

# Writing about what you cannot see

**A study on Braille readers' writing in  
Swedish schools**

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# Students with blindness in Swedish schools

- A country of long distances and a small population
- Students with blindness – low numbers
- No special schools for VI students without additional disabilities
- Same core curriculum as other students
- Variety in level of support



# Background of the study

- Students with blindness and creative writing
- Teachers do not ask for advise. Why?
- No issues?
- Lack of richness in Braille reading students' texts  
Is it true? Why?
- Concept development
- Imagination
- Ability to take different perspectives

# Concept development, language development, Theory of mind development

- Logical and abstract thinking (Piaget, 1951)
- Early language development  
(Steinman, LeJeune & Kimbrough, 2006; Webster & Roe, 1998; Brambring, 2007; Tadic, Pring & Dale, 2010, Andersen, Dunlea & Kekelis, 1984)
- Verbalisms (Harley, 1963; Millar, 1997)
- Theory of mind  
(Minter, Hobson & Bishop, 1998; Peterson, Peterson & Webb, 2000; Pring & Dewart, 1998; Roch-Levecq, 2006; Slade & Ruffman, 2005; Pijnacker, Vervloed & Steenbergen, 2012)
- Imagery and descriptive language (Eardley & Pring, 2014)

# Students with blindness and writing

## The Effect of Consistent Structured Reading Instruction on High and Low Literacy Achievement in Young Children Who Are Blind

(Emerson, Sitar, Erin, Wormsley & Herlich, 2009)

- Structured and consistent teaching of Braille
- Differences in spelling and punctuation

# Students with blindness / visual impairment and writing

An analysis of writing practices in 4th- and 5th- grade-students with visual impairments (Kreuzer, 2007)

- Lower performance in writhing than expected, concerning text as a whole
  - Word number and quality in word usage
  - More concrete nouns
  - Fewer adjectives
- ... compared to sighted students.

# How does one measure quality in writing?

## Word level

- Productivity – word count
- Word usage – abstract/concrete nouns, adjectives

## Sentence level

- Structure

## Quality in contents

- The text as a whole

(Kreuzer, 2007; Price & Jackson, 2015, Pettersson, 1989;

National Agency for Education: [www.skolverket.se](http://www.skolverket.se))

# Increasing quality in contents

”Characteristics of a **comprehensible** story line are **simple** descriptive phrases and listing of events.

In order for the text to be judged to have **relatively clear** contents, the student should reproduce events and to some extent convey experiences through **developed** descriptive phrases and developed actions, which corresponds to Grade C in this particular aspect.

For the highest grade (A), the student needs to convey experiences, and value or develop these in **well-developed** descriptive phrases and a **well-developed** plot. The text is then deemed to have **clear** contents. ”

(National Agency for Education: [www.skolverket.se](http://www.skolverket.se))

# Purpose of the study

The purpose of my study was to explore how students with blindness express themselves in narrative writing, examining texts from the national tests in Swedish for year 6 and year 9.

- How does the linguistic variation show in the texts?
- Which types of descriptive phrases are present in the texts?

# Method: Quantitative and qualitative processing of students' texts

23 narrative  
texts  
2011-2016

Different topics  
Similar  
assignments

Same  
assessment  
base

Anonymized

Year 6:  
5 girls  
8 boys

Year 9:  
5 girls  
5 boys

# Results

## Word level

- Productivity, content words  
(nouns, adjectives, adverbs)

## Sentence level

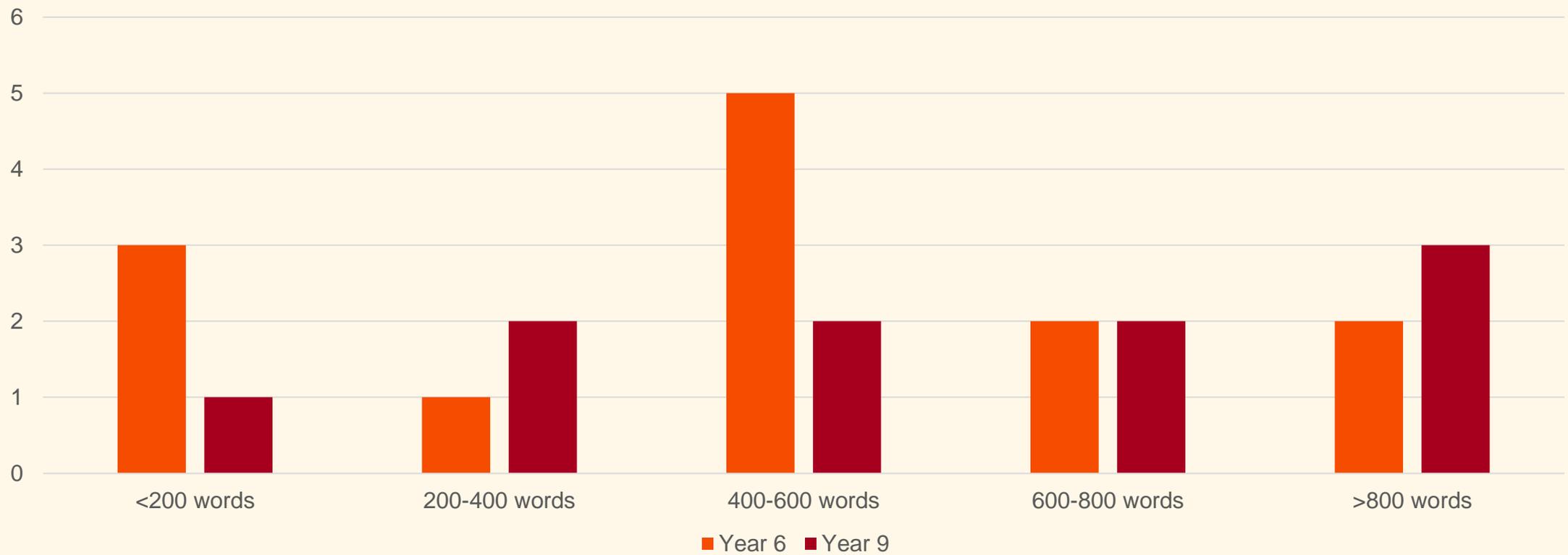
- Sentence structure
- Textual binding

## Contents

- Descriptive phrases
- Misconceptions

(Price & Jackson, 2015)

# Word count



# Increasing word count

<b>Very low</b> (3 girls, 1 boy)	<b>Medium high</b> (2 girls, 5 boys) Year 6                      Year 9		<b>Very high</b> (4 girls, 1 boy)
Low variation in sentence structures	Some variation in sentence structure	Small variation in sentence structure	
Few and simple descriptive phrases	Simple, onomatopoeic descriptive phrases	No descriptive phrases	Many well-developed descriptive phrases
Adjectives used in everyday language	Listing of adjectives	Low number of adjectives	Connections to several senses in descriptive phrases

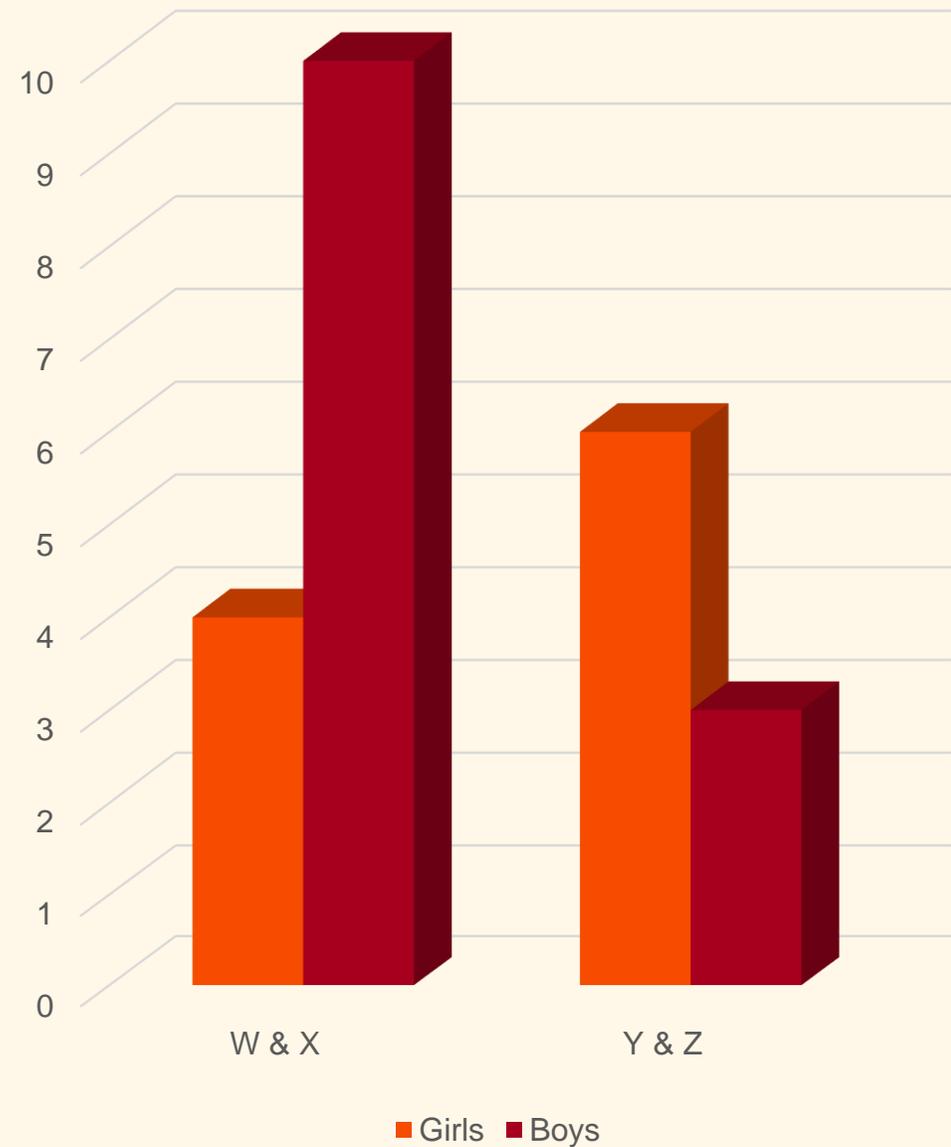
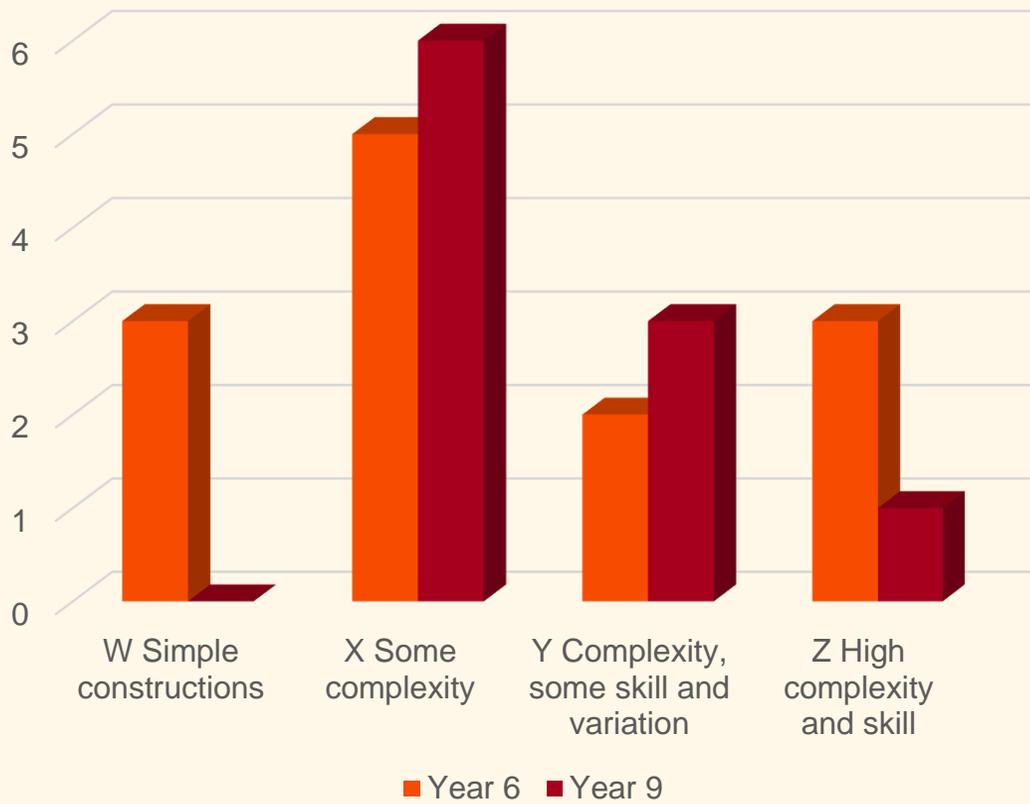
# Content words – proportion of abstract nouns

	Abstract nouns (median value)
Year 6	39%
Year 9	62%

# Content words - adjectives

	Year	Very low word count	Low word count	Medium high word count	High word count	Very high word count
<b>Number of adjectives</b> <b>(proportion)</b>	6	8-10 (3-10%)	25 (6%)	15-30 (3-5%)	15-37 (2-6%)	45-68 (4%)
	9	10 (6%)	16-21 (5-7%)	16-43 (2-6%)	-	59-101 (5-8%)

# Sentence structure



# Category W – simple constructions

**I get warm because I work hard. When I have finished working I get tired and sleep well at night.**

**Everyone cheered and applauded a lot.**

More complex– less correct

**I became very famous for my efforts.**

**In the end I felt very satisfied.**

# Category X – some complexity in sentence structures

More advanced and complex, greater variation.

Greater risks – more faulty sentence structures.

**Instead of her helping me, I had to help her instead.**

**How could you do this Henry mom asked angrily before she saw the crook who police caught in 2 seconds.**

# Category Y – complexity and some skill

**I threw another glance at my friend to see if he understood the question, but he did not understand a thing either, it seemed. Could you take the question again murmured my friend gently.**

**High variation and complex sentence structures**

**or**

**Reiterations and reductive language as a stylistic technique**

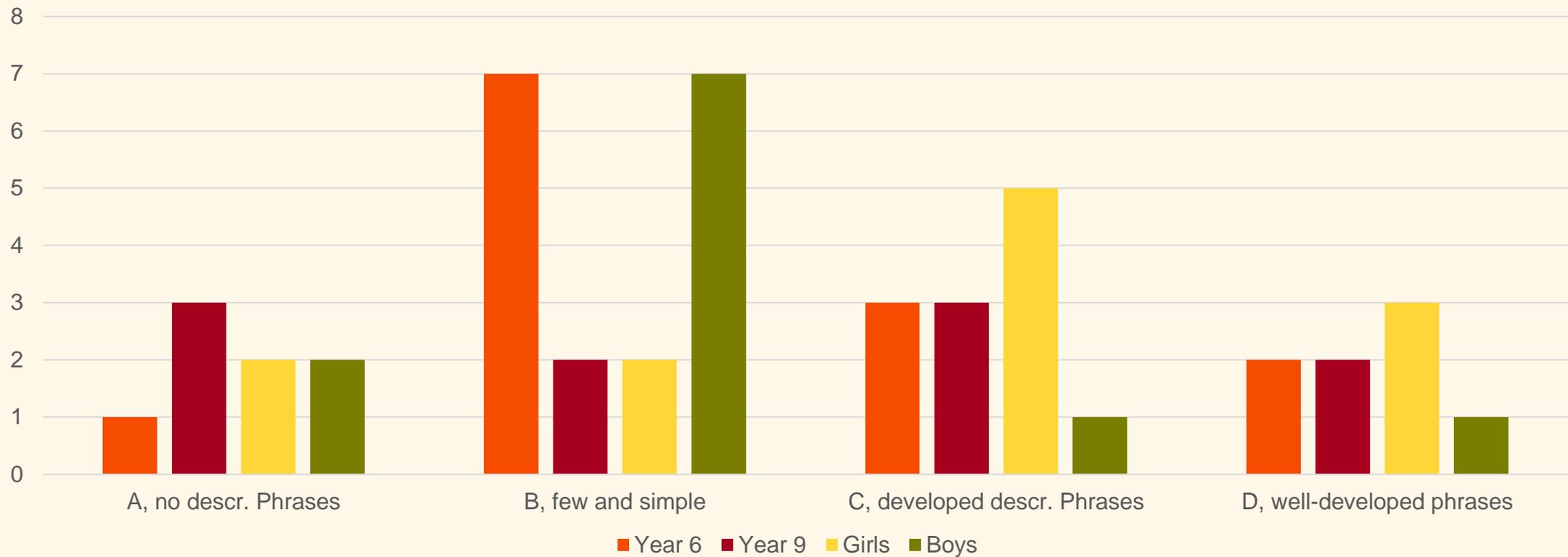
**The school building stood there, so gray and casual. Yet she was filled with hope as she saw it. Just in case it was time today. Maybe she would dare, finally after all these years of waiting. Maybe, maybe not.**

# Category Z – high complexity and skill

- Good variation in sentence structure and word choice
- Lines more brief than reports of events
- Variation in sentence structure
- Intentional exclusions of subjects
- Consistent language use

**"It would be best for everyone if I made them the service, to let me go," thought the old woman, whose hand shook more than usual. The hand that was slowly stretched out on the night table. The hand that, with enormous effort, managed to open the can with those tablets. Those that people talked about 'be careful with these, Sigrid ".**

# Contents – descriptive phrases



# Category B – few, simple descriptions

**The  
applause  
bellowed  
like thunder.**

**The  
applause  
turned into  
laughter.**

**There may be  
dark  
moments in  
life.**

**I'm not so tall I  
have dark long  
hair and blue  
eyes.**

Simple descriptive phrases

Few sensory connections

# Category C – developed descriptive phrases

**Then the audience  
laughed so loudly  
that it was heard all  
the way into my  
blood.**

**I felt how my heart  
started to pound  
hard.**

**We heard the door  
slam behind one of  
those who worked  
in the store and how  
the key was turned.**

Several sensory connections

Metaphors, physical reactions

Misconceptions, overgeneralizations

**The street lights outside a  
window showed me that  
the time was half past  
twelve at night.**

# Category D – well-developed descriptive phrases

**The puddles after the storm had not yet evaporated completely, and my shoes are soon soaked. Of course I did not take my boots today!**

Several sensory connections  
Mental images

**She stared down at the table with glowing cheeks.**

Well functioning visual descriptions  
Implicit descriptions

**Bright, curly hair, brown eyes with long tight eyelashes and a little subtle smile that had always made her wonder what he was thinking of.**

Cues meant to evoke an emotion  
Complex sentence structure in descriptions

**She froze, as she saw the pills dissolving in the glass.**

# High quality – common characteristics

Textual quality		Productivity	Sentence structure	Contents	Number of nouns abstract > concrete
<b>Year 6</b>  3 girls 2 boys	A	High	High	High	
	E		Very high	High	
	G	Very high	Very high	Very high	
	H	Very high	Very high	High	
	J	High	High	Very high	
<b>Year 9</b>  3 girls 2 boys	Q	High		High	
	R	Very high	High	High	X
	Z	Very high	High	Very high	X
	Ä	High	High	High	X
	Ö	Very high	Very high	Very high	

# Level of abstraction

## Abstract words – abstract content

Text R

Nouns: Abstract > concrete

Personal experience

Own perspective

Text Ö

Nouns: Concrete > abstract

Imagination

Distant perspective

# Concluded results

- Different aspects of quality in texts are in many ways related.
- High word count is an advantage, but not the only important quality aspect.
- Age and development have impact on productivity and level of abstraction.
- Different ways of describing correspond with each other.
- Presence of descriptions basically follows productivity.
- Texts of high quality in sentence structure and descriptive language, are slightly more often written by girls.
- Misconceptions are most common in descriptions referring to the visual sense.

# Misconceptions

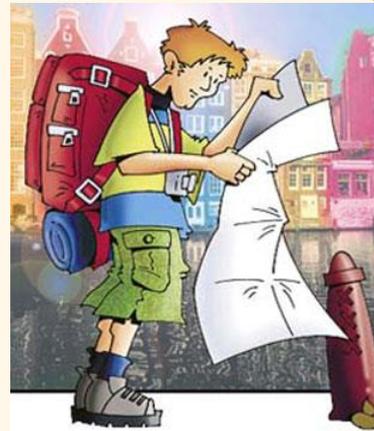
Mostly found in texts of high quality

Not in the group with highest word count and most well-developed descriptive phrases

Let's look at a few ...

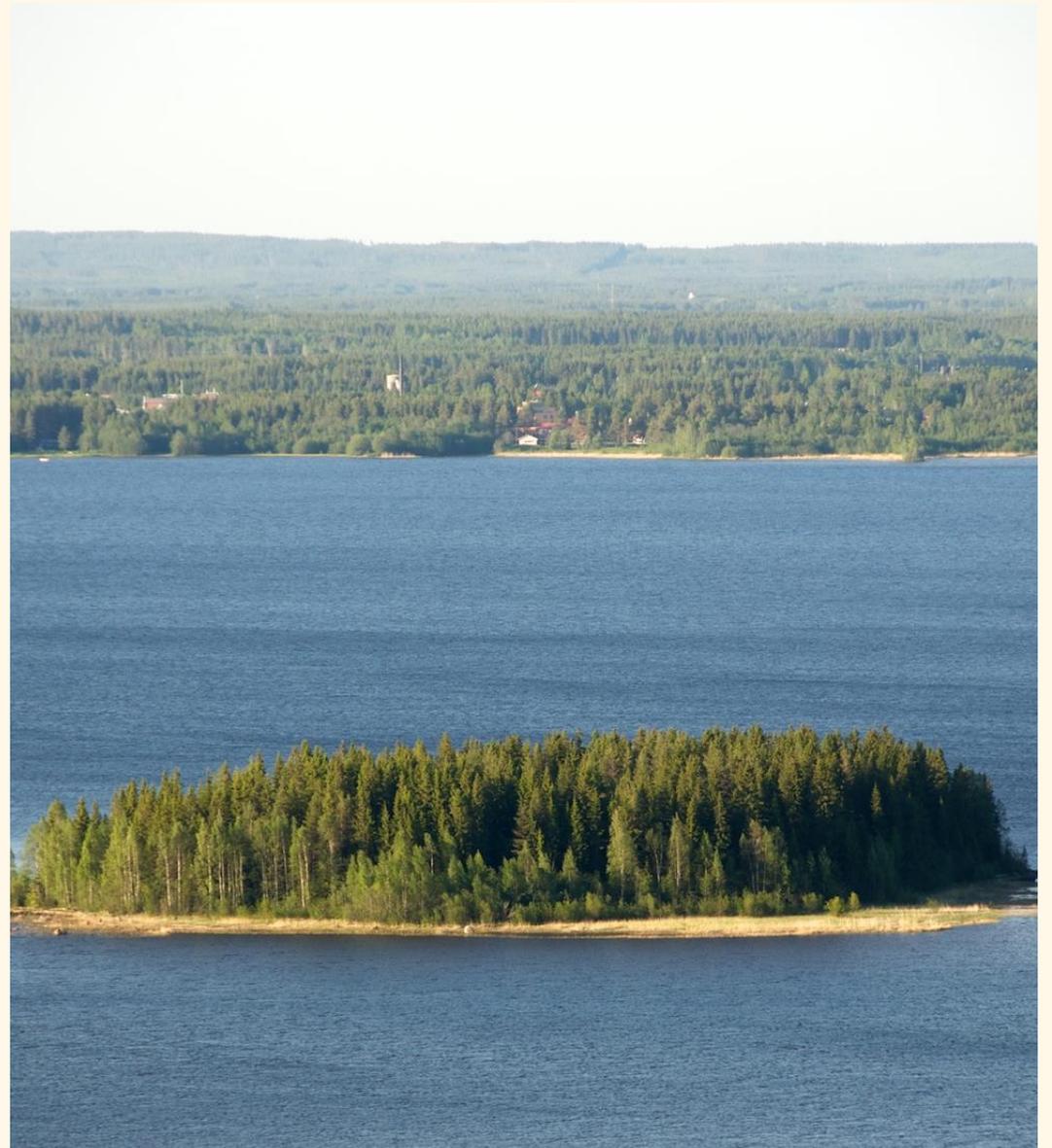
# A few examples ...

“I said back and then it walked on its hind legs. Then I said front, and then it walked on its forelegs like a human being.”





“In the middle of the lake is an island where someone put their cows out to pasture. We'll go (walk) there sometime, Mom has promised.”



# Implications for teaching

- Explain concepts that are perceived as concrete by sighted students
- Focus on all senses while teaching
- Use several senses in descriptive language  
Enhance senses other than vision

**She stared down at the table with glowing cheeks.**



- A nutritious linguistic diet is beneficial to all (Gibbons, 2002)

# Implications for teaching

- Misconceptions – a golden opportunity for teaching concepts
- Adapt teaching to the student's writing development
- High, realistic expectations
- Blindness can complicate writing development somewhat but is NOT an obstacle to become a skilled writer

# Questions left ...

Connections:

Degree of blindness

Onset of blindness

Causes of blindness

Quality aspects in a deeper sense

Different textual types

# Thank you for taking interest!

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