Lisbeth M Brevik

Mapping Tests:
Comparing Upper Secondary Students’ Reading Skills in L1 and L2
Background

• Nationally distributed mapping tests
  – L1: reading literacy in Norwegian (paper)
  – L2: reading literacy in English (digital)

• Upper secondary school
  – first year (15-16 years old)

• Same population as PISA 2012
  – PISA in the spring (4,686 students)
  – Mapping tests in the autumn (60,000 students)
Crosslinguistic reading L1-L2

L1

Decoding
Reading (fact)
Reading (fiction)

L2

Language (GR + ST)
Reading (FI, UM, MI)
Method

- Secondary data collection
  - L2 from Norwegian Directorate
  - L1 from schools & counties
- Quantitative analysis (SPSS)
- Merging the two datasets
  - Regression analysis
  - Factor analysis
  - Reliability analysis
Research Questions

1. To what extent can first year upper secondary students’ reading skills in English (L2) be explained by L1 literacy and L2 language knowledge?

2. How do these students' reading literacy vary across L1 and L2?
Compensatory theory of L2 reading
Elizabeth B. Bernhardt, 2011
Findings I

- L1 literacy
- L2 language
- Unexplained variance

\[ N = 10.331 \]
Findings I (cont.)

1. 27% explained by L1 literacy
2. 32% explained by L2 language knowledge
   – grammar, spelling & structure (cohesion)
3. 41% unexplained variance
   – 0.03% gender & study programme
Discussion I

• Our findings support Bernhardt’s compensatory theory
  – regression analysis

• However, how do we separate L2 language knowledge from L2 reading literacy?
  – factor analysis

• Does English (L2) reading literacy consist of component reading skills or one competence?
  – The students read and use language in tandem
Findings II

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<td>L2 low</td>
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<td>L2 high</td>
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«The outliers is where the richness of the data lies»
Aleidin Moeller at ALTE 2014
Findings II (cont.)

- Boys: L1 low - L2 high
- Girls: Vocational study
- General: L1 high - L2 low

Boys: 90% L1 low - L2 high, 10% Vocational study
Girls: 50% Vocational study, 50% General

Legend:
- Blue: Boys
- Light blue: Girls
- Red: Vocational study
- Dark blue: General

X-axis:
- L1 low - L2 high
- L1 high - L2 low
Discussion II

• Why do especially boys read significantly better in L2 than in L1?
Conclusion

• The shift
  – from testing what the students know about language to assessing what students can do with language
  – e.g. Aleidine Moeller at ALTE 2014

• The challenge
  – L1 literacy and L2 language knowledge are main contributors to the students’ L2 reading literacy
  – the majority read equally well - or poorly – in L1 and L2
  – a minority read significantly different in L1 and L2
  – How can test scores be used to make inferences about the needs of student growth - to improve learning and instruction?
Thank you

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