TOWARD DIGITAL STORYTELLING TECHNIQUES: WHY AND HOW?

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“INSTEAD OF BANNING DEVICES, WE SHOULD BE DEMANDING BETTER APPS BUILT ON SOLID RESEARCH” (OLIVIA SOLON, BBC).
A new vision for digitizing picture books

- based on 12+ years of scientific research
- spectacular results in education
- affordable production techniques - do more with less
- immersion through games and gimmicks
- immersion through digital storytelling techniques
Scoring below 40th percentile

583 kindergarten children from 136 schools
Multimedia principle:
people learn better from words and pictures than from words alone
Temporal contiguity

Kijk toch eens hoe uitgelaten de giraffen over de vlakte rennen, probeerde mama Kangoeroe. Kleine Kangoeroe vond de giraffen geweldig.
Pan & Zoom
## Filmlike vs. static books

<table>
<thead>
<tr>
<th>Study</th>
<th>n</th>
<th>EF (SE)</th>
<th>84%CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verhallen 2006</td>
<td>20</td>
<td>.95 (.47)</td>
<td>.25 / 1.57</td>
</tr>
<tr>
<td>Smeets 2015</td>
<td>69</td>
<td>.06 (.24)</td>
<td>-.27 / .40</td>
</tr>
<tr>
<td>Takacs 2016</td>
<td>38</td>
<td>.25 (.33)</td>
<td>-.22 / .70</td>
</tr>
<tr>
<td>Sari 2017</td>
<td>18</td>
<td>1.03 (.98)</td>
<td>.26 / 1.69</td>
</tr>
</tbody>
</table>

Dependent measure: story comprehension
Modality principle

- Music and sound, another non-verbal addition
- may interfere with learning
- because non-verbal (music) and verbal information are in the same modality
Segmentation principle

0 People learn better when a multimedia message is presented in self-paced segments rather than as a continuous unit.

0 That is, the learner has control about the speed in which new information is available.
Segmentation principle
Effects on story comprehension

N = 19
In summary

0 E-books offer new chances for initiating learning, especially in children at risk for attention problems.
0 We begin to understand what helpful digital storytelling techniques are.
0 Designers should be aware of multimedia learning principles such as:
  0 Temporal contiguity principle
  0 Modality principle
  0 Segmentation principle
  0 Coherence principle
NOT SURE IF THANK YOU FOR YOUR ATTENTION

OR FOR PRETENDING TO BE INTERESTED