Comparing reading strategies in L1 and L2 academic reading

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AcqVA
Acquisition Variation Attrition
Background And Motivation

• Majority of material published in English (and often not translated);

• University students, globally, read the same amount of information in the same amount of time;

• Where English is not the native language, this is done in a second language;
Background And Motivation

Are non-native English-speakers at a disadvantage when they study in English?
The situation in Norway
The situation in Norway

- Norwegians have some of the highest levels of English proficiency among non-native speakers (Bonnet, 2004; Education First, 2019);
- University course material mostly in English;
- Reading and understanding university level academic English texts without assistance;
The situation in Norway

- At least 1/3 of Norwegian students starting university would not pass an English proficiency test used for admission to English speaking universities (Hellekjær, 2009, 2012);

- ... even though much of the reading these students need to do is in English;
Overall aim of the project

• Investigate how well Norwegian students are prepared for reading academic English at university

• Where do they encounter difficulties?

• What coping strategies do they use to help with their reading?
**Metacognitive awareness**

- Awareness of what one is doing during reading;
- Being able to recognize when you’re not understanding what you’re reading;
- Undertake reading strategies to repair understanding;
- Very important for successful reading;
- Particularly important in L2 reading (unfamiliar vocabulary, etc);
Reading strategies

• Deliberate actions undertaken to improve understanding;

• For example:
  • Using tables and figures to help with understanding the text;
  • Guessing the meaning of unfamiliar words;
  • Recognising when you lose concentration and re-reading;
  • Critically analyzing information in the text;
Survey of Reading Strategies (SORS)

• Developed to measure metacognitive awareness in academic reading (i.e. reading textbooks and other academic material) (Mokhtari and Sheorey, 2002)

• Participants are asked to rate how often they use each of 30 reading strategies on a 5-point Likert scale (never – always)

• Divided into 3 sub-scales: Global, Support and Problem-solving strategies
Participants are asked to rate how often they use each of 30 reading strategies when reading academic texts on a 5-point scale.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have a purpose in mind when I read.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I take notes while reading to help me understand what I read.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I think about what I know to help me understand what I read.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I take an overall view of the text to see what it is about before reading it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>When text becomes difficult, I read aloud to help me understand what I read.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Mokhtari & Sheory, 2002
Categories of strategies

1. Global reading strategies (13 items): higher-order items relating to analysis of the text as a whole, e.g. ‘I think about what I know to help me understand what I read’ and ‘I have a purpose in mind when I read’
Categories of strategies

2. Problem-solving strategies (8 items): focus on resolving difficulties encountered while reading, e.g. ‘I try to get back on track when I lose concentration’ and ‘when text becomes difficult, I pay closer attention to what I am reading’
Categories of strategies

3. Support strategies (9 items): practical strategies used to support understanding, such as using reference materials or underlining important information
Who uses the most reading strategies?

• Reading strategies used more by skilled readers because they may be good at reading;
• Reading strategies used more by L2 readers to repair gaps in understanding because they are struggling with reading;
Who uses the most reading strategies?

Wait – isn’t this a contradiction???
Types of strategies

*Skilled, effective readers with high proficiency*: Higher-order strategies

- Targeted reading, critical analysis of information;

*Struggling readers*: Lower-order strategies

- Need help with decoding;
- Use dictionaries to look up unfamiliar vocab;
- Rely more on translation when reading in L2;
Reading strategies in L2 reading

• Research suggests that effective use of reading strategies can help compensate for a lack of L2 proficiency (Carrell, Pharis, & Liberto, 1989);

• Reading strategies are reported to be used at a higher rate when reading in L2 than L1 (Alsheikh & Mokhtari, 2011; Kong, 2006; Mokhtari & Reichard, 2004; Sheorey & Mokhtari, 2001)
Why it’s important

• Instruction in metacognitive strategies has been shown to improve reading 
  (Bannert, Hildebrand, & Mengelkamp, 2009; Huang & Nisbet, 2012)

• Teaching students that problems can arise during reading and that there are 
  strategies to overcome these can be more important to successful reading 
  than teaching vocabulary or other aspects of language alone (Block, 1992)
Research aims for this study

- Suggestion that inefficient strategy use may be one explanation for Norwegian students experiencing difficulties with reading academic English texts
- Wanted to compare how these students use reading strategies in L1 and L2
Research questions

1. Do the Norwegian students in this study use different strategies, or use them at different frequencies, when reading in L1 and L2?

2. How does the use of reading strategies by these students compare with previous research on students in other countries?

3. Is there a relationship between metacognitive awareness and self-ratings of reading proficiency for the students in this sample?
Method

Participants:
316 students at a Norwegian university
Norwegian as L1 and not English as L1
Range of subject areas with readings in both languages

Instrument:
Survey of Reading Strategies (30 items)
2 versions of the survey: L1 or L2 reading
Reading proficiency self-ratings in both languages
Self-reported reading ability in L1 and L2
RQ1. Comparing reading strategies used for reading L1 and L2 texts

• Participants did not report using reading strategies in L2 at a significantly higher rate overall.

• Interesting contrast to previous studies finding more RS used in L2 reading!

• First 5 strategies were exactly the same.
RQ1. Comparing reading strategies used for reading L1 and L2 texts

Only two strategies were reported at significantly higher rates in L2 than L1:

- reading more slowly and carefully when text is difficult ($p < 0.05$)
- using resources such as dictionaries ($p < 0.01$).
RQ2. Comparing to students in other countries

- Compared with previous research on other student populations around the world, they reported surprisingly low levels of reading strategies for L2 reading.
RQ2. Comparing to students in other countries

• May reflect high levels of L2 reading proficiency -- they don’t need to rely on strategies to decode L2 text

• Possibly indicates that they do not approach reading in English as L2 reading or feel that they should not need to use additional strategies to cope. Maybe reflects expectation that they should be able to read English without difficulties
RQ3. Relationship between metacognitive awareness and self-rated reading proficiency

- Regression analysis was performed to look for associations between reading strategies and perceptions of proficiency.
- Reported reading strategy use explained more variance in self-rated proficiency in L2 than L1.
  - Suggests that awareness of reading strategies is more strongly associated with L2 reading than L1.
  - +ve association with Global and Problem-solving strategies.
  - -ve association with Support strategies.
Multiple regression models

Average grade as a function of reading strategies (by subscale) in L1 and L2
### Average grade as a function of reading strategies in L1 (Norwegian)

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>p</th>
<th>R^2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Global strategies</strong></td>
<td>.35</td>
<td>.16</td>
<td>.24</td>
<td>2.24</td>
<td>.027*</td>
<td>&lt;.001</td>
</tr>
<tr>
<td><strong>Support strategies</strong></td>
<td>.11</td>
<td>.14</td>
<td>.09</td>
<td>0.78</td>
<td>.439</td>
<td></td>
</tr>
<tr>
<td><strong>Problem-solving strategies</strong></td>
<td>-.18</td>
<td>.15</td>
<td>-.13</td>
<td>-1.19</td>
<td>.238</td>
<td></td>
</tr>
</tbody>
</table>

### Average grade as a function of reading strategies in L2 (English)

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>p</th>
<th>R^2</th>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Global strategies</strong></td>
<td>.11</td>
<td>.18</td>
<td>.07</td>
<td>.62</td>
<td>.540</td>
<td>&lt;.001</td>
</tr>
<tr>
<td><strong>Support strategies</strong></td>
<td>.39</td>
<td>.14</td>
<td>.27</td>
<td>2.816</td>
<td>.006*</td>
<td></td>
</tr>
<tr>
<td><strong>Problem-solving strategies</strong></td>
<td>-.47</td>
<td>.18</td>
<td>.26</td>
<td>-2.57</td>
<td>.011*</td>
<td></td>
</tr>
</tbody>
</table>
Discussion of findings

• Similarity of reading strategy use in L1 and L2 probably reflects high levels of proficiency in English reading

• BUT lower self-ratings of reading proficiency in L2 than L1 indicate they are not entirely comfortable reading in English

• AND stronger association between reading strategies and both self-ratings of proficiency and grades for L2 than L1
Discussion of findings

• The high reported use of slow and careful reading as a strategy for coping with L2 reading could go some way to explaining results of previous research showing a slow reading rate for Norwegian students reading in English (Busby, 2015; Hellekjær, 2005);

• Similarity of approach to L1 and L2 reading may reflect expectations (institutional and personal?) of high English proficiency
Limitations

• Only self-reports, measures awareness rather than actual strategy use
• Different types of reading material required for different subject areas
• Still useful for comparison with other populations around the world
Implications

• May be beneficial to give additional support and training in use of these types of strategy to improve academic reading (would also help with L1 reading)
Directions for future research

• Compare with think-aloud protocols to establish actual use of reading strategies

• Think about effects of institutional expectations on approaches to L2 reading

• Test whether there is also a problem with L2 proficiency

1. English vocabulary
2. Reading speed
Hmmm… which reading strategy to use?

For more details:

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References


- Busby, N. L. (2015). *Too cool for school? Sources of English language acquisition, attitudes, and academic reading ability among Norwegian university students.* (Master's thesis), NTNU,


References


## 5 most frequently used reading strategies reported for Norwegian (L1) and English (L2) and mean rates of reported use

<table>
<thead>
<tr>
<th>Reading Strategy</th>
<th>Mean L1</th>
<th>Mean L2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusting reading speed</td>
<td>4.11</td>
<td>4.19</td>
</tr>
<tr>
<td>Trying to stay focused</td>
<td>4.04</td>
<td>4.18</td>
</tr>
<tr>
<td>Paying close attention</td>
<td>4.03</td>
<td>4.09</td>
</tr>
<tr>
<td>Re-reading difficult text</td>
<td>3.97</td>
<td>4.04</td>
</tr>
<tr>
<td>Setting purpose for reading</td>
<td>3.89</td>
<td>3.78</td>
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</table>