Simultaneous interpreting is a remarkably demanding cognitive and linguistic feat. It is thought that interpreters reduce their cognitive load through a number of strategies and enhancements in cognitive abilities. Lexical access is likely one of the affected abilities, as rapid access could free up cognitive resources for other processes. Thus, it has been theorized and demonstrated (Bajo, Padilla, & Padilla, 2000; Stavrakaki, Megari, Kosmidis, Apostolidou, & Takou, 2012) that professional interpreters outperform non-interpreters on tasks of lexical access. What remains unclear is whether this advantage can be developed through training in interpreting.

To address this open issue, we examined the development of lexical abilities in students of Swedish sign language (Svenskt teckenspråk, STS) interpreting and students of conference interpreting. Development in the recently acquired language (STS) was examined cross-sectionally in two cohorts of STS students in Experiment 1. Experiment 2 examined the longitudinal development in the native language (Swedish) with students from both programs who were tested before and after a year of interpreting training. In both cases, lexical decision tasks were used to assess the lexical abilities of the students. Findings of increases in accuracy and decreases in response would provide evidence that enhanced lexical access can be developed through interpreting training.

**Experiment 1**

**Participants:**
- 12 STS students with 1 year of training
- 4 STS students with 2 years of training

**STS Lexical Decision Task:**
Indicate whether the presented item is a real or made-up STS word

<table>
<thead>
<tr>
<th>Real word</th>
<th>Made-up word</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balcony</td>
<td>Balcony with hand shape changed</td>
</tr>
</tbody>
</table>

**Results:**

![Graph showing accuracy and response time for real and made-up STS words with 1 year and 2 years of training](image)

**Discussion:**
Benefits in STS lexical decision are seen in students with an additional year of training. Specifically, students with more training were faster to respond to both real words and made-up words and were better at rejecting made-up words.

**Experiment 2**

**Participants:**
- 6 Sign Language Interpreting students
- 4 Conference Interpreting students

Students were tested twice with an academic year of training between testings

**Swedish Lexical Decision Task:**
Indicate whether the presented item is a real or made-up Swedish word

<table>
<thead>
<tr>
<th>Real word</th>
<th>Made-up word</th>
</tr>
</thead>
<tbody>
<tr>
<td>vagga</td>
<td>vugga</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>'rock' with vowel change</th>
<th>'rock'</th>
</tr>
</thead>
</table>

**Results:**

![Graph showing accuracy and response time for real and made-up Swedish words](image)

**Discussion:**
After a year of training in interpreting, either sign language or conference, students showed no difference in their accuracy at judging Swedish real and made-up words, but there was a suggestion that they performed the task faster.

**Conclusion**

These two experiments in conjunction suggest that interpreting training can lead to enhancements in lexical access not only in the non-native language, but also in the native language. However, caution must be taken as the sample sizes used in these experiments was rather low. Instead, the results should be understood as an initial finding to be further investigated under the umbrella of cognitive abilities that serve to decrease cognitive load during interpreting.