



respeaking
proces - kompetencje - jakość

Are interpreters better respeakers?

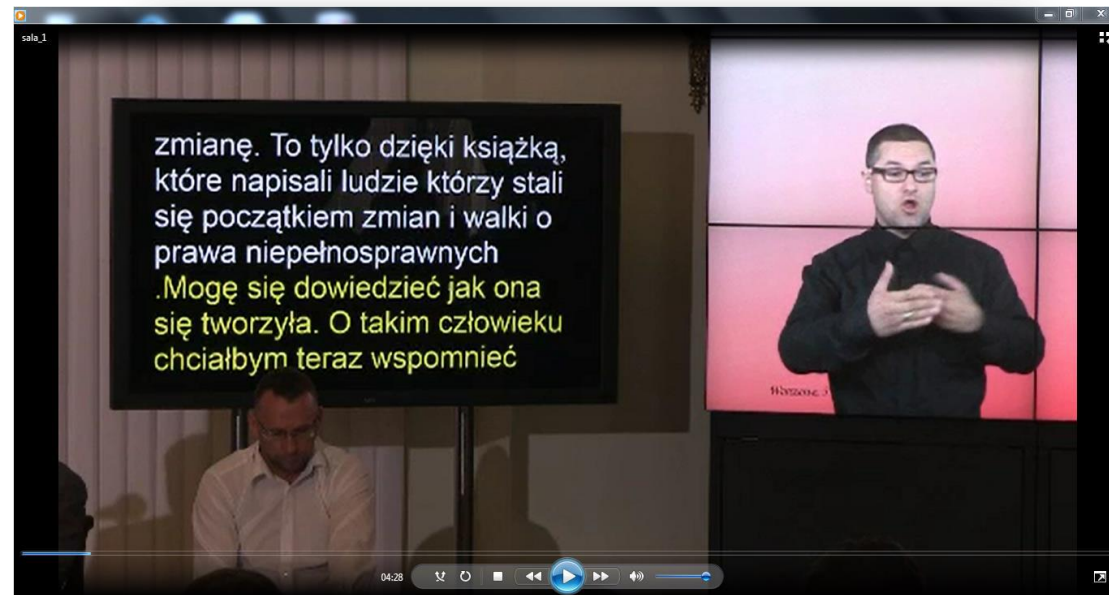
An exploratory study on respeaking competences

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Respeaking in Poland

- Television
 - No live subtitling on TV
 - Semi-live subtitling with QWERTY
- Live events
 - Conferences
 - Online interlingual respeaking for canonisation
- SR software
 - Newton Dictate (Newton Technologies)
 - Magic Scribe (Unikkon Integral)



Poznaj innowacyjny System
Rozpoznawania i Zamiany Mowy na Tekst!



Respeaking project (2014-2017)

- "Respeaking – process, competences, quality"
 - Goal: to examine the competences of respeakers
 - Research question: Are interpreters better respeakers?
 - Three groups of participants
 - Interpreters and interpreting trainees
 - Translators and translation trainees
 - Control group (no interpreting/translation background)
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Respeaking training

- No professional respeakers to test
- Respeaking training
 - Four two-day workshops (February - May 2015)
 - Pablo Romero Fresco, Carlo Eugeni, Juan Martinez



Tests in the project

- Working memory capacity tests
 - Digit Span
 - Listening Span
 - Reading Span
 - Paraphrasing tests
 - Proof-reading test
 - Respeaking tests + semi-structured interview
-

Respeaking test

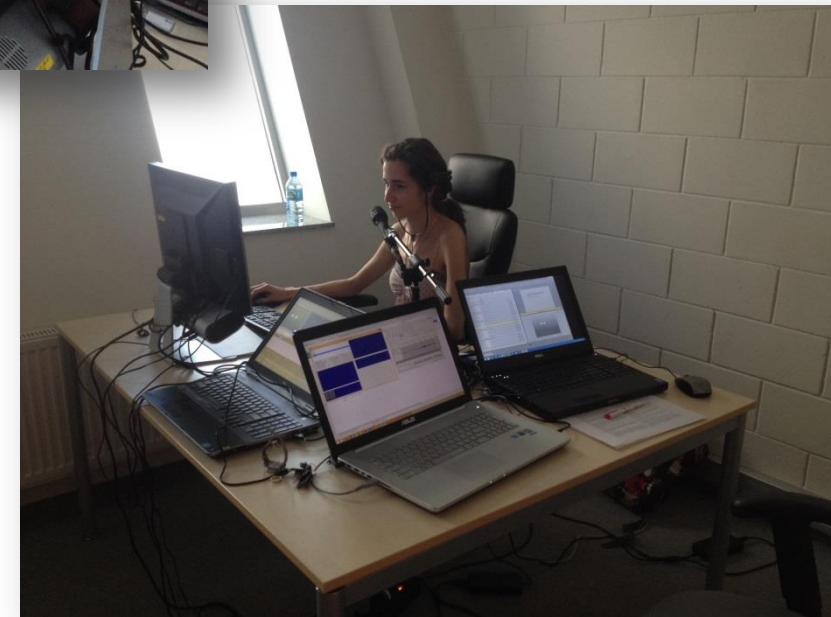
- **Intralingual respeaking** (Polish to Polish)
 - Four 5-minute clips in randomised order
 - Variables: slow/fast, one speaker/many speakers
 - Genres: speech, chat shows, news
 - **Interlingual respeaking** (English to Polish)
 - Slow one-speaker speech
(President Obama in Warsaw)
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Participants

- 58 participants
 - 23 translators
 - 23 interpreters
 - 12 controls
 - Demographic data of the sample
 - Mean age 27.48 (SD 5.71)
 - 51 women, 7 men
-

Measurements

- Screenrecording
- Eyetracking
- EEG (Emotiv EPOC)
- Self-report on cognitive load
- NER
- WER



Preliminary results

- Participant sample: $N=42$
 - Working memory capacity
 - Self-reported cognitive load
 - EEG cognitive load
-

Working memory capacity

Group	Listening Span	Reading Span	Digit Span (forward)	Digit Span (backward)
Interpreters	56.55	36.77	6.22	5.50
Translators	54.35	36.35	6.17	5.58
Controls	49.57	35.71	6.28	5.42

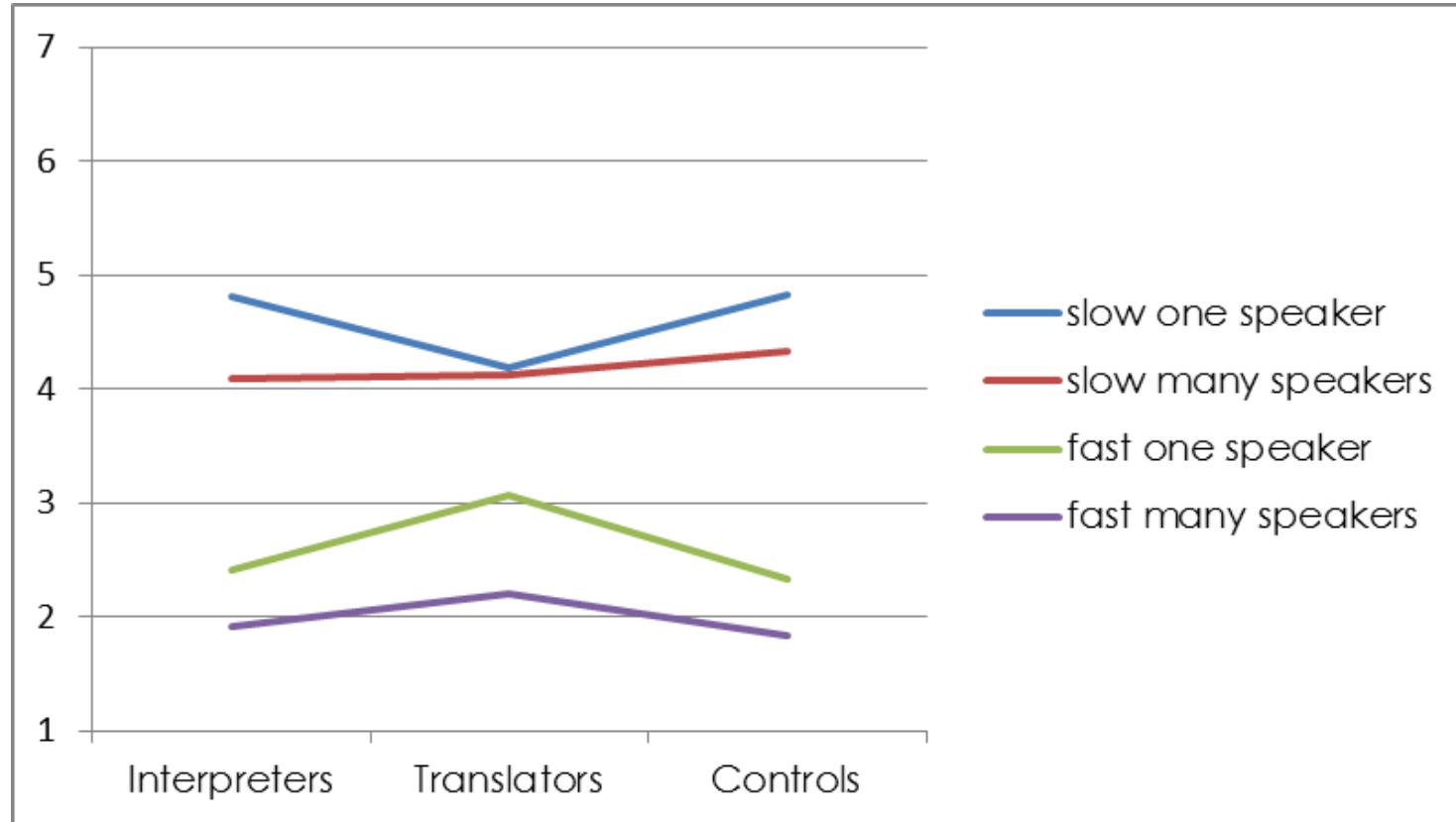
N=42, ANOVA, $p < .05$

Self-reported cognitive load

MENTAL DEMAND	How mentally demanding was the task?	Extremely undemanding to extremely demanding (7-point scale)
TEMPORAL DEMAND	How hurried or rushed was the task?	Extremely unrushed to extremely rushed (7-point scale)
FRUSTRATION	Describe your level of irritation, stress or annoyance while respeaking this clip.	Extremely low to extremely high (7-point scale)
DIFFICULTY LEVEL	How easy or difficult was the task?	Extremely easy to extremely difficult to understand (7-point scale)
CONCENTRATION / ENGAGEMENT	To what extent could you concentrate on the task (i.e. without thinking about other things)?	Not at all to all of the time (7-point scale)

adapted from
Kruger et al. (2014)

Difficulty level

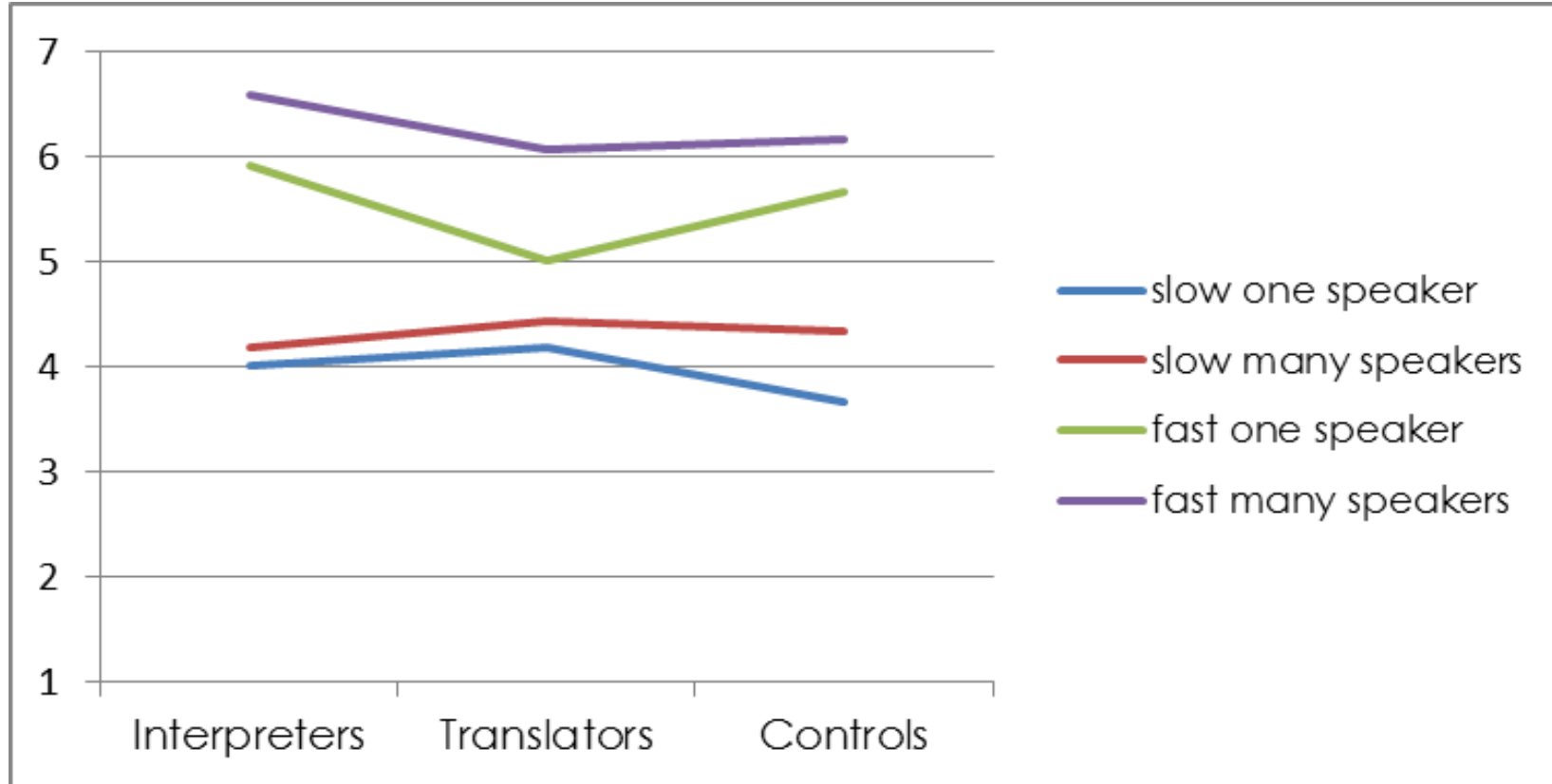


7-point scale:

1 – very difficult

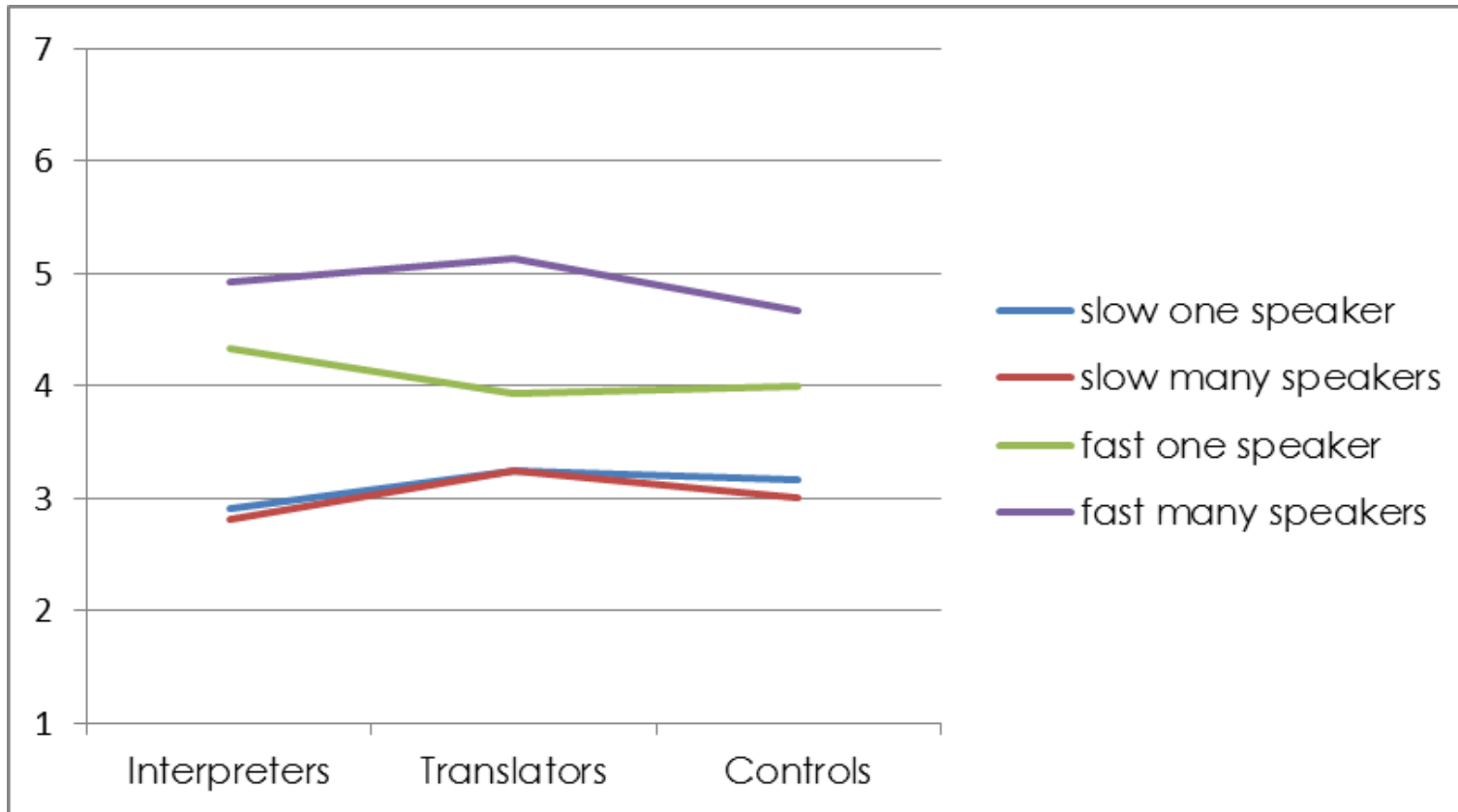
7 – very easy

Mental demand



7-point scale:
1 – very undemanding
7 – extremely demanding

Frustration

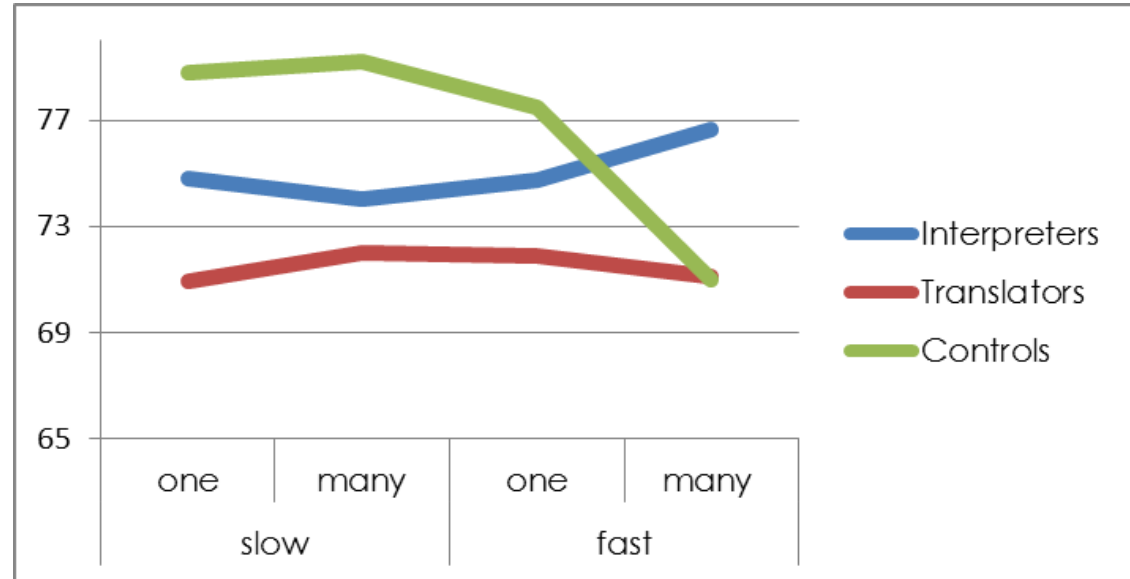
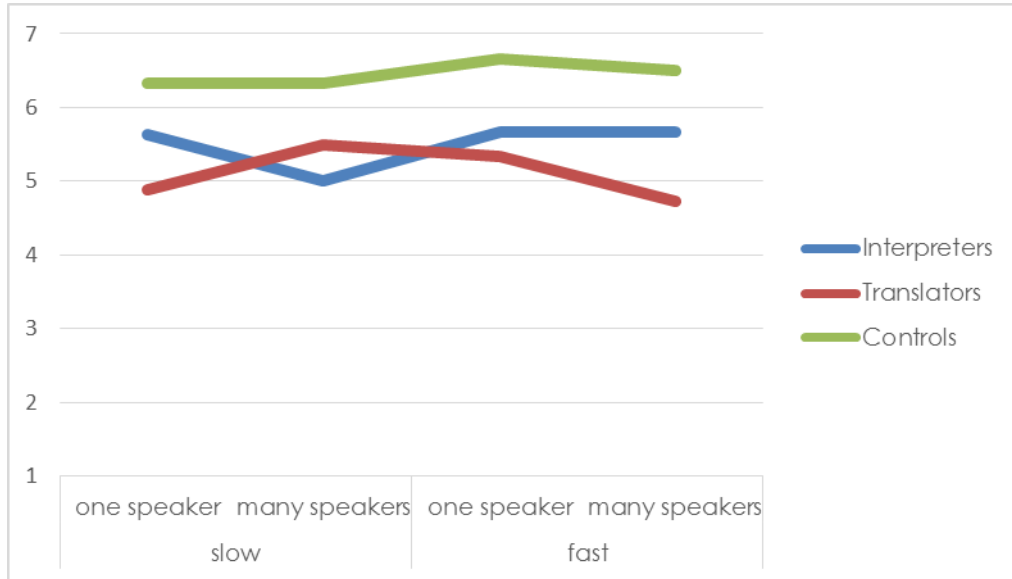


7-point scale:

1 – very low

7 – very high

Concentration – self-report vs. EEG



Self-report
(1-7 scale)

EEG

Preliminary respeaking data sample

- Participants
 - 5 translators & 5 interpreters
- Video
 - One speaker
 - Slow speech
- NER
- WER
- BLEU

Accuracy rate in NERstar

	ACCURACY RATE (NER value)
Translators	93.29
Interpreters	94.39

Edition vs. recognition errors

	Edition errors	Recognition errors
Translators	27.66	72.34
Interpreters	28.75	69.33

Reduction

	Reduction
Translators	12.13
Interpreters	10.49

Word error rate (WER)

- Reference text: transcription from respeakers
- Analysed text: SR output

Group	WER
Translators	18.93
Interpreters	14.43

BLEU (Bilingual Evaluation Understudy)

- Machine translation measure
- Reference text: transcription of the original speaker
- Analysed text: transcription from respeakers

Group	BLEU RATE
Translators	56.11
Interpreters	55.15

So...?

- So far... no conclusive evidence that interpreters are better respeakers
 - Ongoing study – more data to come
 - What next?
 - Correlate quality in respeaking with other measures: what makes a good respeaker?
 - Implications for respeaker training
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AVT LAB

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