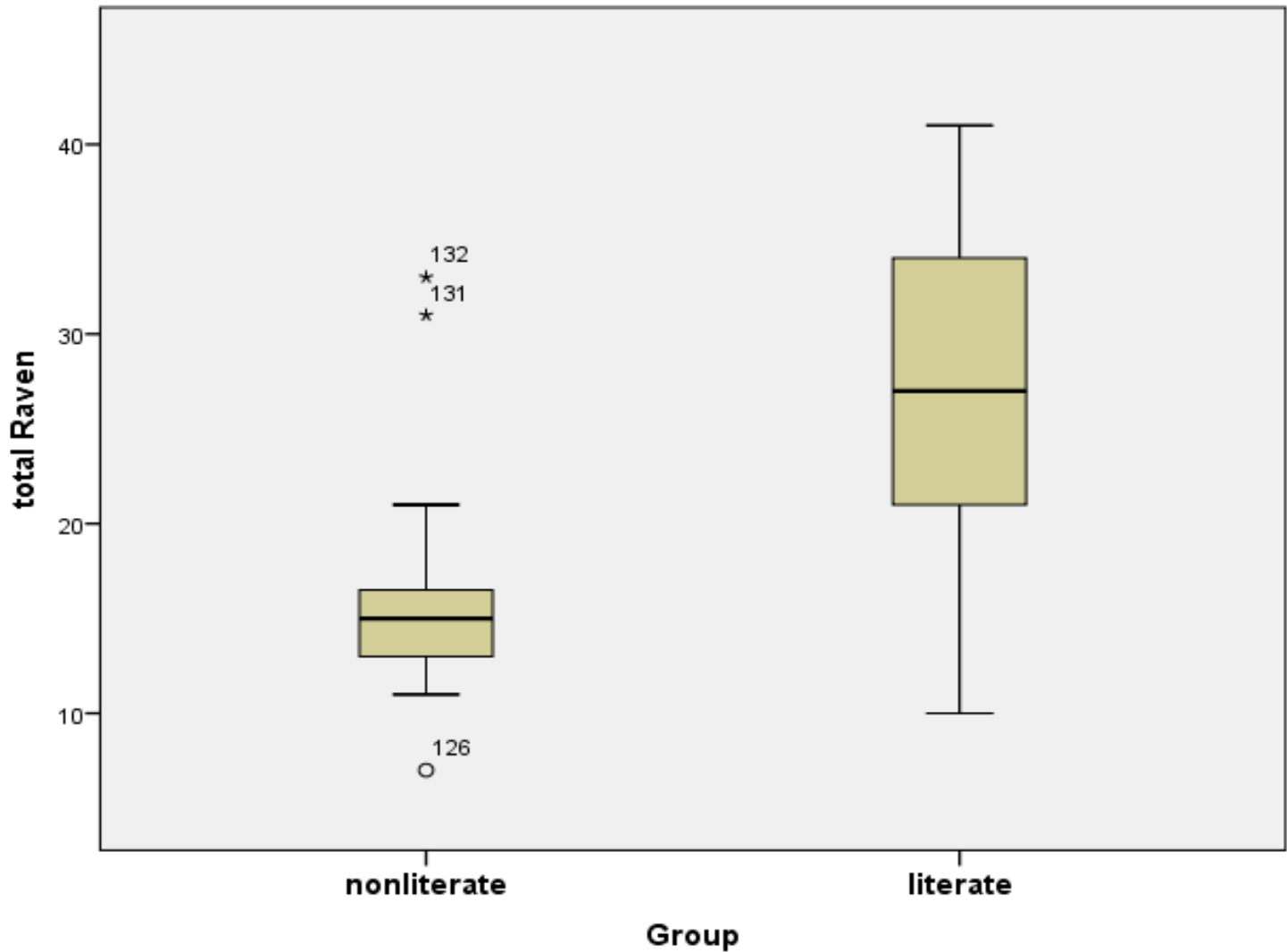
Cognitive tasks

- Raven Standard Progressive Matrices (adults only)
- Taxonomic classification
- Simple reasoning task (syllogisms)
- Tasks conducted in L1 (Berber, Turkish, Somali) unless respondent preferred L2.

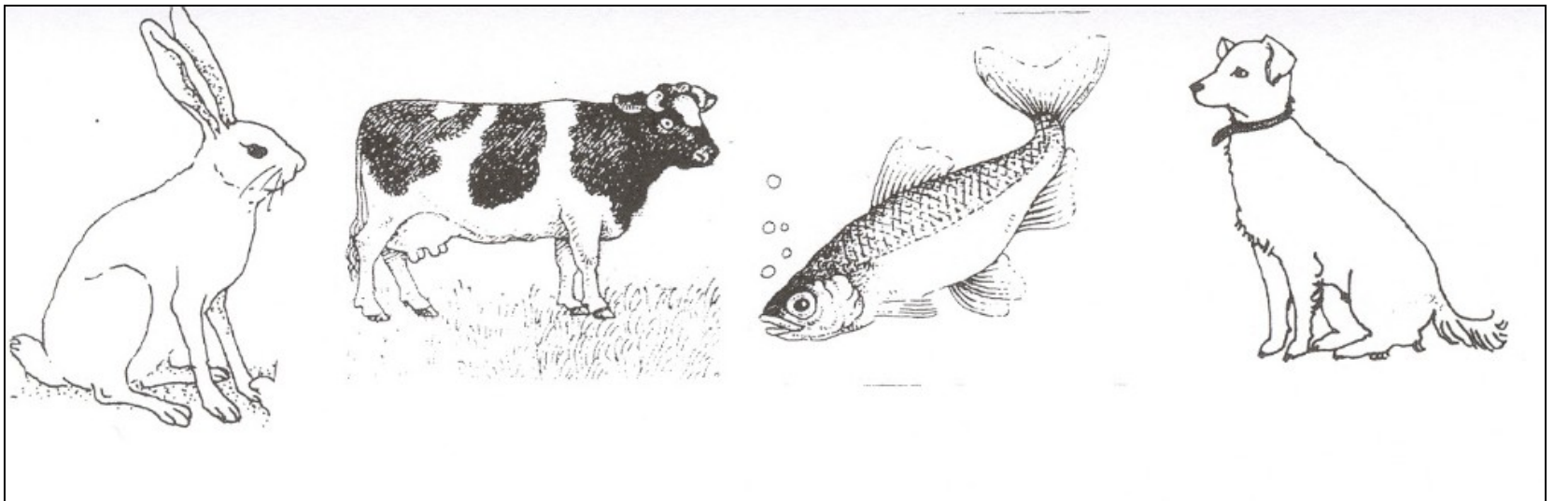
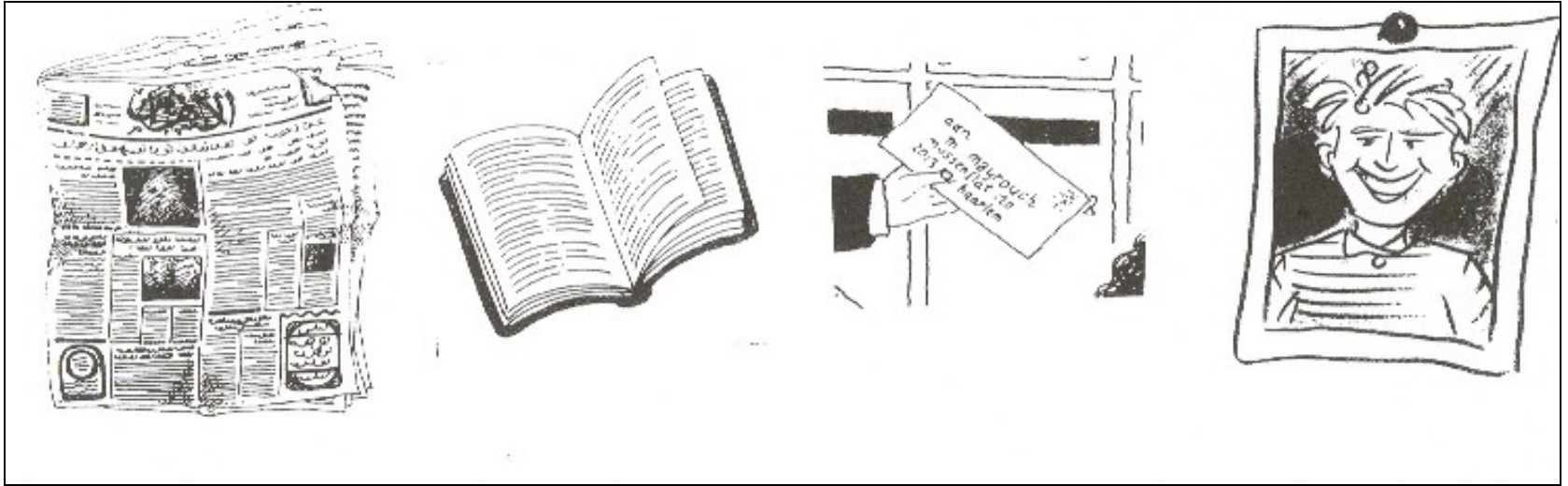
Cogniton: Raven SPM



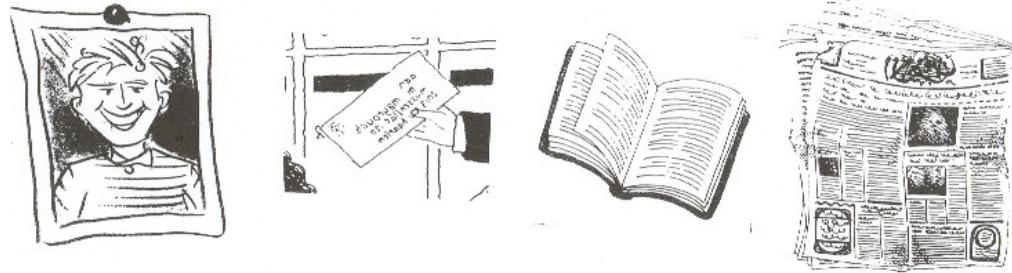
Results Raven SPM (max=42)



Classification



Examples classification 1



- **Most Literates**

- Picture, because the other three are for reading

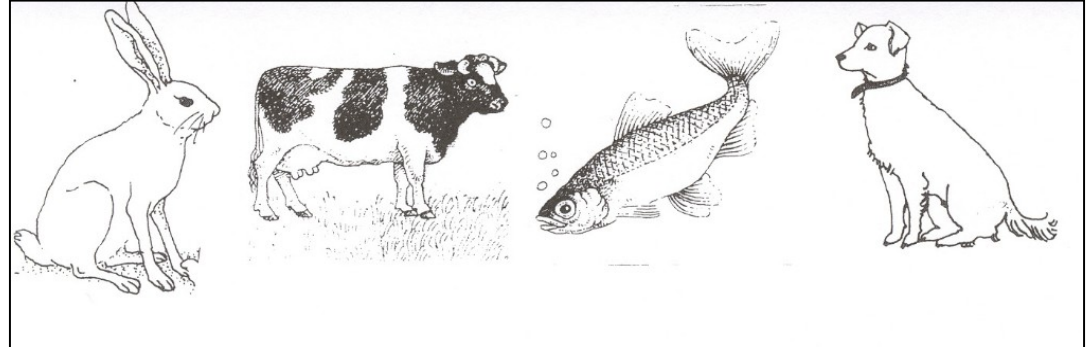
- **Non-Literates**

- Picture, because that is on the wall
- Newspaper, because you can throw it away when you have finished reading.
- Letter, because that comes through the postbox
- Photo, because you need a son for the other three

Example classification 2

- Most literates

- Fish



- Non-literates

- Dog, because we do not eat dogs

- Rabbit, because not useful for people

- Rabbit, does not live in the Netherlands

- Dog, because a dog is allowed in the living room

- Fish, because the others do not live in the water

Analysis classification

- Example: Saw, hammer, wood log, axe
- Taxonomic
 - (wood)log, because other three are tools
- Situational/functional
 - You also need the wood, because otherwise there is nothing to saw or hammer
- Idiosyncratic
 - The saw, because you cannot saw with the other three

Results classification

| | Child | Non-literate | Literate |
|---------------|-------|--------------|----------|
| taxonomic | 38% | 55% | 77% |
| situational | 19% | 26% | 16% |
| idiosyncratic | 43% | 19% | 7% |

Examples reasoning

- All women in Markey are married
 - Fatma is not married
 - Does Fatma live in Markey?
-
- All stones on the moon are blue
 - A man went to the moon and found a stone.
 - What was the colour of that stone?

Examples reasoning task

- Does Fatma live in Markey?
- Most literates:
 - No, because all women are married there
- Non-Literates:
 - No, because I know Fatma. She lives here.
 - How should I know, I have never been there.
 - We have to ask Fatma.
 - It can not be that there is a country where all women are married.
 - Should I give my opinion, or react on your words?

Examples reasoning task

- What was the colour of that stone?
- Most literates:
 - Blue, because all stones are blue there
- Non-Literates:
 - Black, because it is very hot there
 - How should I know, I have never been there
 - There are no stones on the moon
 - Brown, just look outside.
 - I think blue, because the sky is blue.
 - Black or white, that depends

Frequencies arguments by group

| | Child | Non-literate | Literate |
|------------------|-------|--------------|----------|
| Premise based | 33% | 19% | 67% |
| Experience based | 39% | 75% | 27% |
| No argument | 28% | 6% | 6% |

A closer look at reasoning

- Is it the question?
- Is it the verbal aspect?
 - Box task (Haan 2007)
- Is it the meaning of the concept “all”?
 - Brothers task (Haan 2007)

Scribner & Cole (1981)

- E: All Kpelle men are rice farmers. Mr Smith is not a rice farmer. Is he a Kpelle men?
- S: I don't know the man in person. I have not laid eyes on the man himself.
- E: Just think about the statement.
- S: If I know him in person, I can answer that question, but since I do not know him in person I cannot answer that question.

Kurvers, 2002

- E: Listen (repeats). Does Fatma live in Markey?
- *Arkem: Fatma lives in Markey, or in Turkey (laughs). **Fatma is not married**, hè? **All women are married**, she is not. Why is she not married?*
- E: Does she live in Markey, you think?
- *Arkem: **I don't know**. She might live there, or here.*

Verbal aspect: Box task

(Haan, 2007)

- Show three red boxes with a ping-pong ball.
- Hide the three boxes, show one of the red boxes again.
- “What is in this box?”
- **Non-literates: Correct 69%**
- Respondents can deduce information if the information is presented visually.

Concept all? (Haan, 2007)

- Simplified syllogism
 - I have three brothers.
 - All three of my brothers live in Rotterdam.
 - Jan is one of my brothers. In which city does Jan live?
- **Non-literates: Correct 25%**
- What is the difference with the box-task?

Example brothers' task

- Exp: Where does Jan live?
- Lahcen: [long pause] **You did not tell me** where Jan lives. You told me that your brothers live in Rotterdam, but not where Jan lives.
- Exp: All three of my brothers live in Rotterdam, all three. Jan is one of my brothers. Where does Jan live?
- Lahcen: Those three brothers of yours live in Rotterdam, **he may be one of them**.
- Exp: Jan is one of my brothers.
- Lahcen: Then they all live in Rotterdam

Compare

- Lahcen: **You did not tell me** where Jan lives
 - Implicit question: “Do you remember what I told you about Jan?”
- Khadizja: Blue, because **you told me**
 - Answer to a different question: “Where does Jan live when A and B are true?”
- Compare with reading comprehension in literacy classes and test items

Conclusions

- Literacy opens **new ways of handling verbal information**
- Default handling: relating verbal statements one by one to the immediate, outside **context**, the direct world; **situated cognition**, combining and integrating acting and speaking: **contextual verbal reasoning**
- Literate (metalinguistic) handling: relating verbal statements first of all to each other, within the **text**: **textual verbal reasoning**.
- The literate (metalinguistic) point of view: integrating verbal (textual) information before contextual checking

4

LEARNING TO READ IN AN ALPHABETIC SCRIPT

What?

Writing systems

Writing systems

- Logographic:
 - one sign for each word (Chinese)
- Syllabic:
 - one sign for each syllable (Kana, Tamil, Ge'ez)

ど 関 東 平 野

አቦይን አደይን ንግይ ይፈትዉኒ

- Alphabetic:
 - One sign for each phoneme
 - All vowels written (Italian, Dutch, Greek, Cyrillic, Berber)

$$\sqrt{2} \frac{\partial}{\partial t} \left(\frac{\partial^2 u}{\partial x^2} + \frac{\partial^2 v}{\partial y^2} \right) = - \frac{\partial^3 u}{\partial x^3} - \frac{\partial^3 v}{\partial y^3}$$

- Not all vowels written (Arabic, Hebrew)

How?

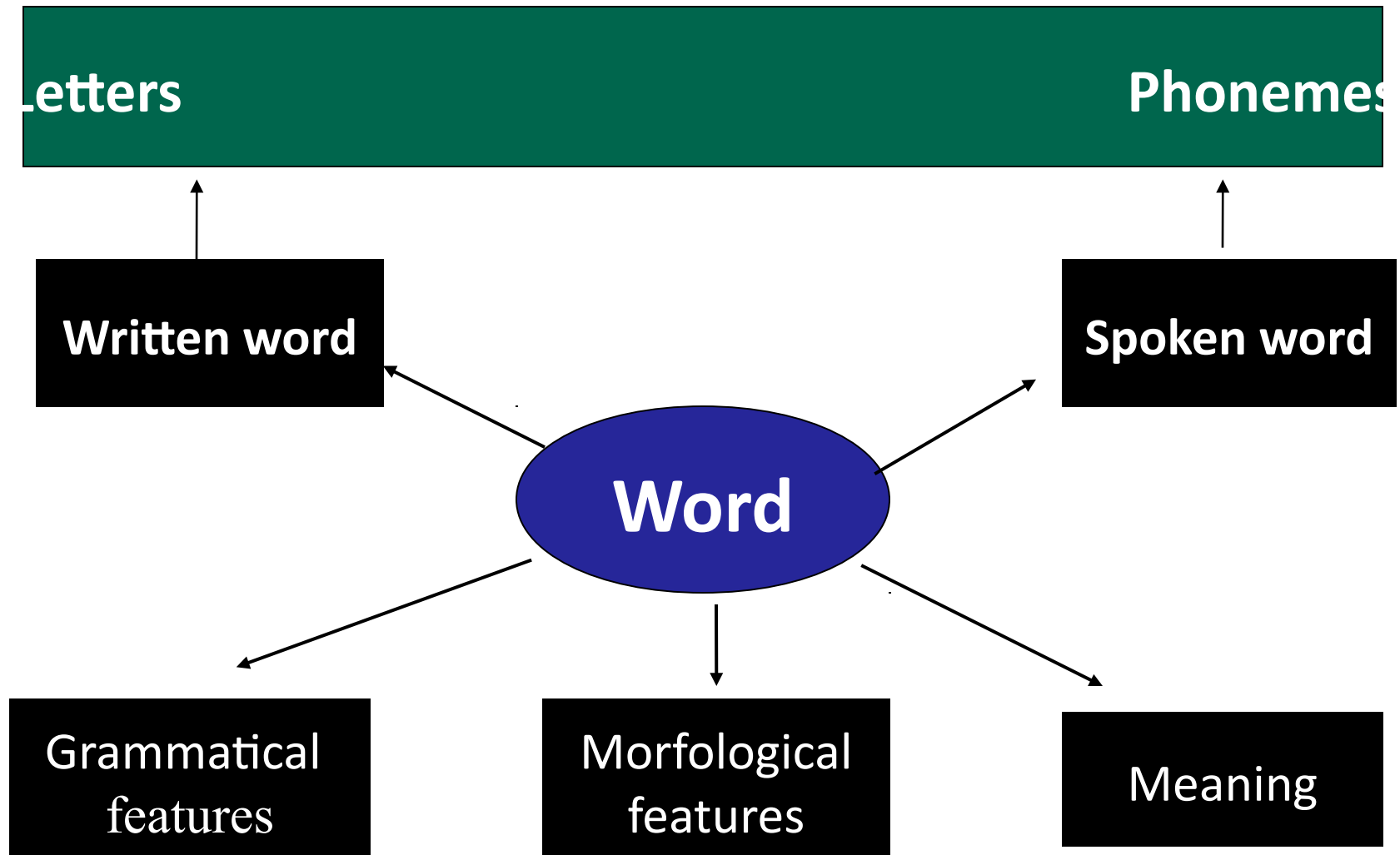


The learning process
Word recognition

What does it say?

- pen
- chicken
- train
- letter
- leg

Word recognition



Reading aloud: treno

Tre

I do not know

treno

tee-er-ee-en-o

Tr-tra-no tra-no

tramo

autobus

Fr- fr- fre - no

stazione

t-r-t-r-t-r-a- m-n-o trano?

nome?

freno

tre-tre-tre-no treno

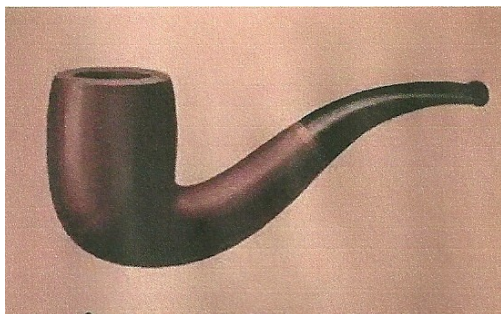
O-u-n-e-r-t-t

Stages word recognition

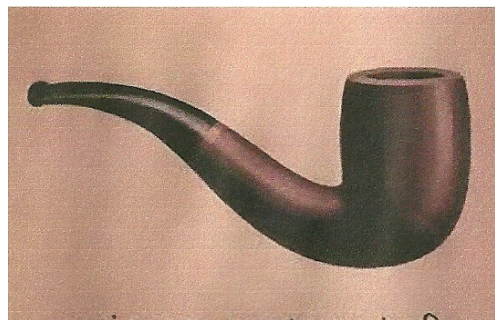
- Logographic stage: **direct** recognition
 - Global reading / memorizing whole words
- Alphabetic stage: **indirect recognition**
 - Decoding letter by letter and sounding out
- Orthographic stage: **direct recognition**
 - Automatizing sounding out, fluency in reading

Some pitfalls

Orientation and order



=



b \neq p



=



vino \neq novi

Which word fits the picture?

- gotta
- getto
- gatto
- toga
- gallo
- dato



Circle the animals

- ratto pane vino danza
- risa casa mucca cane
- due gatto letto sole
- capra curvo pollo porta
- mela cervo rosa lupo
- nome sede luce soldi
- asino pesce toro fumo

Circle the animals

- | | | | |
|--------|------|------|------|
| • kat | mies | bel | mos |
| • kaas | som | haas | ram |
| • mus | muus | haai | poes |
| • aap | koek | duif | kool |
| • boek | koe | meer | dief |
| • ree | vis | mes | zeef |
| • ijs | vos | mier | poot |

5

THE EUROPEAN LITERACY AND SECOND LANGUAGE FRAMEWORK



EUROPEAN FRAMEWORK OF REFERENCE FOR SECOND LANGUAGE AND LITERACY: FROM NON-LITERACY TO A1 LEVEL



Lorenzo Rocca
Schramm

Alexis Feldmeier Garcia

Rola Naeb

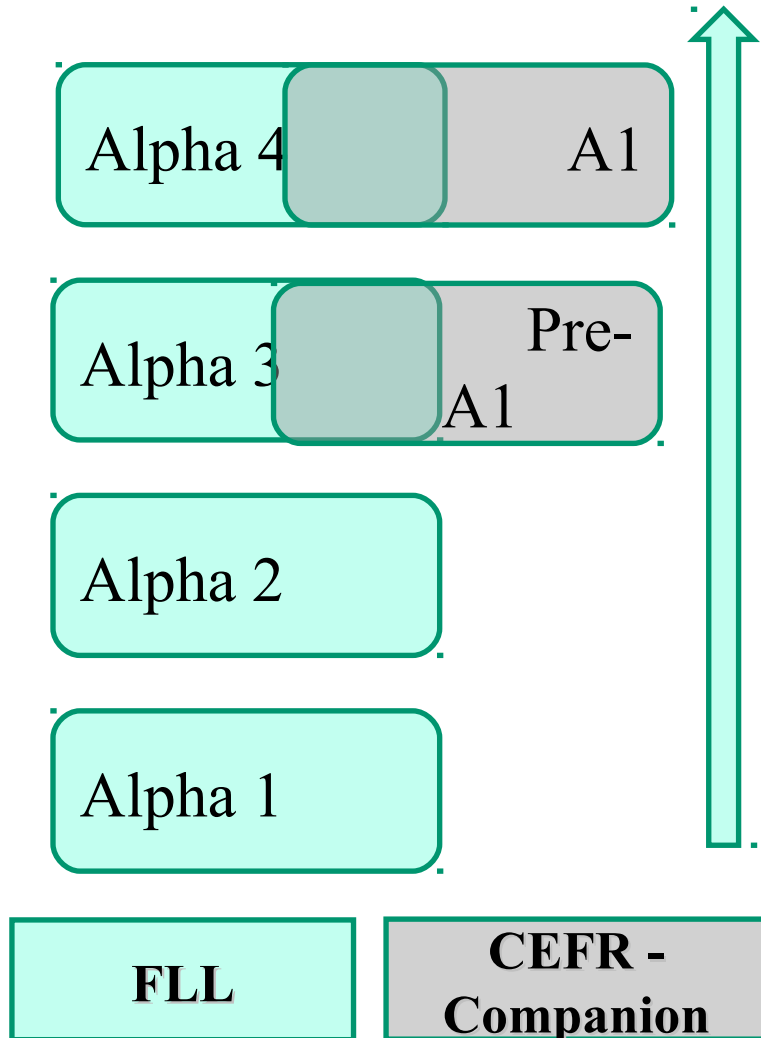
Karen

Fernanda Minuz

Jeanne Kurvers

Taina Tammelin-Laine

Levels and Profiles



- Four levels for both the **technical** and **functional** aspects of literacy and for oral L2 acquisition.
- Overlap with CEFR Pre-A1 and A1 for reception, production, interaction and mediation: **different learner needs**.
- Literacy learning **parallel** to language learning up to **level A1**.
- Levels not single standards → EFLL defines **profiles of competences**, since each activity and skill is specified by a level (Beacco 2008)
- **Learner profiles** are based on educational needs

Tables of descriptors

Define progression in terms of:

- **Communicative language activities**

(reception, production, interaction and mediation)

- **Technical literacy** (e.g. alphabetical principle, analyzing words in syllables)

- **Strategies** (related to learning and language use)

- **Digital competence**

- **Referentials** (functions, genres and general notions)

➤ **17 overall scales**

➤ **24 thematic scales** related to **4 domains** (private, public, occupational, educational)

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