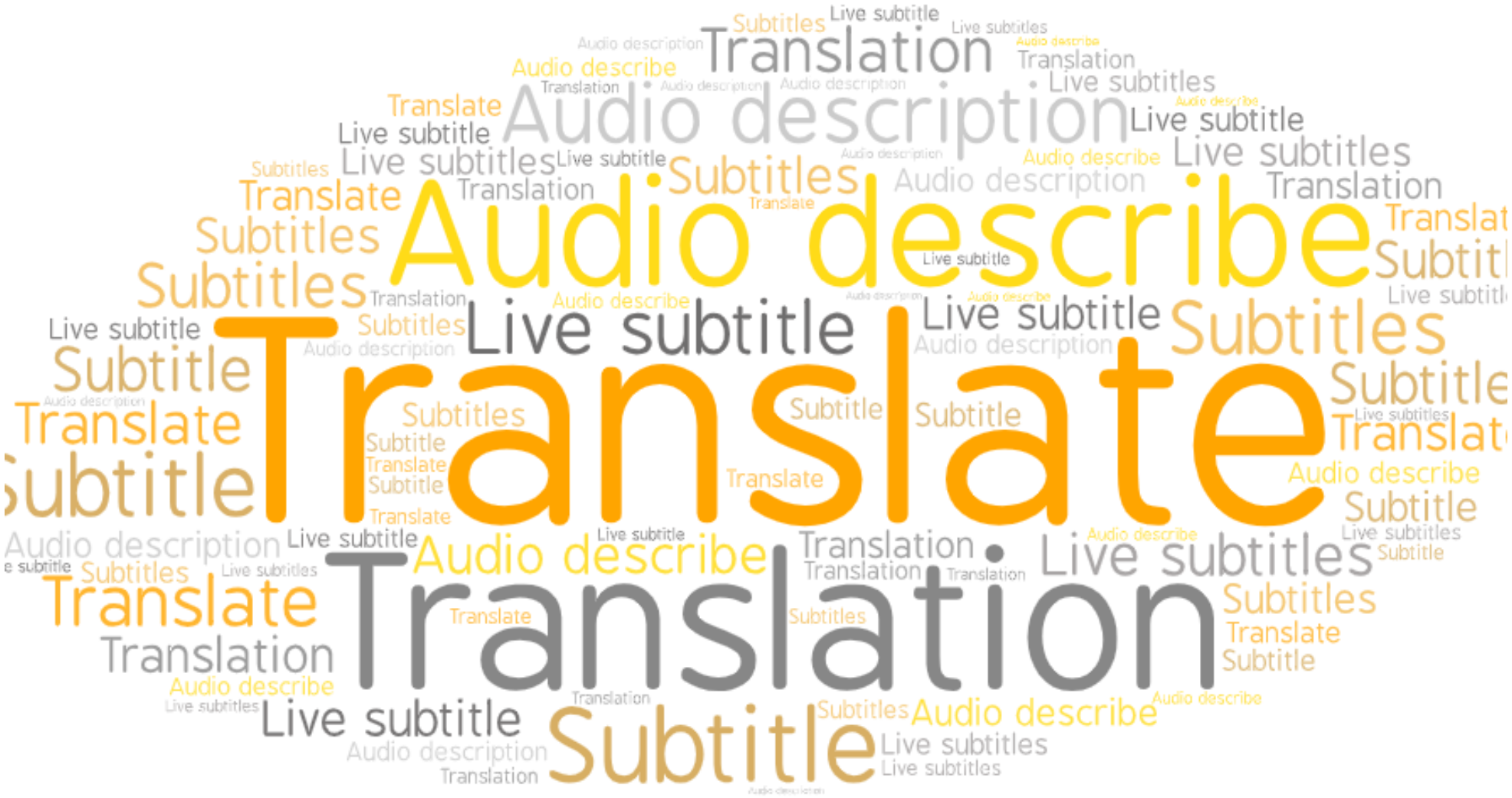
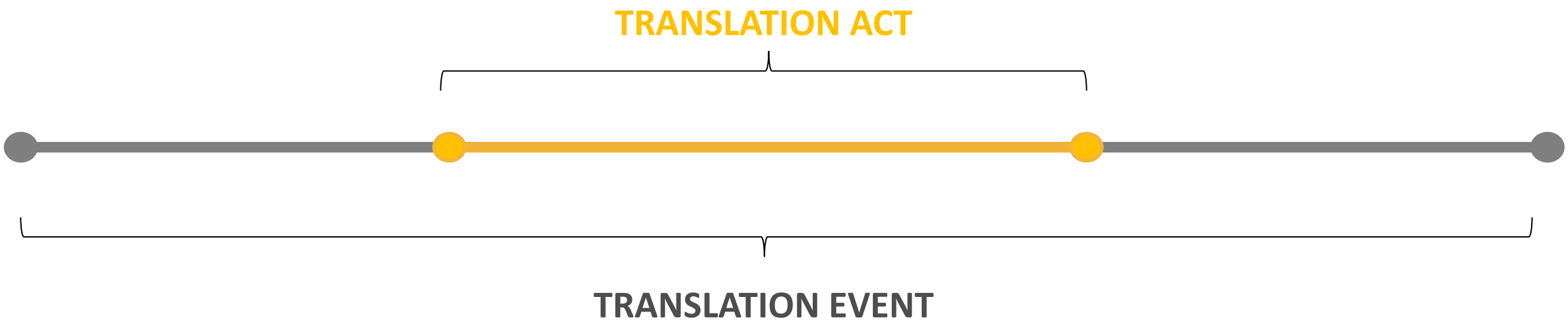
University of Antwerp
TRICS | Translation, Interpreting and Intercultural Studies

USING TRANSLATION PROCESS METHODS IN AUDIOVISUAL TRANSLATION AND MEDIA ACCESSIBILITY RESEARCH

ANNA JANKOWSKA

TRANSLATION
AS PRODUCT AND PROCESS


Translate
Translation
Audio describe
Subtitles
Live subtitle
Audio description
Live subtitles
Subtitle



TRANSLATION EVENT

the sociological or situational context of the act which begins when the translator accepts the job […], and ends with […] payment of the bill

TRANSLATION ACT

the cognitive process which starts when the translator begins to read the source text, and ends when the translator decides to take no further action in revising the translation

(Chesterman, 2013, p. 8)

VIRTUAL PROCESS → Approach which presents potential solutions a translator might take to solve a translation problem.

REVERSE-ENGINEERED PROCESS → Approach which, based on solutions used, reconstructs the potential process taken by the translator to solve a translation problem.

ACTUAL PROCESS → Approach based on data gathered during observation of the actual process of translation through a variety of methods such as keylogging, eye-tracking, think-aloud protocols, etc.

SOCIOLOGICAL EVENT → Approach based on data gathered during workplace studies, revision procedures, analysis of teams, networking, etc.

TRANSLATION PROCESS RESEARCH

Process research seeks to answer
one basic question:
by what observable and presumed
mental processes do translators arrive
at their translations.

(Jakobsen, 2017, p. 21)

Mental processes

Environmental

Ergonomic

Psychosocial

Personal

Emotional

Translation Process Research investigates translation and interpreting processes from cognitive, psychological and behavioral perspectives.

(Risku, 2019, p. 437)

Cognitive Translation and Interpreting Studies

TRANSLATION PROCESS PRESEARCH METHODOLOGY

TPR RESEARCH METHODS

OFF-LINE METHODS	ON-LINE METHODS

(Jankowska, 2021)

TPR OFF-LINE METHODS: PRODUCT ANALYSIS

- Translations.
- Translation notes, journals and diaries.
- Different translations performed by the same translator.
- Same translations produced by different translators.

Even today, when the "translation process“
is described in translation studies,
it often involves theoretical modelling
from a linguistic, semiotic, communication-theoretical,
textual, or even literary perspective,
rather than an attempt to describe
concrete translation events empirically.

(Krings, 2005, p. 345)

To describe concrete translation processes is
to seek an answer to the question:
How and why does a certain translator
at a certain point in time under certain situational conditions
arrive at a certain translation result
when translating a certain source text?

(Krings, 2005, p. 345)

TPR OFF-LINE METHODS: VERBAL DATA ELICITATION

- Retrospective commentary.
- Retrospective interview.
- Retrospective questionnaire.
- General interviews and questionnaires.
- Integrated Problem and Decision Reporting.

TPR ON-LINE METHODS
BEHAVIORAL & PSYCHOPHYSIOLOGICAL OBSERVATIONS

- Observation.
- Video recording.
- Screen recording.
- Keylogging.
- Eye-tracking.
- Electroencephalography (EEG).
- Functional magnetic resonance imaging (fMRI).
- Positron emission tomography (PET).
- Echo-planar imaging (EPI).
- Heart rate variability.
- Galvanic skin response.

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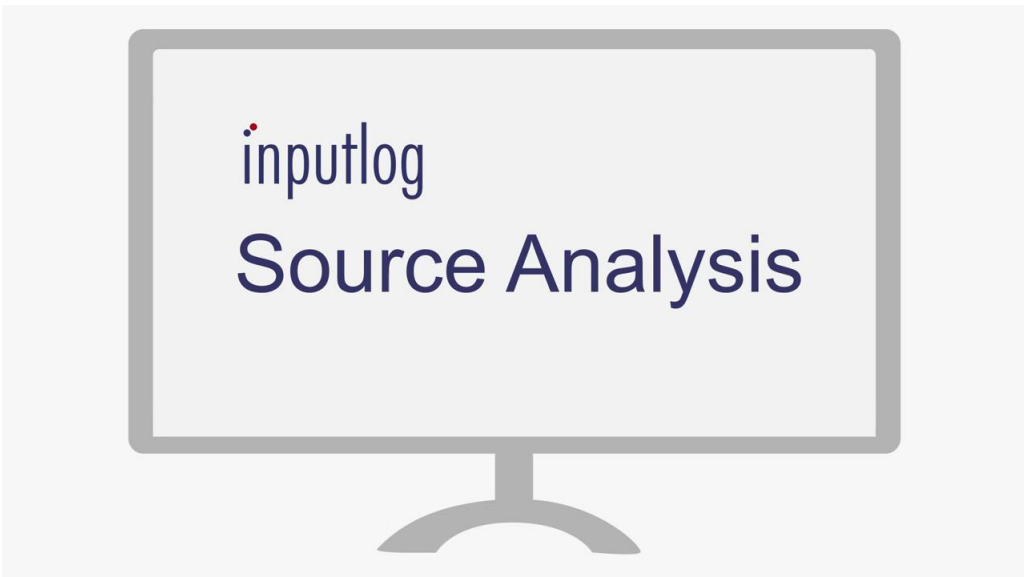
KEYLOGGING

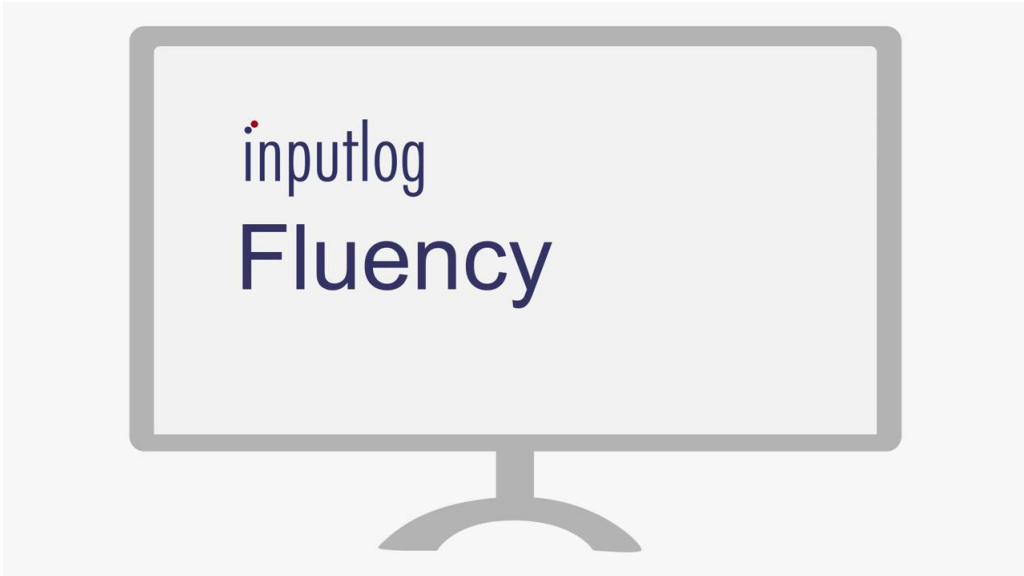
Is an unobtrusive online data gathering method which registers all keyboard and mouse activity, including delete, insert, cut-and-paste operations.

- Time spent on task.
- Typing speed.
- Number and duration of pauses.
- Searching time.
- Reviewing time.

KEYLOGGING

- Temporal effort
- Production effort
- Cognitive effort





https://www.youtube.com/channel/UCiRwb1LOa3b9zZjCJb1absg

TEMPORAL AND PRODUCTION EFFORT IN SUBTITLING

Group	*n*	Mean (minutes)	SD	Minimum	Maximum
Professionals	6	60.70	13.38	39	74
Trainees	5	76.84	10.07	61	84

Table 2. Task completion time by group

Group	*n*	Mouse clicks	Key presses	Total interactions	Mouse clicks/ interactions
Professionals	6	404.5	5277.67	5682.16	7.12%
Trainees	5	488.8	4306.8	4795.6	10.19%

Table 5. User events by group.

(Orrego-Carmona et al., 2018)

TEMPORAL AND PRODUCTION EFFORT IN SUBTITLING

Group	*n*	Mean (minutes)	SD	Minimum	Maximum
Professionals EZTitles	6	60.70	13.38	39	74
Professionals EdList	4	66	21.25	39	90

Table 7. Task completion time by group of professionals

Group	*n*	Mouse clicks	Key presses	Total interactions	Mouse clicks/ interactions
Professionals EZTitles	6	404.5	5277.67	5682.16	7.12%
Professionals EdList	4	1313.3	2485.75	3799	34.57%

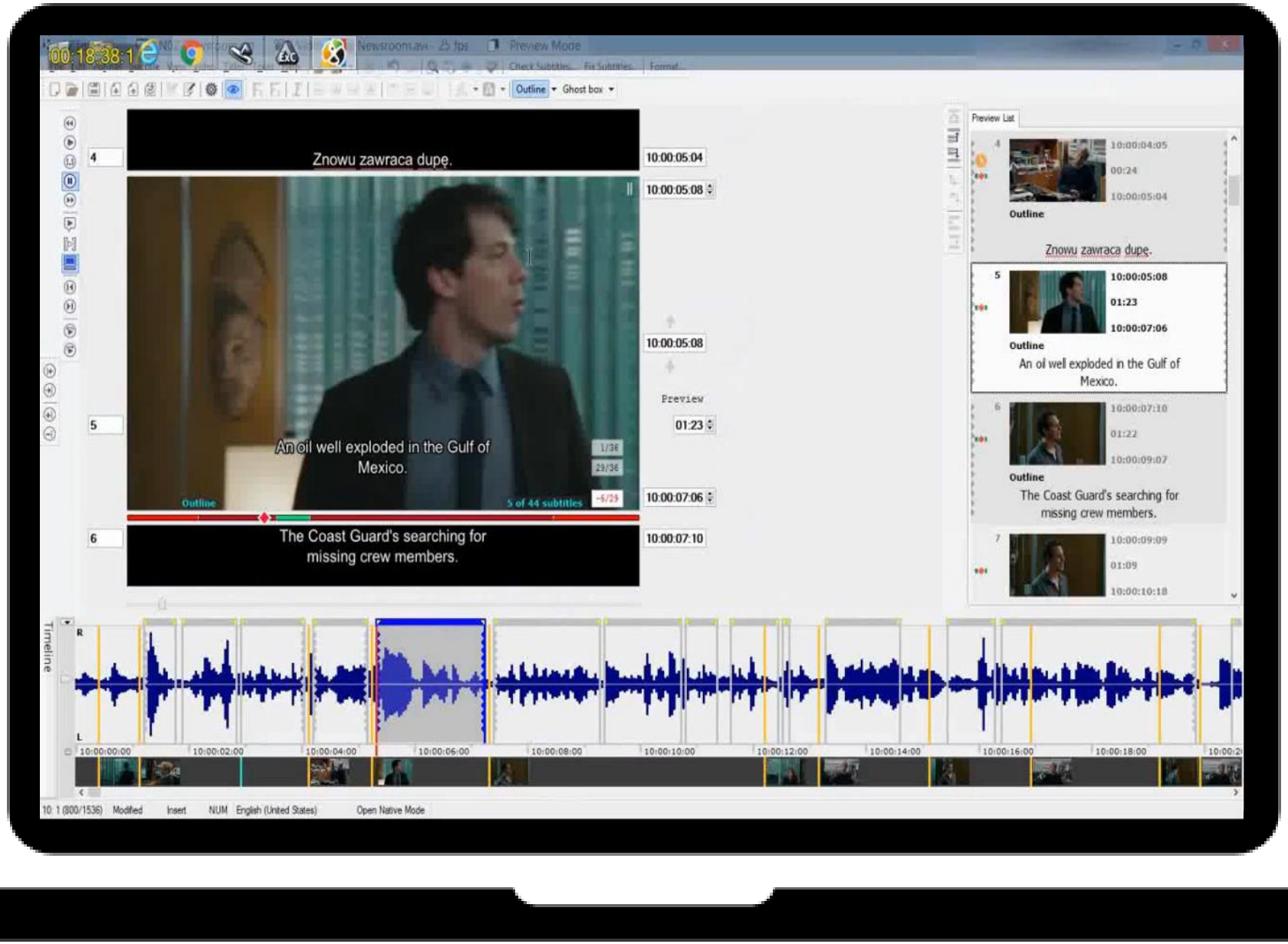
Table 10. User events by the professionals using EdList.

(Orrego-Carmona et al., 2018)

SCREEN RECORDING

An unobtrusive online data gathering method which allows access to what happens on the screen.

- Monitor translator's online search activity.

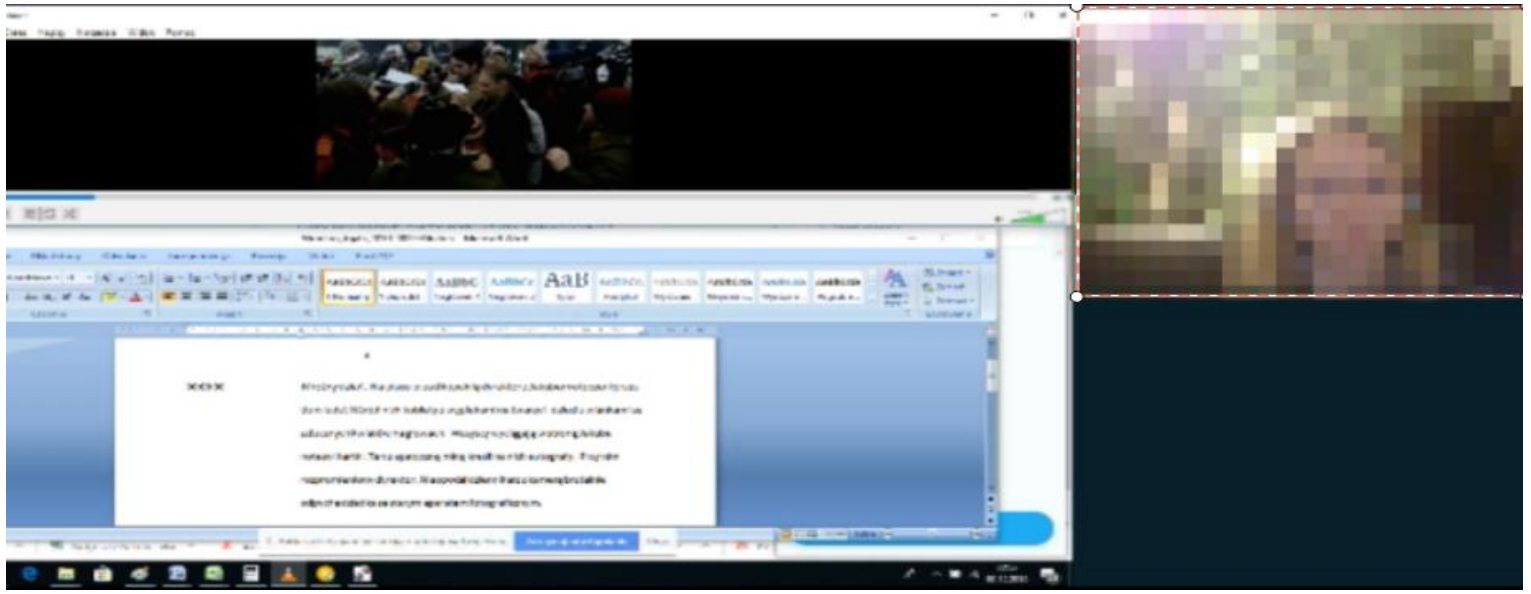


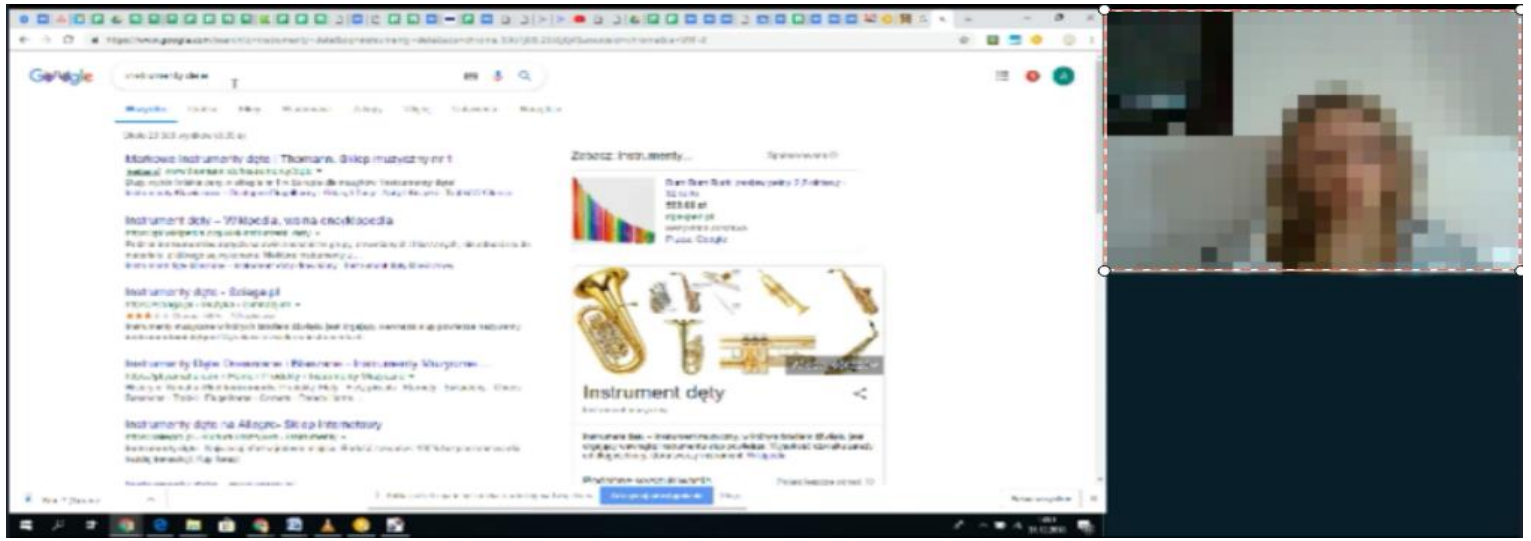
(Orrego-Carmona, Dutka & Szarkowska, 2018; https://www.youtube.com/watch?v=JLbI68zT3Tk&t=5s)

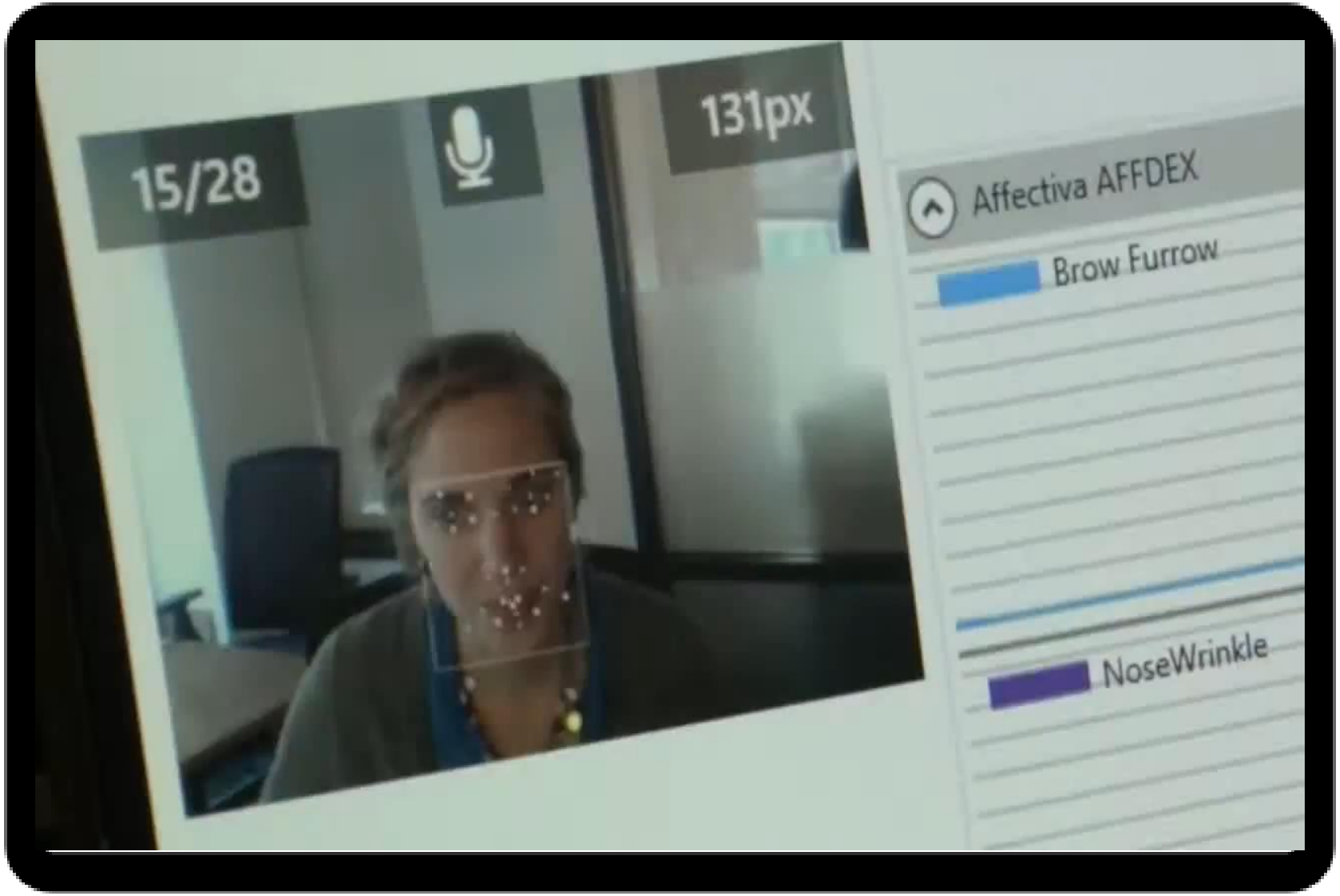
FACE RECORDING

An unobtrusive online data gathering method giving access to the participant's face and action

- Monitor translator's activity and emotions.



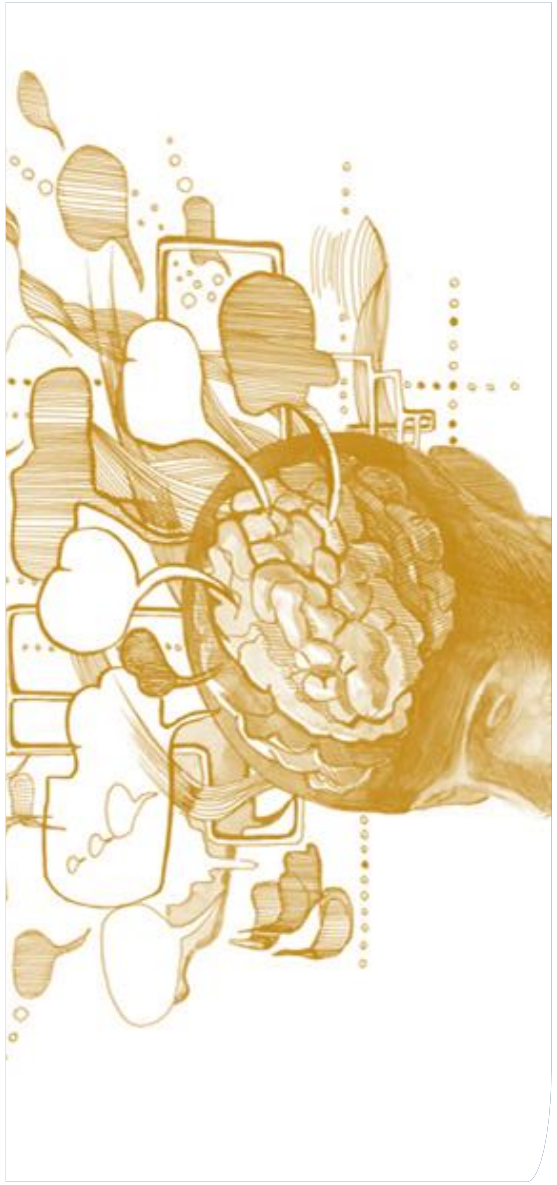

Instrument dęty



https://www.youtube.com/watch?v=136aVnTwpKU

TPR ON-LINE METHODS: VERBAL DATA ELICITATION

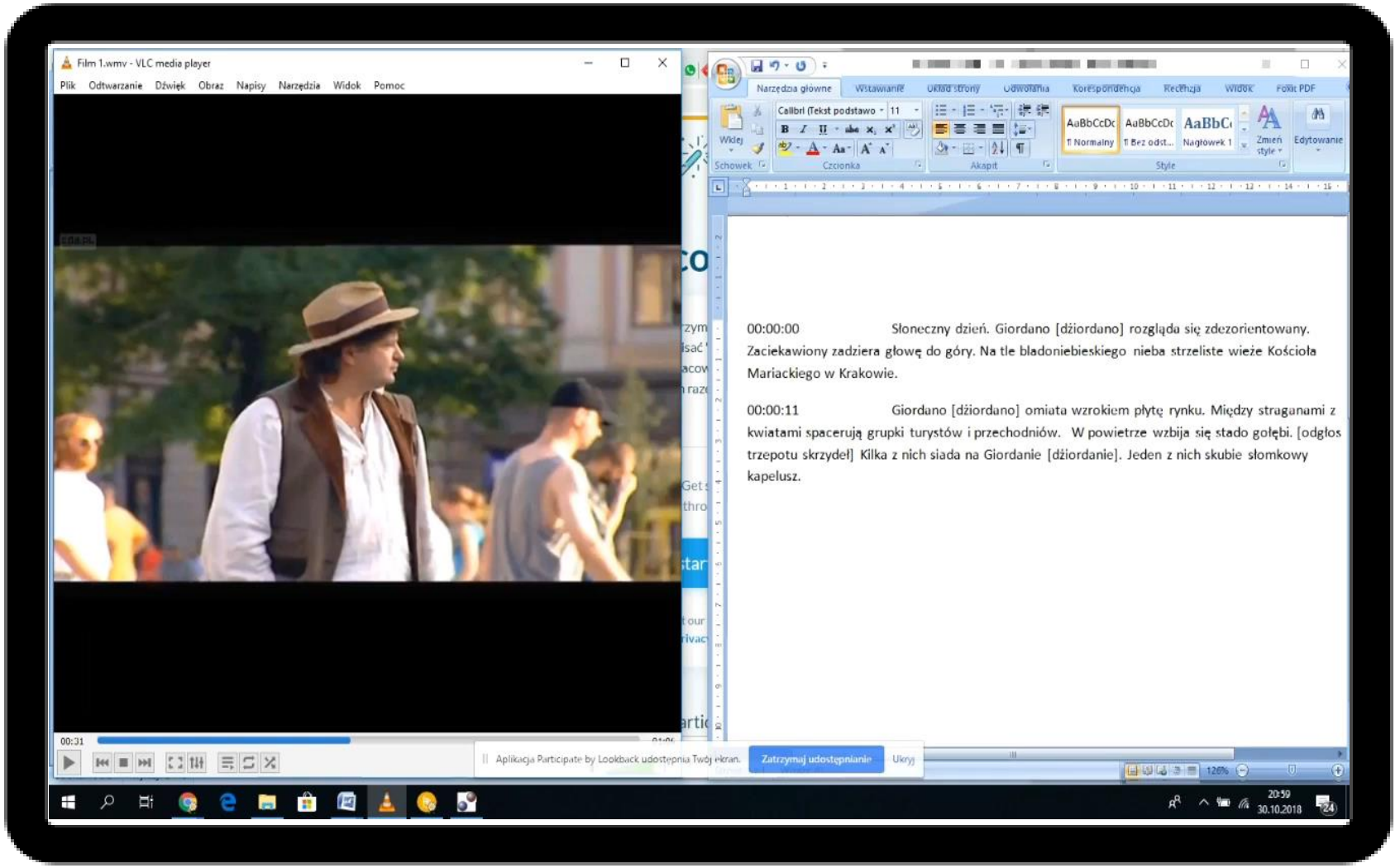
- Talk aloud protocols.
- Think aloud protocols.
- Dialogue protocols.



THINK ALOUD PROTOCOLS

An online data gathering method in which a person involved in a given activity is asked to verbalise their thoughts which are then recorded, transcribed and finally coded.

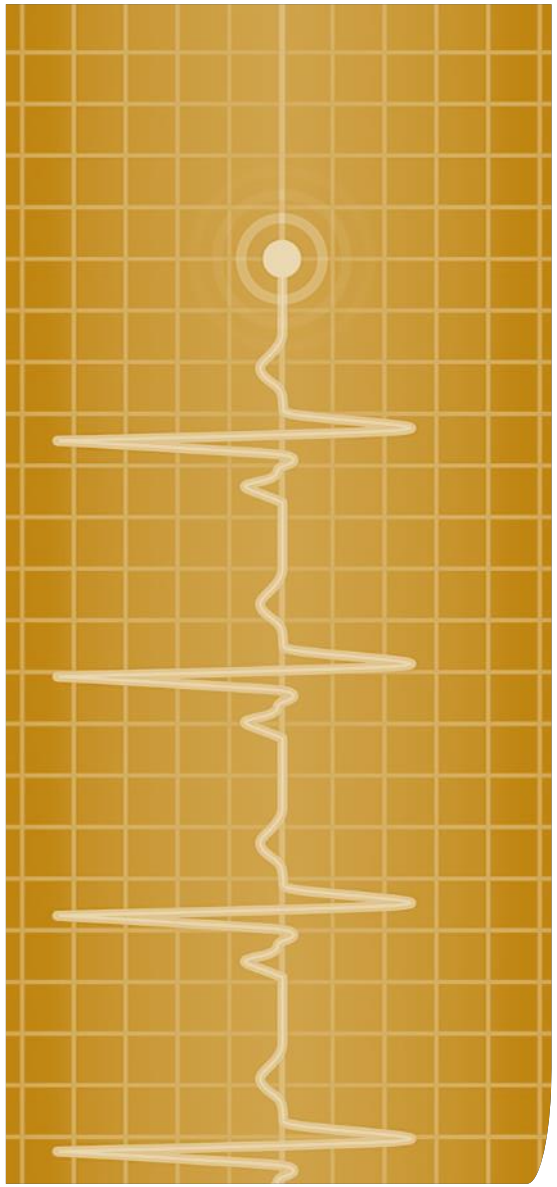
- Access the cognitive processes.
- Decision-making proces.



https://youtu.be/iGasLi_l3Fs

TAP'S REACTIVITY

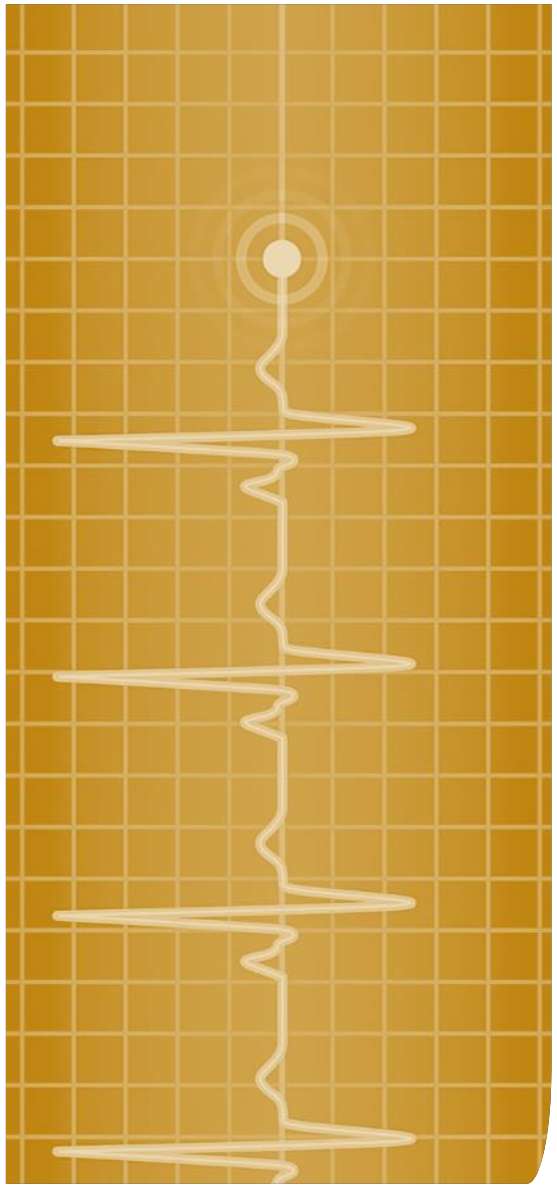
If a person follows
the same path as usual,
we would say their path is unchanged,
even when they walk more slowly
and take smaller steps than usual.



HEART RATE VARIABILITY

Measures the irregularities in the time that passes between consecutive heart beats.

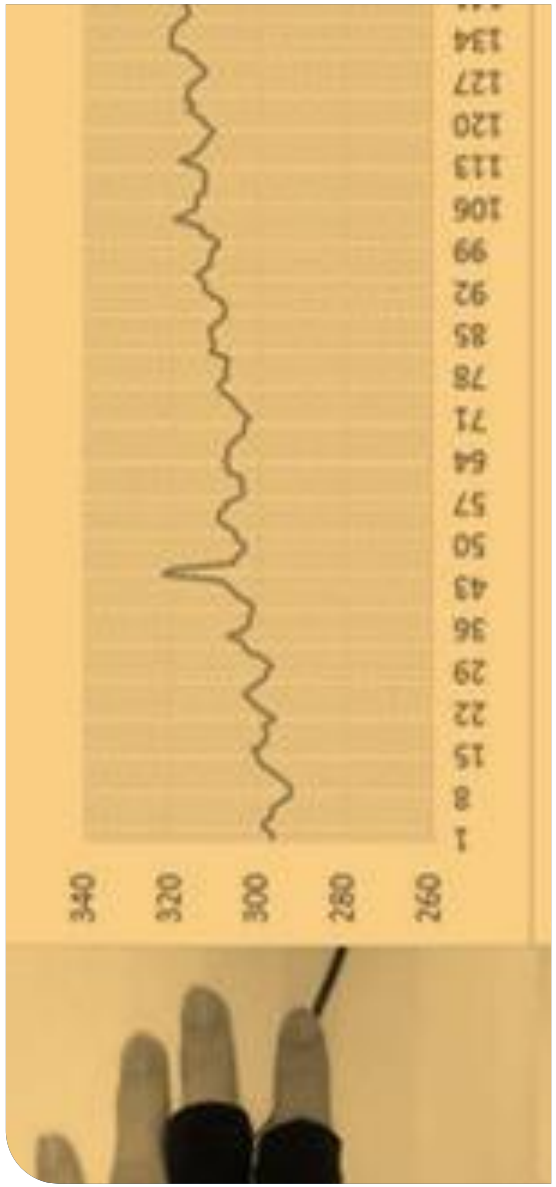
- Emotional elicitation: Stress and other negative emotional states may result in reduced HRV, while high HRV values indicate higher self-regulatory capacity, including emotional regulation.
- Cognitive functions: low HRV might be indicative of enhanced attention.



HEART RATE VARIABILITY

- TPR
  - None in AVT&MA.
  - Interpreting studies.

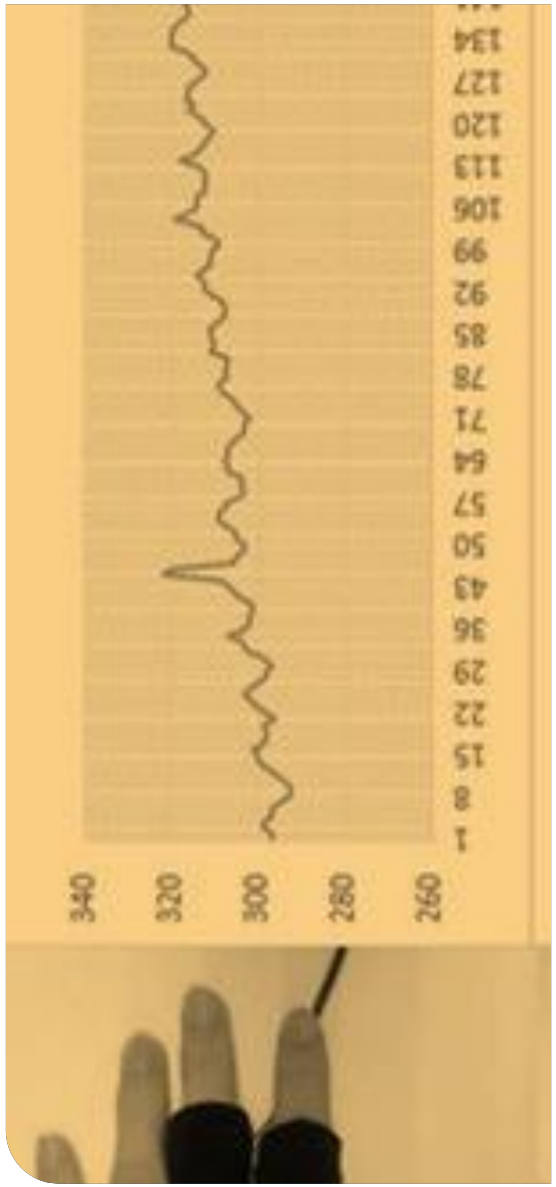
- CTIS
  - Receptions studies
    - Objective versus a more subjective audio description (Ramos Caro, 2015).
    - Dubbing versus voice-over (Iturregui-Gallardo et al., 2018)
    - Intonation in audio description voicing (Jankowska et. al. forthcoming).



GALVANIC SKIN RESPONSE

Changes in sweat gland activity that are reflective of the intensity of emotional state.

- Emotional arousal.
- Stress.



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López Rojo, A. M., & Korpal, P. (2020). Through your skin to your heart and brain : A critical evaluation of physiological methods in Cognitive Translation and Interpreting Studies. *Linguistica Antverpiensia, New Series – Themes in Translation Studies, 19*, 191-217. https://lans-tts.uantwerpen.be/index.php/LANS-TTS/article/view/533/542

Matamala, A., Soler-Vilageliu, O., Iturregui-Gallardo, G., Jankowska, A., Méndez-Ulrich, J.-L., & Ratera, A. S. (2020). Electrodermal activity as a measure of emotions in media accessibility research: methodological considerations. *The Journal of Specialised Translation*, 129-151. https://jostrans.org/issue33/art_matamala.pdf

DESCRIBE WHAT YOU SEE

11 CLIPS

12 DESCRIBERS

120 RECORDINGS

60 HOURS

Understanding

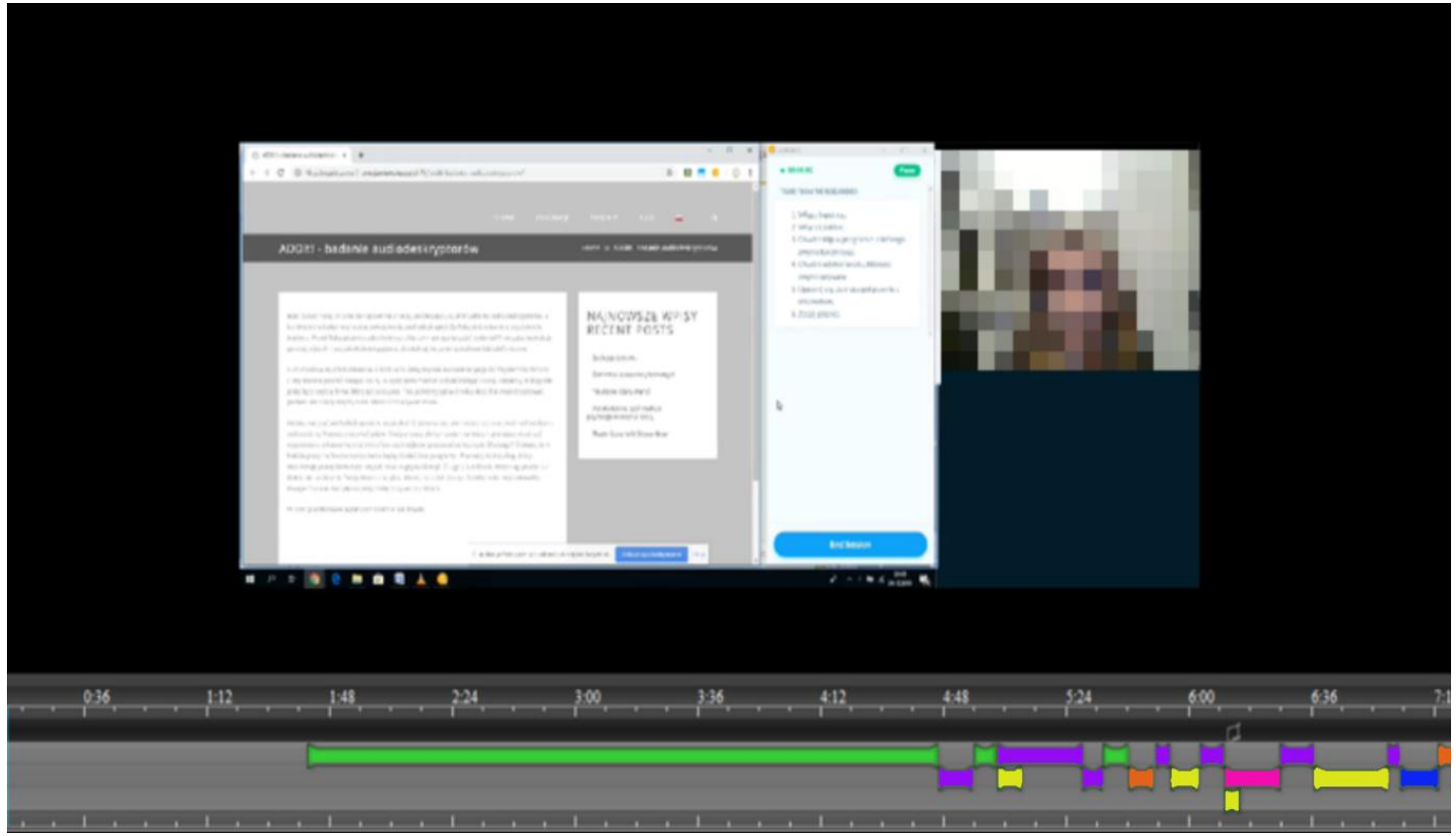
Planning

Generating text

Cueing

Review

Revision




GazePlot
Media: Polish 3 final.wmv
Time: 00:00:00.000 - 00:01:08.239
Participant filter: All Participants
Number of participants included: 9/14 (64%)
player


GazePlot
Media: Polish 3 final.wmv
Time: 00:00:00.000 - 00:01:08.239
Participant filter: All Participants
Number of participants included: 5/14 (35%)
player


HeatMap
Draw: 28923µs
FPS: 34
0
2,11
counts
player


HeatMap
Draw: 10971µs
FPS: 91
0
1,98
counts
player

RED BORSCH WITH MUSHROOM DUMPLINGS

Mother pours a red soup.

With a ladle she pours bright red beetroot soup.

Mother serves borsch, typical Polish red Christmas soup.

She starts to serve a red soup with little pierogis.

The woman pours beetroot soup with stuffed pasta.

DESCRIBER 1

The mother pours a red soup.

Obviously a sighted Spaniard doesn't know this soup. And the same goes for a Spanish person with sight loss. Then if I look for its name, people with vision loss will have more information than the sighted ones. So I will just describe it. That's it.

DESCRIBER 2

With a ladle she pours bright red beetroot soup.

This is beetroot soup with pierogi!

CHALLENGES

THINGS TO CONSIDER

- **New methodologies**
- **Human participants**
  - Ethical issues
  - Data storage and preservation
  - Remuneration for participants
- **Experimental design**
  - Qualitative vs. quantitative
    - Length of clips
    - Number of participants
  - Lab setting vs. ecological validity

TRANSLATION PROCESS RESEARCH IN AUDIOVISUAL TRANSLATION AND MEDIA ACCESSIBILITY

WHAT HAVE WE DONE SO FAR?

- **Subtitling**
  - Kovačič, 2000; Pagano et al., 2012; Orrego-Carmona et. al, 2018.
  - Massey & Jud, 2015.
- **Dubbing**
  - Hvelplund, 2017.
- **Respeaking**
  - Szarkowska et al., 2016 Szarkowska et al. 2018; Chmiel at al. 2017a & 2017b
- **Audio description**
  - Posadas Rodríguez (2010)
  - Jankowska (2015)
  - Fernández-Torné & Matamala (2016)
  - Mazur (2017)
  - Holsanova (2020)
  - Jankowska (2021)

WHAT CAN WE RESEARCH AND WHY?

WHERE TO?

- What are the AVT&MA processes?
- Do they differ from translation and/or writing?
- How contextual features influence AVT&MA processes?
  - Technology.
  - Other people.
  - Experience.
  - Emotions.
- Applying TPR findings to training.

WHY?

- TPR in AVT&MA is almost inexistent.
- AVT&MA methodology of empirical/experimental research is still limited.

REFERENCES

- Chmiel, A., Lijewska, A., Szarkowska, A., & Dutka, u. (2017a). Paraphrasing in respeaking – comparing linguistic competence of interpreters, translators and bilinguals. *Perspectives*, 1-20. https://doi.org/10.1080/0907676X.2017.1394331
- Chmiel, A., Szarkowska, A., Korinek, D., Lijewska, A., Dutka, U., Brocki, U., & Marasek, K. (2017b). Ear–voice span and pauses in intra- and interlingual respeaking: An exploratory study into temporal aspects of the respeaking process. *Applied Psycholinguistics*, *38*(05), 1201-1227. https://doi.org/10.1017/S0142716417000108
- Gile, D. (2004). Integrated Problem and Decision Reporting as a Translator Training Tool. *The Journal of Specialised Translation* (2), 2-20. https://jostrans.org/issue02/art_gile.pdf
- Fernández-Torné, A., & Matamala, A. (2016). Machine translation and audio description? Comparing creation, translation and post-editing efforts. *Skase. Journal of Translation and Interpretation*, *9*, 64-87.
- Holsanova, J. (2020). Uncovering scientific and multimodal literacy through audio description. *Journal of Visual Literacy*, *39*(3-4), 132-148. https://doi.org/10.1080/1051144X.2020.1826219
- Hvelplund, K. T. (2017). Eye tracking and the process of dubbing translation. 110-125.
- Jankowska, A. (2015). Translating Audio Description Scripts Translation as a New Strategy of Creating Audio Description. 134. https://doi.org/http://dx.doi.org/10.3726/978-3-653-04534-5
- Jankowska, A. (2021). Audio describing films: A first look into the description process. *The Journal of Specialised Translation*, *31.*
- Kovačič. (2000). Thinking-aloud Protocol-Interview-Text Analysis. https://www.jbe-platform.com/content/books/9789027284471-btl.37.10kov
- López Rojo, A. M., & Korpal, P. (2020). Through your skin to your heart and brain : A critical evaluation of physiological methods in Cognitive Translation and Interpreting Studies. *Linguistica Antverpiensia, New Series – Themes in Translation Studies, 19*, 191-217. https://lans-tts.uantwerpen.be/index.php/LANS-TTS/article/view/533/542

REFERENCES

- Massey, G., & Jud, P. (2015). Teaching audiovisual translation with products and processes: subtitling as a case in point. 99--116. https://doi.org/10.3726/978-3-653-04906-0/16
- Massey, G., & Jud, P. (2020). Translation Process Research in Audiovisual Translation. In Ł. Bogucki & M. Deckert (Eds.), *The Palgrave Handbook of Audiovisual Translation and Media Accessibility* (pp. 359-380). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-42105-2
- Matamala, A., Soler-Vilageliu, O., Iturregui-Gallardo, G., Jankowska, A., Méndez-Ulrich, J.-L., & Ratera, A. S. (2020). Electrodermal activity as a measure of emotions in media accessibility research: methodological considerations. *The Journal of Specialised Translation*, 129-151. https://jostrans.org/issue33/art_matamala.pdf
- Mazur, I. (2017). Audio Description Crisis Points: The Idea of Common European Audio Description Guidelines Revisited. In J. Díaz-Cintas & K. Nikolić (Eds.), *Fast-Forwarding with Audiovisual Translation* (pp. 127-140). Multilingual Matters. https://doi.org/10.21832/9781783099375-011
- Orrego-Carmona, D., Dutka, Ł., & Szarkowska, A. (2018). Using translation process research to explore the creation of subtitles: an eye-tracking study ... *The Journal of Specialised Translation*(30), 150-180. https://jostrans.org/issue30/art_orrego-carmona_et_al.
- Pagano, A., & Alves, F. a. (2012). Approaching Expertise in Subtitling: A Pilot Experiment. 33--160. https://doi.org/10.3726/978-3-0351-0209-3
- Posadas Rodríguez, G. (2010). Audio description as a complex translation process: a protocol. In J. Díaz Cintas, A. Matamala, & J. Neves (Eds.), *New Insights into Audiovisual Translation and Media Accessibility: Media for all 2* (pp. 195-211). Brill. https://doi.org/10.1163/9789042031814_015

REFERENCES

- Sun, S. (2011). Think-Aloud-Based Translation Process Research: Some Methodological Considerations. *Meta*, *56*(4), 928-951. https://doi.org/https://doi.org/10.7202/1011261ar
- Sun, S., Li, T., & Zhou, X. (2020). Effects of thinking aloud on cognitive effort in translation. *Linguistica Antverpiensia, New Series – Themes in Translation Studies 19*, 132-151. https://lans-tts.uantwerpen.be/index.php/LANS-TTS/article/view/556
- Szarkowska, A., Krejtz, K., Dutka, u., & Pilipczuk, O. (2016). Cognitive load in intralingual and interlingual respeaking – a preliminary study. *Poznan Studies in Contemporary Linguistics*, *52*(2), 209--233. https://doi.org/10.1515/psicl-2016-0008
- Szarkowska, A., Dutka, Ł., Szychowska, A., & Pilipczuk, O. (2018). Visual attention distribution in intralingual respeaking. In C. Walker & F. Federici (Eds.), *Eye Tracking and Multidisciplinary Studies on Translation* (pp. 185-201). Amsterdam/New York: John Benjamins. https://benjamins.com/catalog/btl.143.09sza
- Szarkowska, A., Krejtz, K., Dutka, Ł., & Pilipczuk, O. (2018). Are interpreters better respeakers? *The Interpreter and Translator Trainer*, *12*(2), 207-226. https://doi.org/10.1080/1750399X.2018.1465679