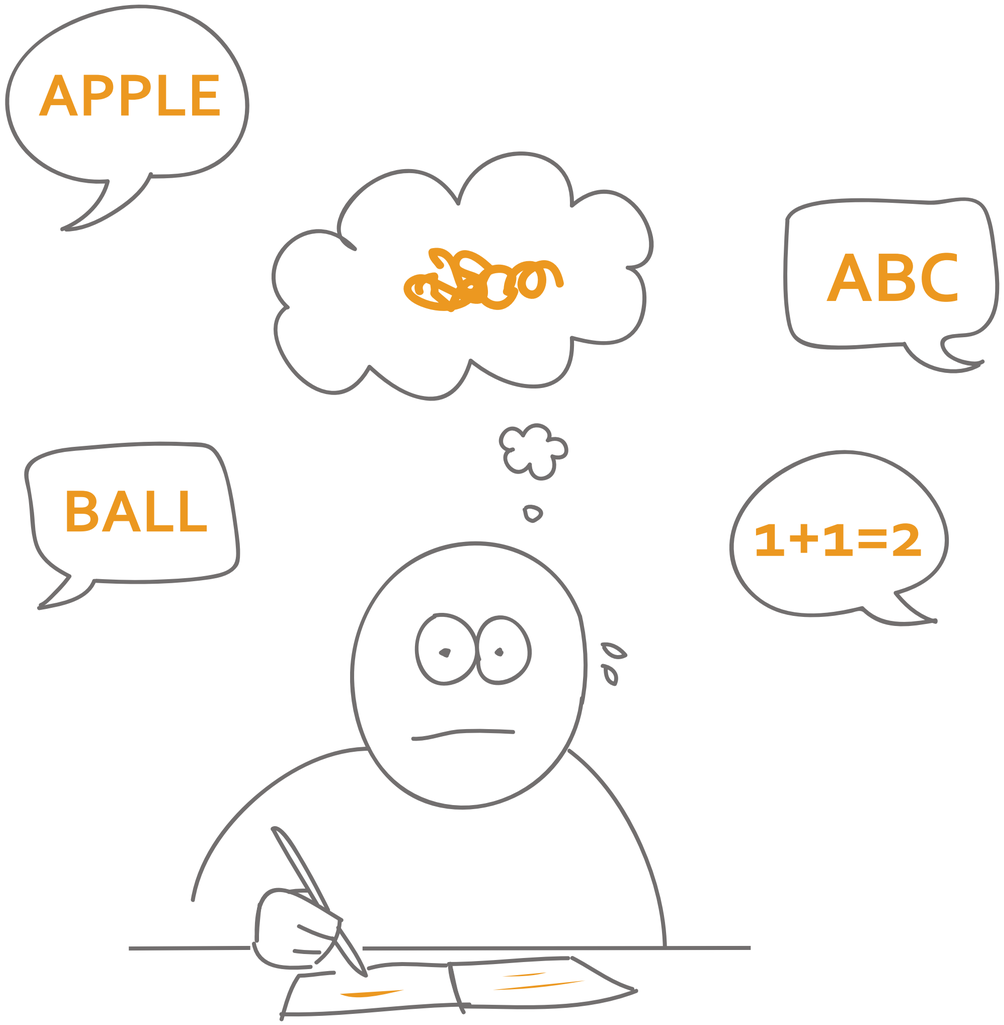
Dyslexia

Project Guide: Prof. Nina Sabnani
Project done by: Keerti Chowdhry 136340001

Knowing Dyslexia

- Common perceptions
- In-depth study



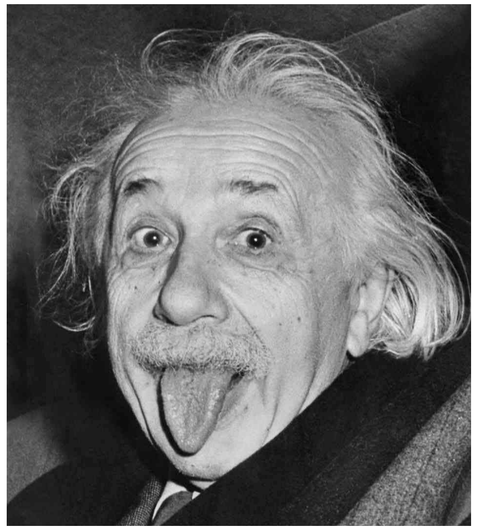
Dyslexia

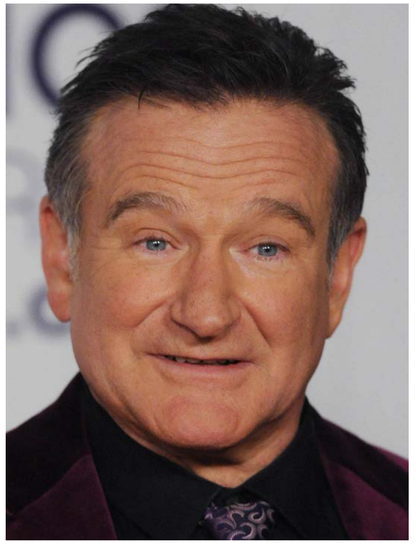
There is an acute difficulty in decoding the written word. People suffering from Dyslexia are also often unable to comprehend what they just read.

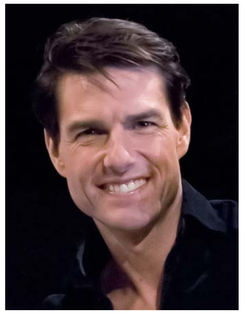
Dyslexia is a neurological disorder, often with genetic origins.

Findings from a research in MIT spearheaded by Gadi Geiger and Jerome Lettvin prove dyslexic people to have better peripheral vision than normal people.

Upsides







Sources & Findings

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child development center

- Audio over written preference
- ‘Big Picture’ viewers
- Difficulty in comprehension
- Many ‘Specific’ learning disabilities
- Indian scenario

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Problem Areas

Writing, forming letters

Problem Areas

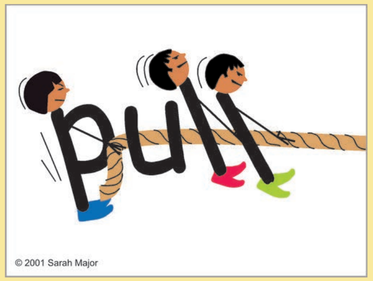
Remembering spellings & comprehension

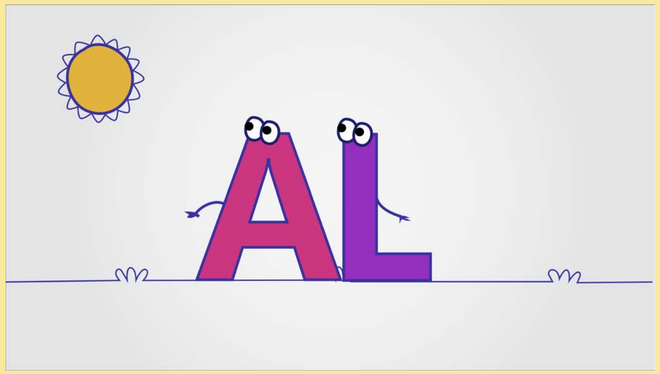
Understanding poetry, indirect speech

A writing app to train the fine motor skills of writing for children of 4-8 years.

Concepts

An animated disctionary that helps children remember spellings & meanings





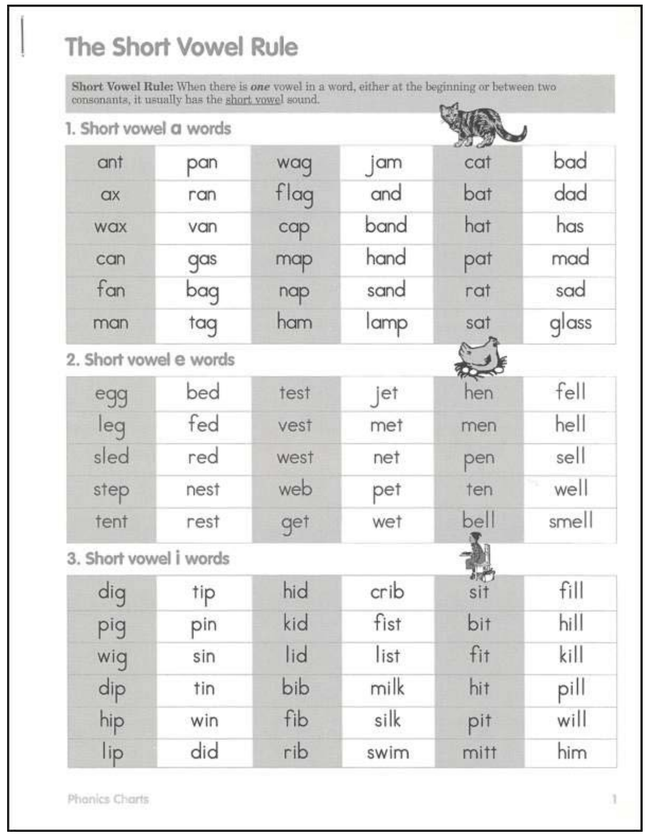
Animated poetry, proverbs with expressive typography & imagery

Final Concept

- Animated Dictionary
- Help with spelling as well as comprehension
- Integrate visual of spelling with meaning
- Use of both audio visual to aid memorability

Popular Teaching Methods

Phonics



The Short Vowel Rule

Short Vowel Rule: When there is ***one*** vowel in a word, either at the beginning or between two consonants, it usually has the short vowel sound.

1. Short vowel a words

ant	pan	wag	jam	cat	bad
ax	ran	flag	and	bat	dad
wax	van	cap	band	hat	has
can	gas	map	hand	pat	mad
fan	bag	nap	sand	rat	sad
man	tag	ham	lamp	sat	glass

2. Short vowel e words

egg	bed	test	jet	hen	fell
leg	fed	vest	met	men	hell
sled	red	west	net	pen	sell
step	nest	web	pet	ten	well
tent	rest	get	wet	bell	smell

3. Short vowel i words

dig	tip	hid	crib	sit	fill
pig	pin	kid	fist	bit	hill
wig	sin	lid	list	fit	kill
dip	tin	bib	milk	hit	pill
hip	win	fib	silk	pit	will
lip	did	rib	swim	mitt	him

Phonics Charts 1

Chart 12		
ch	in	church
sh	in	ship, wish
th	in	thick, with
th	in	this
wh	in	whale
wh	in	who

Chart 16					
kn	in	knee	ie	in	brownie
gn	in	gnat	ey	in	key
a-	in	asleep	ey	in	they
a	in	banana	ought	in	thought
o	in	son	aught	in	taught
c	in	race	igh	in	night
ea	in	heat	y	in	myth
ea	in	head	g	in	giant
ea	in	great	dge	in	fudge

The Whole Word Method

CONCRETE IMAGE	SOUND OF THE WORD (have them say the word out loud)	CONCRETE VISUAL IMAGE OF THE WORD (have them print the word)
	'APPLE'	APPLE

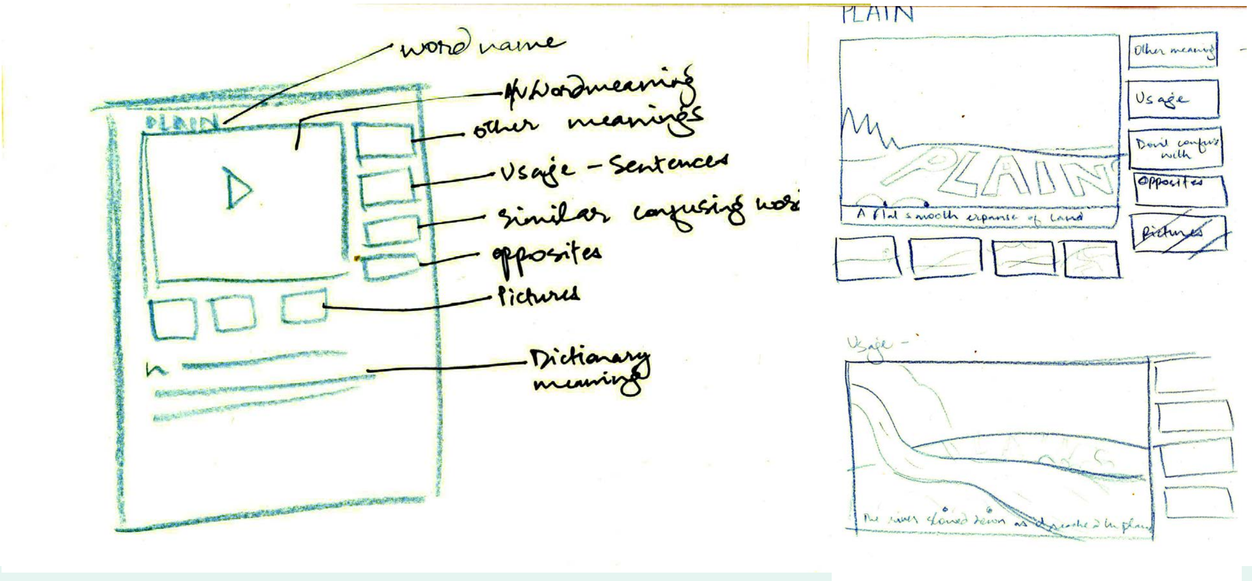
can	come
find	go
help	is
jump	look

Sight Word Guess Who? Game board

yes	eat	all	saw	good
so	will	have	am	what
who	too	get	he	now
but	at	did	into	like
that	out	are	was	no

- Whole sentence model
- Multi sensory approach

Initial Wireframes



PLAIN

Flat, smooth expanse of land

Plain
(noun)
An extensive, relatively level area of land.

MOUNTAIN

A high and steep projection on the earth's surface

Mountain
(noun)
1.
a natural upward projection of the earth's surface, higher and steeper than a hill and often having a rocky summit.
(as modifier): mountain people, mountain scenery
(in combination): a mountaintop
2.
a huge heap or mass: a mountain of papers
3.
anything of great quantity or size

PLAIN

Something simple, without any decoration

Plain
(adjective)

clear or distinct to the eye or ear
clear to the mind; evident, manifest, or obvious

conveying the meaning clearly and simply; easily understood
plain talk.
downright; sheer; utter; self-evident
free from ambiguity or evasion; candid; outspoken:
the plain truth of the matter.

without special pretensions, superiority, elegance, etc.; ordinary:
plain people.
not beautiful; physically unattractive or undistinguished:
a plain face.

Refined Wireframe

Word Name

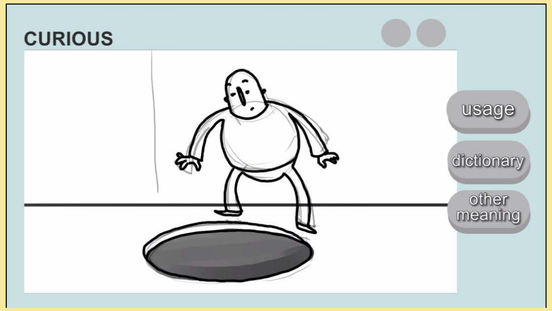
Simplified Definition with Visual

Usage

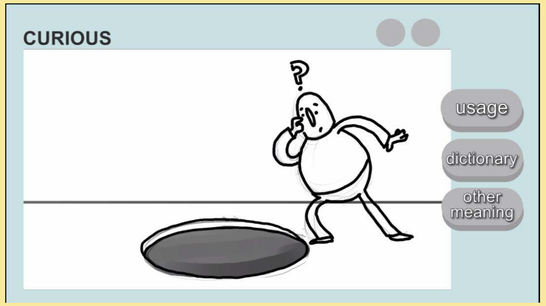
Dictionary

Other Meaning

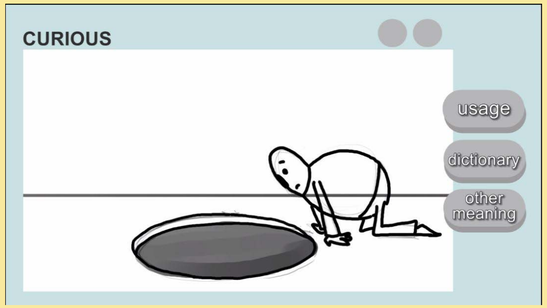
screen 1- Definition



Voice over <'having a desire to know...'>



Voice over <'or find out'>

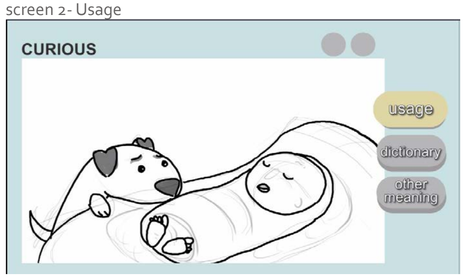


Voice over <'something.'>

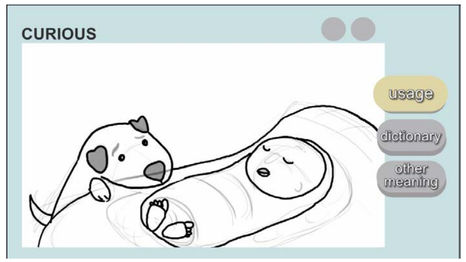
Feedback

Voice over <'Curious'>

screen 2- Usage

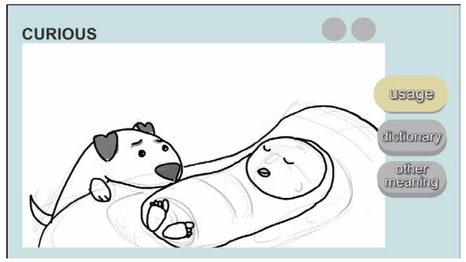


Voice over <'Timmy was'>



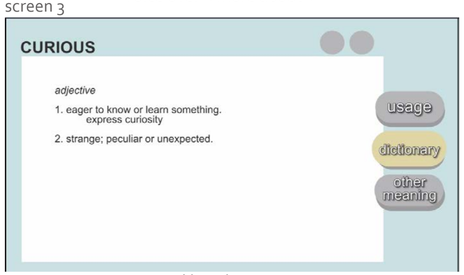
Voice over <'Curious to know'>

Voice over <'more about '>



Voice over <'the baby'>

screen 3



No voice over

- Too many options
- Appearance still confusing
- No uniformity in characters
- Confusing typography
- Better selection of words

Word Selection: Dolch

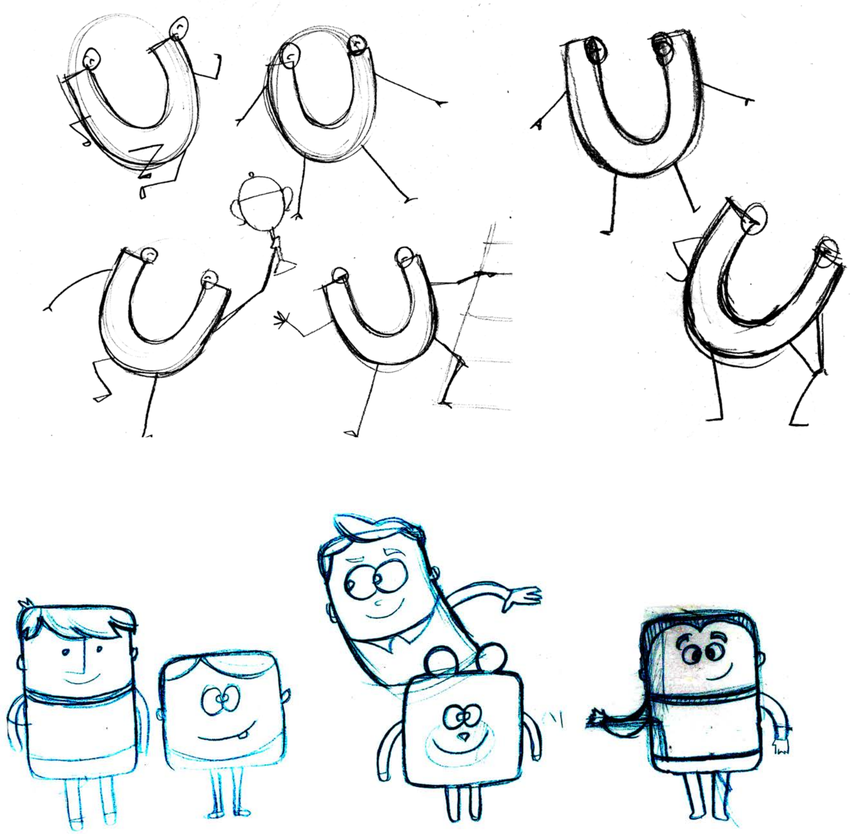
The Dolch word list is a list of frequently used English words compiled by Edward William Dolch, a major proponent of the "whole-word" method of beginning reading instruction.

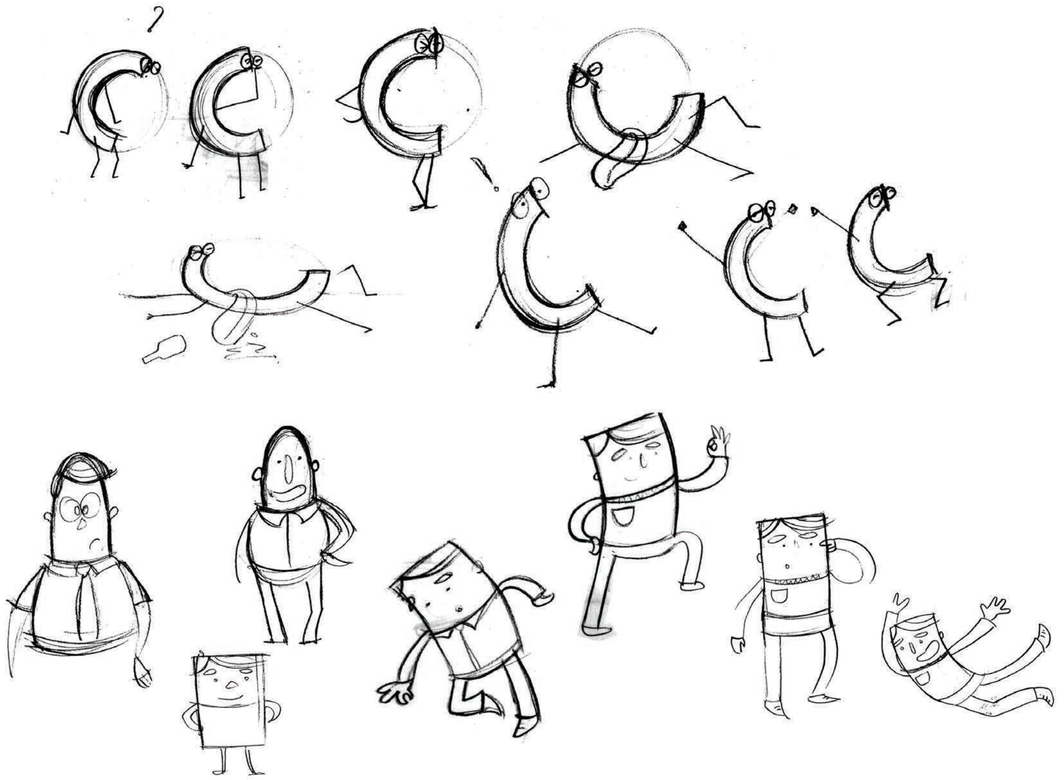
Dolch words, or sight words, provide an excellent base for reading at an early age. They are often called sight words because some of them can't be sounded out, and need to be learned by sight.

2nd Grade:

always, around, because, been, before, best, both, buy, call, cold, does, don't, fast, first, five, found, gave, goes, green, its, made, many, off, or, pull, read, right, sing, sit, sleep, tell, their, these, those, upon, us, use, very, wash, which, why, wish, work, would, write, your

New Explorations





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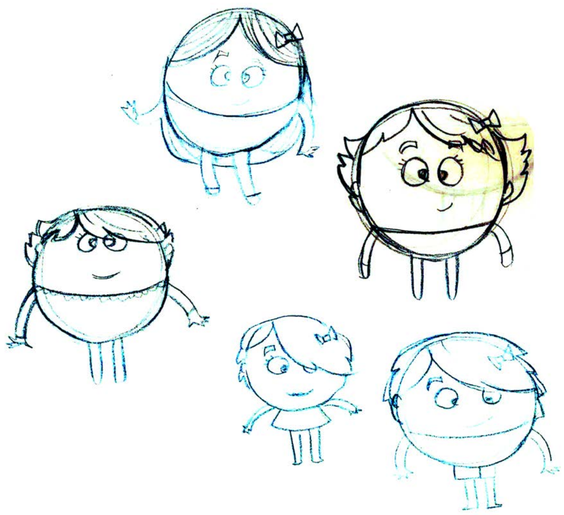
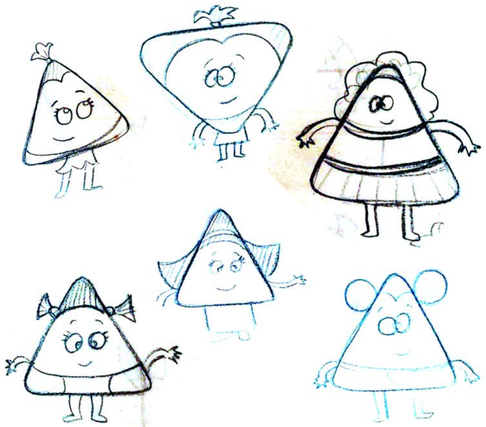
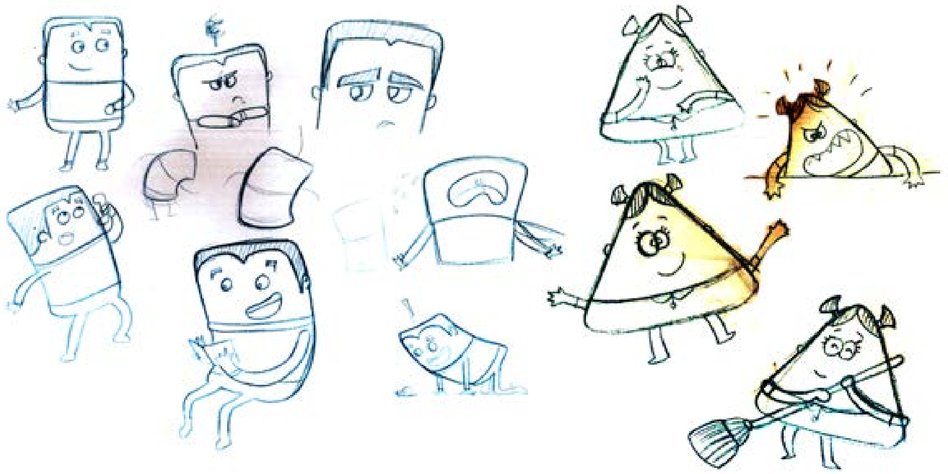
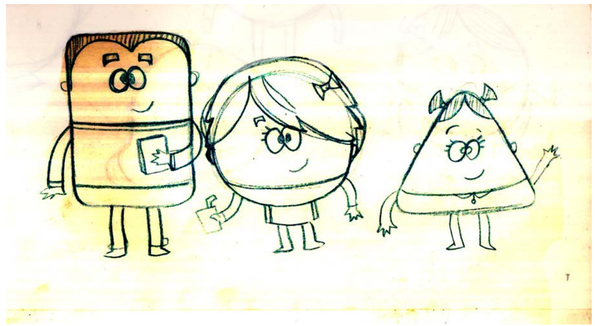
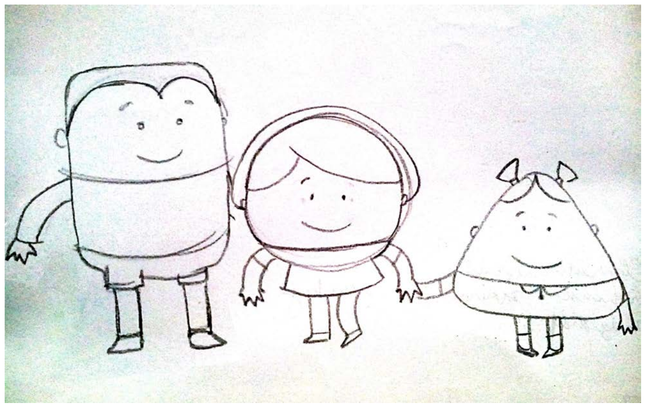
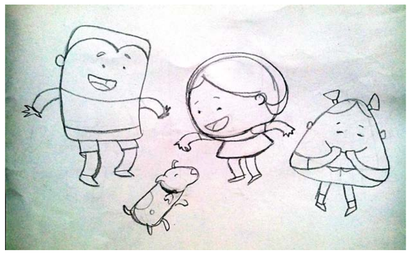




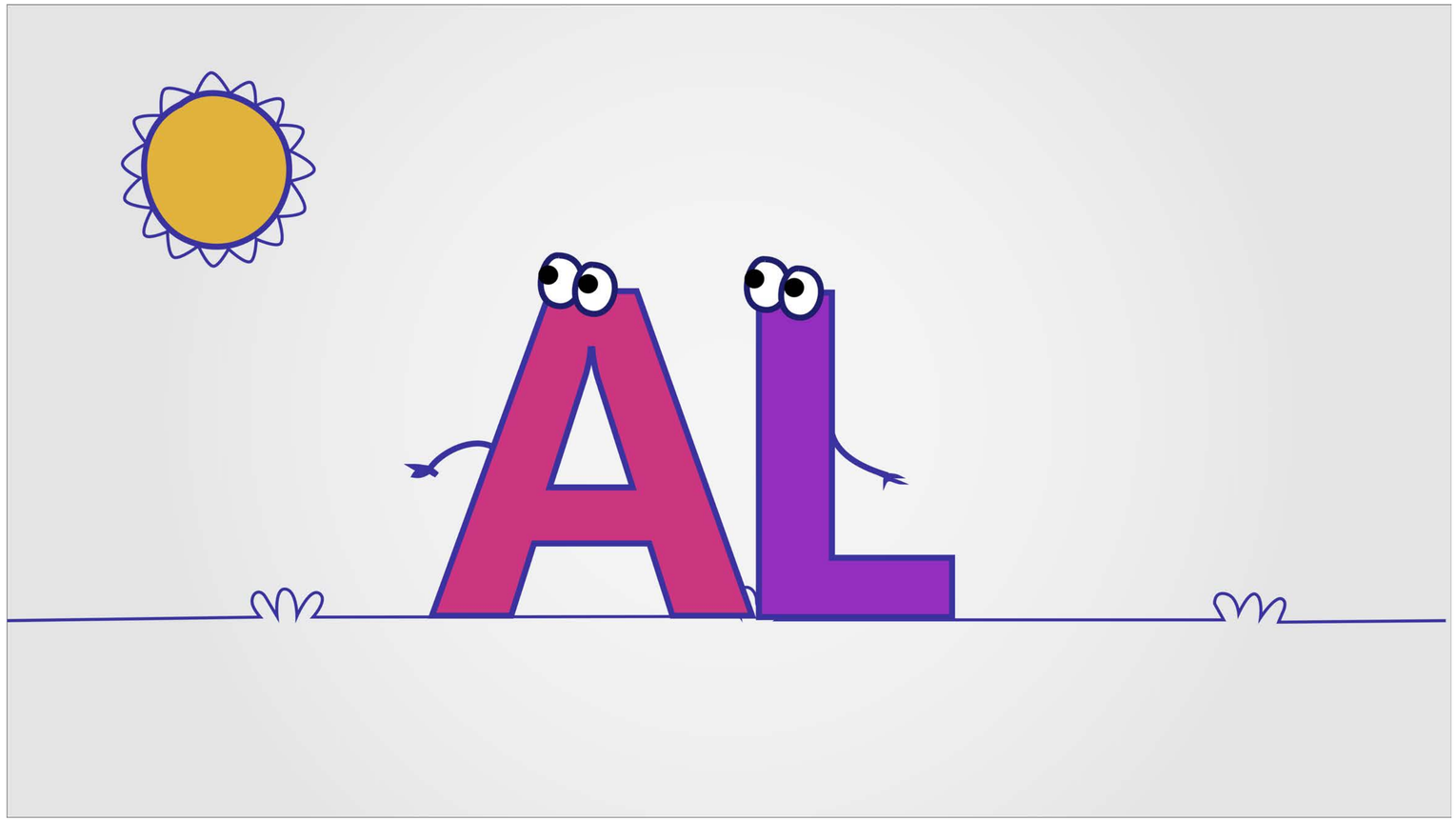








Second Iteration



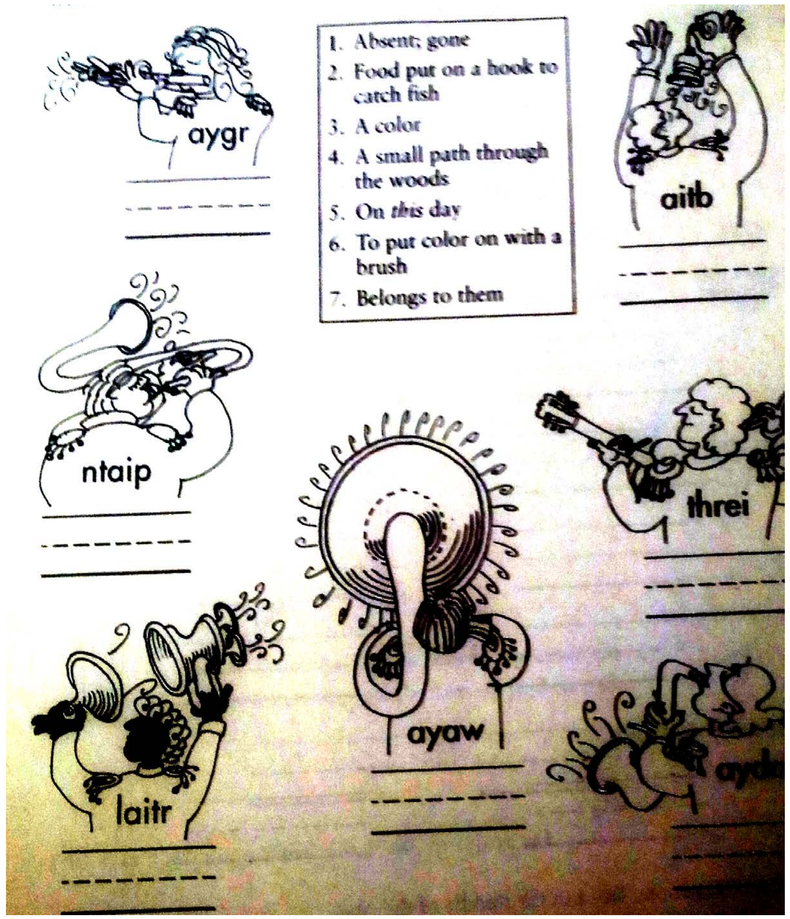
Feedback

- Simpler than before
- All caps is not recommended
- Needs stronger visual cues
- Participatory design

In the normal setting it would be uncommon for one to find words written in all caps, all the time. We have to train kids for what they would face most in life, which is why all learning resources at our center are mostly in small letters.

-Ms. Veena Basu

Back to Books



calendar

spade

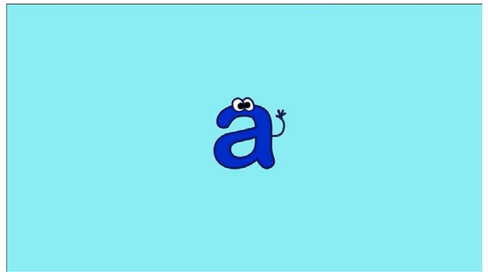
chair

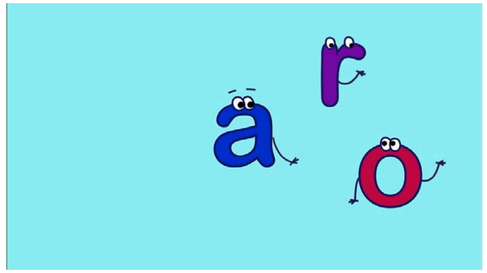
IV. **Break the Code.** Use the code to write the spelling words.

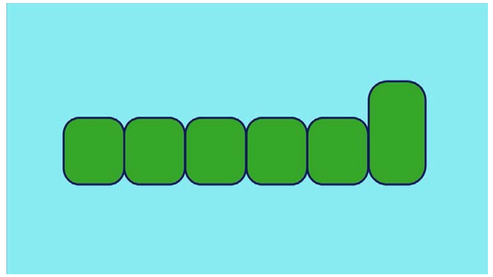
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
p	e	g	s	v	k	x	m	c	f	h	t	i	u	r	b	a	o	q	d	z	n	l	y	w	j

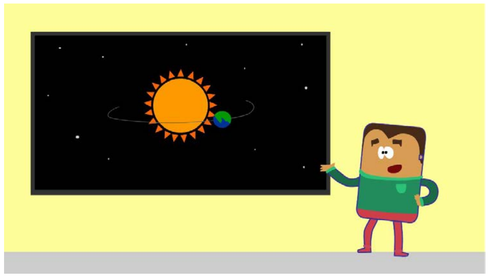
a. qikb _____
b. eqvmdk _____
c. pbkqeb _____
d. daqtb _____
e. bdlqpwmdk _____
f. coqlbjnw _____
g. oqlmvc _____
h. qvgmrnd _____
i. kqdlb _____
j. dqwbdabodrv _____
k. wriqlb _____
l. tmdqdlbo _____
m. kbqtqikb _____
n. dqvtymik _____
o. tbpqlb _____
p. aqebhbvl _____
q. iqwbvtqo _____
r. bdlqlb _____
s. ikqhamrv _____
t. pqlkb _____

Third Iteration







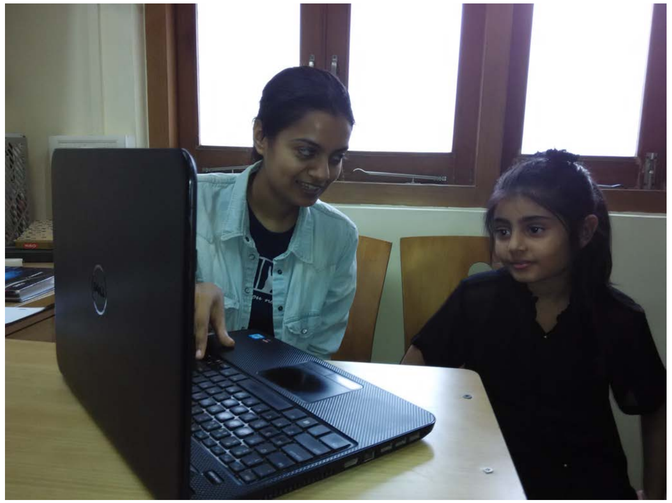


In the normal classroom context, teachers generate a word list after reading a story or a chapter from the English text. It is automatically assumed that students can break up the words into smaller components and learn the spelling. But this task is very difficult for the learning disabled, a fact that many teachers simply fail to understand.

-Onika Nakra

Evaluation

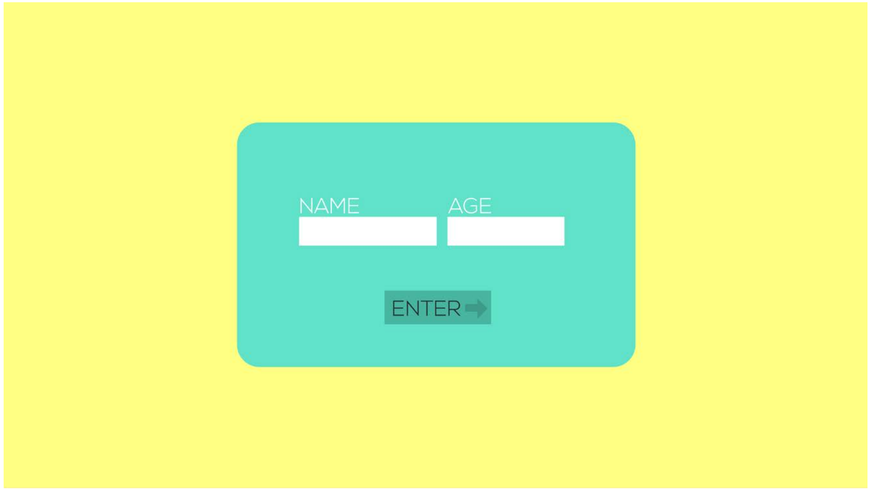
- Reproducing the correct spelling
- Orally as well as verbally
- Usage of word in own sentence
- Retention of spelling after some time

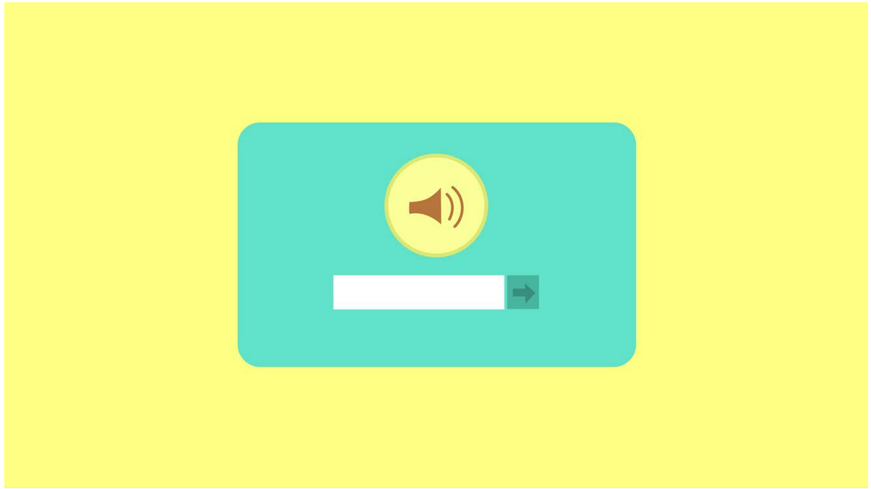


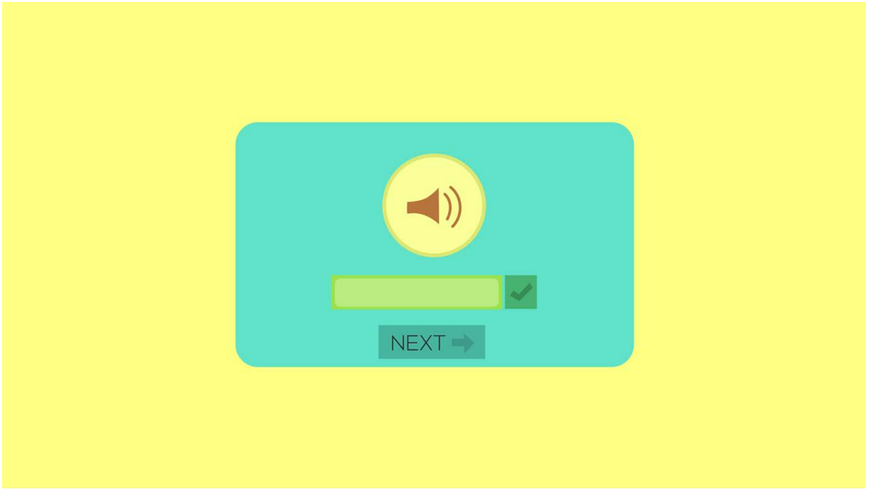
Observations

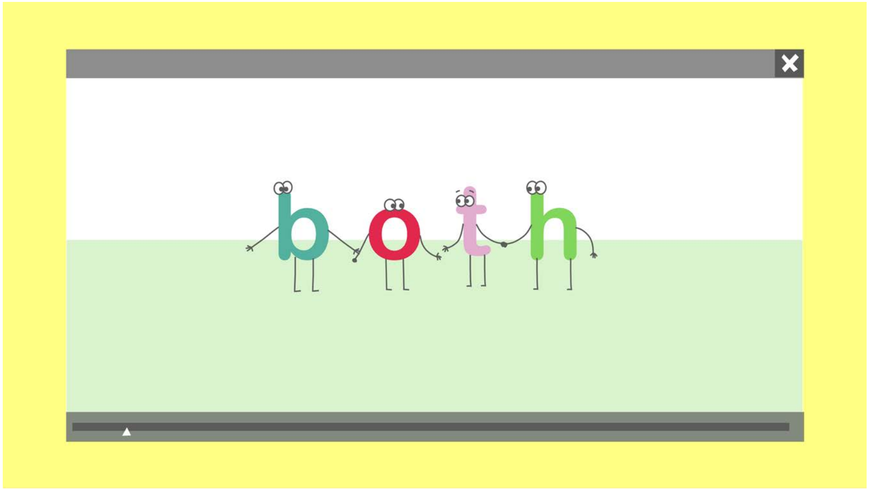
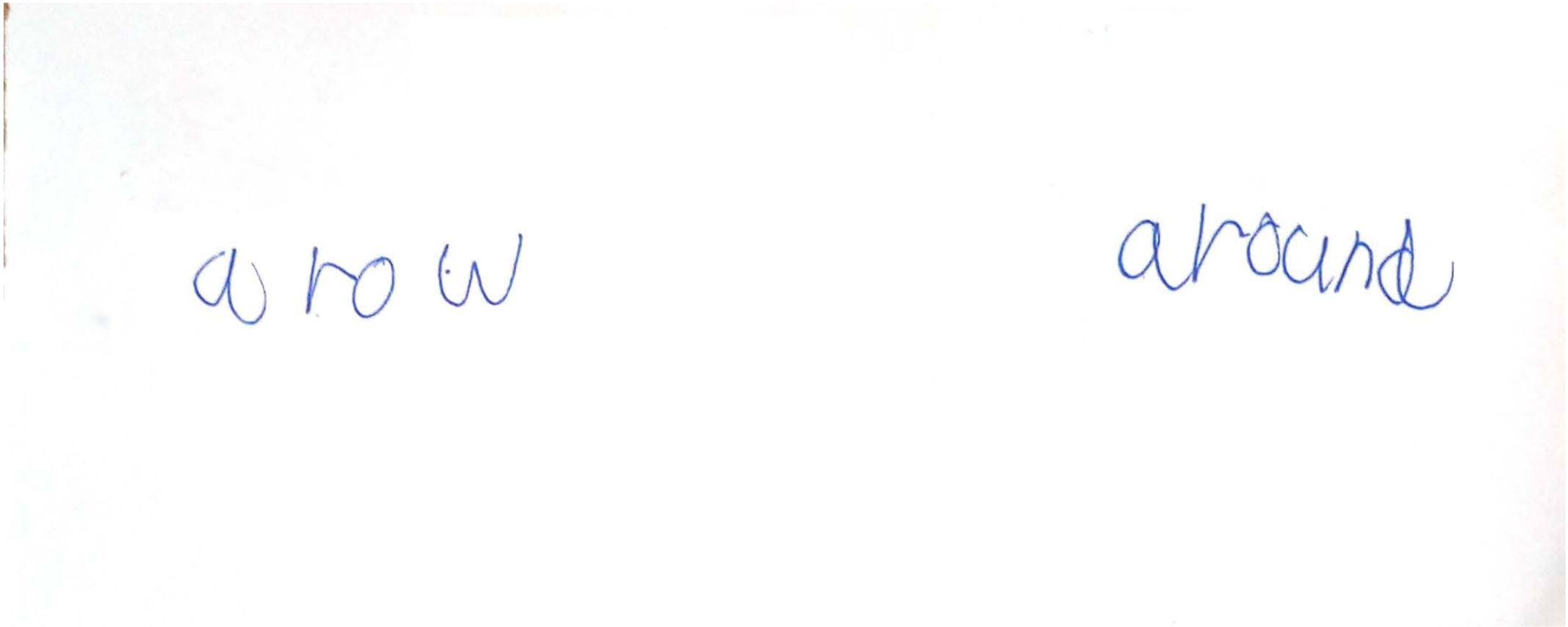
- Timing
- Colours
- Age-group

‘Lexy’ The Spelling Game









Thank you!