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INTERPRETING STRATEGIES OF NOVICE INTERPRETERS

Magisterská diplomová práce

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I hereby declare that I have worked on my seminary work independently and used only the sources listed in the bibliography.

V …… dne …… Podpis ……

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LIST OF ABBREVIATIONS

Abbreviation	Meaning
CI	Consecutive Interpreting
FST	Fast Speech Tempo
MST	Medium Speech Tempo
OT	Original Text
SI	Simultaneous Interpreting
SST	Slow Speech Tempo
ST	Source Text
TT	Target Text
wpm	Words per Minute
wps	Words per Second

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1 INTRODUCTION

This thesis deals with the issue of interpreting strategies used by novice interpreters during simultaneous interpreting. The aim of the research is to find out how inexperienced interpreters apply the use of interpreting strategies in practice depending on the speech tempo and whether the speech tempo is an important criterion for using interpreting strategies. According to researches (Gerver 1976, Pio 2003), the impact of the speech rate on interpreting performance is one of the major constraints in interpreting. The use of interpreter strategies in relation to the speaker's speech tempo is also the subject of many research papers (Gerver 1969, Gile 2009). Interpreting strategies that will be analyzed are defined by Roderick Jones (2002) and Henry Barik (1971).

This work compares the use of interpreting strategies which are supposed to lower the cognitive load of novice interpreters. The work uses recordings of simultaneous interpreting that were recorded during the Comprehensive Exam which precedes the Final State Exam at the Palacký University Olomouc. Simultaneous interpreting is referred to as more demanding in comparison to consecutive interpreting. Čeňková (2008, 24) emphasizes that simultaneous interpretation requires more focused attention. In addition, simultaneous interpreting requires greater demands on immediate logical analysis, processing of the information and its parallel translation into the target language. The decisive factor in simultaneous interpreting is the time factor because, during simultaneous interpreting, the process of listening to the original and the transfer to the target language happens at the same time.

Due to higher demands on the interpreter for simultaneous interpreting, we expect a higher incidence of interpreting strategies at faster speech tempos.

The first chapter of the thesis will introduce simultaneous interpreting and its typology by Čeňková and Pöchhacker. The second chapter will focus on the introduction to the interpreting strategies. We will analyze interpreting strategies and their aspects, introduce approaches to the issue of interpreting strategies and describe the theoretical and pedagogical value of interpreting strategies. The third chapter will focus on the strategies that will be used in the corpus analysis. We select strategies that are defined by Jones and Barik – omission, addition, substitutions and errors, simplification, generalization, the Salami technique, summarizing and recapitulation and explanation. The fourth chapter will describe the speech tempo. We will classify the speech tempo, study relevant researches and introduce the calculation of the speech tempo and different approaches to this issue.

The empirical part of this thesis focuses on the corpus analysis. We will first introduce the methodology of research, subjects of the research, equipment that was used during the Comprehensive Exam, and the speaker and text corpus. The last part of the empirical part will focus on the results of the corpus analysis. The Comprehensive Exam evaluates practical interpreting skills that students have acquired in seminars and during practical training. We will create a small bilingual corpus that is based on the original speech made by Andras Forgacs in English and transcripts of the given speech in the Czech language.

The aim of this research is to uncover the use of interpreting strategies of novice interpreters and analyze whether the speech tempo influences the use of interpreting strategies.

Research Questions

What are the most common types of strategies used by novice interpreters?

The text corpus analysis should uncover what types of strategies novice interpreters use. The results of the analysis will provide mentors of interpreting with a list of interpreting strategies that are preferred by novice interpreters.

Does the change of speech tempo affect the use of interpreting strategies?

Does the occurrence of strategies differ at different speech tempos? Is the difference substantial?

Is the Omission strategy the most frequent interpreting strategy of novice interpreters?

Researchers of interpreting often argue, that interpreters tend to use the strategy of omission while interpreting speeches at a fast delivery rate (Gerver 1969, Barik 1971, Kalina 1998, Gile 2009). The analysis should verify, whether the omission strategy is the preferred strategy of trainees.

2 SIMULTANEOUS INTERPRETING

In the 1920s the equipment which enabled transmission of words and sounds was invented. This invention caused the formation of new working mode – Simultaneous Interpreting (SI). (Pöchhacker 2004:18). Simultaneous interpreting is considered to be more difficult than consecutive interpreting. As Čeňková states, SI requires more focused attention and quickness of mind. SI is more demanding on immediate logical analysis, processing of the information and its parallel transfer into the target language. The decisive variable of SI is the time element, because the core of SI is the simultaneity of speech acts and the ability to split the attention of interpreters so that they can listen to the source text and transfer it to the target text (Čeňková 2008, 25).

There are several types of SI that are recognized by researchers:

Simultaneous Interpreting in a Booth

This type of interpreting uses audio equipment. Interpreters are using headphones, in which they can hear the original source text. Interpreters then transfer the target text with the help of the microphone. According to standards of the AIIC, there should always be at least two interpreters in the booth. The number of interpretation booths is to be the same as the number of target languages (except for the two-language conferences). The structure of the interpreting teams should be composed in such a way that the relay interpreting is avoided.[1]

Sometimes the interpreters can be equipped with written documents or the actual speech of the speaker – simultaneous interpreting with text. In this situation, the interpreter has to split their attention to three different elements – listening to the original recording, visual supervision of the text and speech transfer. In this case, the speech provided by the speaker is still the main source for the transfer, the provided text is only a supporting document, which can be used for better preparation, source of terminology, etc.

Whispered Interpreting (whispering; chuchotage) is a type of SI, where the interpreter can provide immediate transfer of the ST by low voice interpreting, while sitting next to one or no more than a couple of listeners. Whispered interpreting is done without the use of an interpreting booth. Sometimes interpreters and their clients can use a specific piece of audio equipment – the

[1] https://aiic.net/page/6746

whisper set (microphone and headset). In this case, the rendition is not very comfortable for the interpreter and even for clients.

Sight interpreting

Commonly known as sight translation. As Pöchhacker (2004:19) states, "in sight translation, the interpreter's target-text production is simultaneous not with the delivery of the source text but with the interpreter's real-time (visual) reception of the written source text".

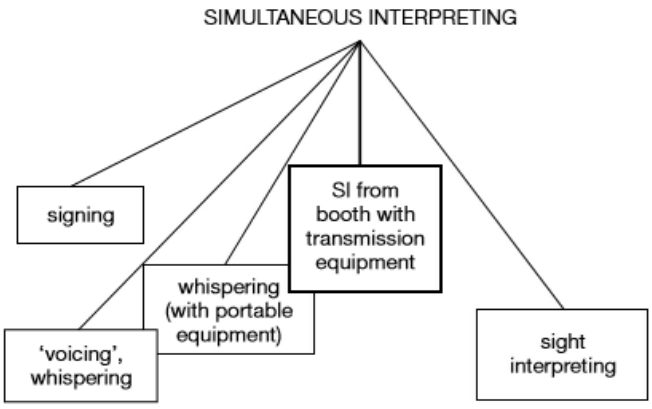
Signing

Signing interpreting in the simultaneous mode – sign-to-sign, voice-to-sign or text-to sign is viable without equipment. Sign-to-voice interpreting is viable with or without special equipment.

Voice-Over Interpreting

Čeňková specifies voice-over interpreting as a specific type of simultaneous interpreting (2008: 26). She argues, that voice-over interpreting is a highly demanding type of SI. The audio element is accompanied by the visual element and the interpreter has to work with both these components in order to provide the audience with sufficient transfer.

Figure 1 – Forms of simultaneous interpreting (Pöchhacker 2003)



3 INTERPRETING STRATEGIES

In the field of interpreting, interpreting strategies are given different names by interpreting researchers. While the majority speaks about interpreting strategies, Gile (2009: 191) terms them "coping tactics" and Jones (2002: 72) describes them as "techniques". This thesis will use the term strategy in line with the majority of researches.

Gambier (2010: 412) implements military definitions for these terms. According to him, a strategy is a procedure or programme, that is planned, explicit and goal oriented, with a procedure/programme adopted to accomplish a particular goal. According to Li (2015: 106) "strategies are intentional and goal-oriented procedurals to solve problems resulting from the interpreters' processing capacity limitations or knowledge gap, or to facilitate the interpreter's task and prevent potential problems. The repeated and successful use of strategies leads to automatic activation. It is then that the interpreter is able to overcome the capacity limitations and make good use of available processing capacity".

Strategies help us to understand interpreting as a process, it helps us recognize the relationship between ST and TT and difficulties of interpreting. Through the analysis of strategies, we can trace what decisions the interpreters took and why did they take them. The analysis of simultaneous interpreting is also an analysis of strategies that were used in order to fulfill a specific communicative goal (Kalina 1998). As Gambier (2010: 412) adds, interpreting strategies include events such as making a deal with the client, terminology mining, delivering the output in a given format and other.

Not only one individual strategy can be applied to a certain point in interpreting. As Li (2015a:6) states, the use of segmentation is often associated with anticipation, waiting and stalling. They all have the same purpose – coping with source-text complexity or coping with the source speech structure. Furthermore, the use of strategies should be controlled, because it may lead to potential information loss, credibility loss, impact loss or time and processing capacity cost (Gile 1997/2002:172). For example, "the use of omission and compression lead to loss of information. The frequent use of repair may harm the interpreter's credibility. The use of waiting means loss of time and storing information in memory, and thus temporarily increases the cognitive load" (Li 2015a:6).

3.1 The importance of interpreting strategies

Interpreting strategies are recognized across the field of interpreting studies as a highly valued element of interpreting. As Li (2015b) states, there are many reasons why interpreting strategies deserve the attention of trainers, practitioners, and researchers.

3.1.1 Interpreting strategies as an aspect of interpreting expertise

According to Bartlomiejczyk (2006:151) "successful repeated use of a specific strategy leads to automation" and "automatic strategic processes reduce the cognitive load of interpreting". The use of interpreting strategies, therefore, should lower the cognitive load and only with the repeated use can this act be automated and therefore helpful. Instructors of interpreting can structure their exercises in such a way that they help novice interpreters automatize the use of strategies before students use them in order to overcome constraints in particular interpreting act (An 2009: 206)

Kalina (2000:7) argues, that strategy application is essential for high-quality performance in interpreting, therefore the education of strategy application should be taken as an essential component of interpreters' education. Professional interpreters know when and how to apply certain interpreting strategy as opposed to novice interpreters who may use interpreting strategies at a wrong time and fail to transfer a coherent message.

3.1.2 Strategic allocation of available processing capacity

The expertise in interpreting is characterized as the result of "well-practiced strategies in each of the comprehension, translation, and production processes, and the interaction among these processes, which are specific to the needs of the task of simultaneous interpreting" (Liu 2009: 159). The interpreter must allocate available processing capacity strategically during interpreting in order to cope with two constraints: cognitive constraints and language-specific constraints (Li 2015: 107). The sources of cognitive constraints include high time pressure, division of attention, extreme speech conditions, and unsatisfying working environment (Kalina 2002:126; Gile 2009:192; Li 2010:19). As Gile (2009: 159) states, problems arise not only during informationally dense, highly technical speeches or fast speeches, but also occur in slow and clear speech segments. Errors and omissions can be found in student interpretations' as well as in speeches of professional interpreters. Gile made several researches in order to

discover errors in interpretations and through his reflections, he developed the *Effort Model* for simultaneous interpretation. This is an essential key for his teaching of interpreting. As stated above, interpreters must strategically allocate available processing capacity. The *Effort Model* discusses the importance of processing capacity and is discussed in the following chapter.

Processing capacity and interpretation Efforts

"The Effort model assumes, that during interpreting, the interpreters' output and adequacy of interpreted information are directly dependent on the sufficient quantity of processing capacity (Čeňková 2008:111). The performance of the interpreter worsens with less processing capacity.

Gile divides his Effort model of SI into four main components or efforts:

I. *The Listening and Analysis Effort* (L) consists of all comprehension-oriented operations – the comprehension of the speakers' communicative goal, analysis of the speech meaning and its interpretation.

II. *The Production Effort* (P) in SI is considered as a set of operations from the mental representation of the message to be delivered to speech planning and the performance of the speech plan.

III. *The Memory Effort* (M) – the function of this effort is to keep the information between the Listening and Analysis Effort and the Production Efforts.

Simultaneous interpretation can be moddelled as a process consisting of the three efforts and the Coordination Effort (C), which is mandatory to coordinate the three other efforts:

SI = L + P + M + C

According to Gile (2009:190), if the required processing capacity exceeds the interpreter's available processing capacity at any given time in the interpreting process, problems arise. By using strategies, the interpreter is allowed to use a minimum amount of processing efforts to get rid of the negative effects of those constraints (Li 2015a: 107).

3.1.3 The theoretical value of interpreting strategies

Interpreting strategies are of great value to interpreting research. By analyzing strategies, we also analyze the process of interpreting. "Interpreting can be analyzed through the strategies applied to achieve the communicative goal" (Riccardi 2005:753). Li argues, that a comprehension of interpreters' use of certain strategies to solve problems "reveals about the relations between the original discourse, the interpreted discourse, the possible problems in interpreting, the strategies applied, the interpreter, and the communicative setting" (Li 2015b:108). The majority of studies are concerned with simultaneous interpreting. There are more than thirty strategies, that can be identified in the literature and further studied.

3.1.4 The pedagogical value of interpreting strategies

Simultaneous interpreting has a multitasking nature and is highly demanding. Among possible factors that could cause difficulties is the division of attention (between listening and production), high time pressure, extreme speech conditions (fast speech tempo, syntactic complexity, speakers with strong accents), high information density (figures, names, lists), and also insufficient quality of working environment (poor sound quality, small booth, poor equipment, etc.) (Riccardi 1998:173; Pöchhacker 2009:135). In addition, interpreters could be limited by their working memory capacity, their insufficient linguistic abilities, and insufficient extra-linguistic knowledge (Gile 1999:154). In order to endure such constraints, "interpreters have to allocate their available processing capacity strategically during the comprehension of the source speech, production of the target speech and monitoring of output" (Li 2015a: 12).

Li (2015) allocates these strategies to the production and comprehension group of strategies. Kalina states, that the use of strategies is dependent on automatic use – automatization of the strategy use will save cognitive capacity for complex operations (Kalina 2000: 6). In *Conference Interpreting Explained* (Jones 2002), Jones argues that interpreters should remain as faithful as possible to the original, and that strategies should be used carefully. On the other hand, they can help interpreters lower the amount of processing effort and enhance the maximum meaning delivery, ease cognitive strain, overcome emergencies and enhance communicative relevance of target-language expression (Li 2015a:13).

The use of load-reduction strategies (summarization, compression, condensing) help the interpreters to avoid the accumulation of untranslated information. This helps to prevent overloading their memory and processing

capacities (Mizuno 2005:750). The use of omission can help students dealing with fast delivery and message redundancy. Furthermore, the use of omission and deletion can help them cope with external difficulties that cannot be influenced by interpreters at the given moment, such as fast delivery rate, high information density, repetition, redundancy and strong accents (Gile 2009:193).

Constraints in SI tend to drive the interpreter's processing capacity to the point of saturation. During SI, interpreters must cope with the speaker and at the same time multitask between analytical listening, producing and monitoring. This leads to possible cognitive overload. Due to these possible constraints that are unique to SI, interpreters should be able to apply mode specific strategies (Li 2015a:14). According to Kalina (1994:221), high time pressure and flow of input and output speeches in SI makes it almost impossible to not be influenced by the interference of source signal and therefore may lead to the use of transcoding strategy. The use of segmentation, salami technique, chunking, paraphrasing, and simplification can counterbalance this cognitive load caused by linguistic difficulty. Interpreters need to learn how to use waiting and stalling, in order to coordinate simultaneous production and comprehension. Li argues that the difference between the ST language and TT (and between the two cultures) can cause additional resource-management crisis, and for that reason language-specific and culture-specific strategies should be included during interpreting training (Li 2015a:15).

Lederer in her work *The Interpretive Theory of Translation: A Brief Survey* (1999: 23) argues, that interpreting consists of 3 processes. Firstly, the interpreter has to understand a sense. Secondly, he/she forgets the language form and retains the sense, and thirdly he/she reproduces the sense in the other language. The second and third step are called deverbalization (2nd) and reverbalization (3rd step). Interpreters should not be influenced by any language-specific constraints as long as they are competent in the source and target language. Therefore, the significance of language-based strategies is minimized. This theory is not supported by Information Processing theorists. According to them, the process of interpreting is full of obstacles, such as cognitive constraints, language-specific and culture-specific obstacles. (Gile 2005:141). These factors that decrease the efficiency of transfer require the use of interpreting strategies, so that interpreters can overcome them and provide sufficient output. Donato (2003:127) argues that interpreters never fully deverbalize the

surface structure of the source text, because language-par-specific constraints require the use of language-specific strategies. Li states that language-pair-specific constraints are in relation with the occurrence of strategies. Similarities between the source language and target language may lower or increase the cognitive load of interpreters. There are several languages that have similar morphology and syntax, interpreting between these languages can be simple for interpreters, because they can follow the surface structure of the source language and his cognitive load is not overloaded by syntactic restructuring. (Li 2015a:18) Problems arise when the languages involved are morpho-syntactically different. The processing capacity of the interpreter may become overloaded, because the interpreter must "process large segments before syntactic disambiguation, keep the processed information in memory, and restructure the message completely to comply with the rules of the target language" (Li 2015a:19)

To deal with culture-loaded words, Wu (2001:85) proposes the use of substitution, omission and paraphrasing strategies. These strategies are classified among the most used strategies, but Pöchhacker (2007:140) argues, that culture references are lost due to the preferred omission strategy which is used by interpreters to cope with culture-specific words.

3.2 Classification of strategies

Interpreting strategies are studied from different perspectives. Some scholars study individual strategies, such as anticipation (Lederer 1978. Chernov 1994, Van Besien 199, Lim 2011, Liontou 2012), and omission (Barik 1971, Jones 2002, Lee 2013). Some researchers try to classify interpreting strategies from the general point of view or divide categories into subdivisions (Kirchhoff 1976, Kalina 1998). Some researchers study the use of different strategies in the context of different variables – strategies coping with extreme speech conditions (Meuleman and Van Besien 2009), culture-loaded elements (Pöchhacker 2007), language-loaded specifics (Riccardi 1995, Donato 2003), or the text type (Galli 1990). Other researchers study the difference in strategy use between professionals or student interpreters in given interpreting scenarios (Kalina 1998; Donato 2003; Bui 2016). Another group of studies focuses on the use of strategies under the impact of different language-pairs (Donato 2003, Riccardi 1995).

As stated before, the research of strategies is mostly focused on the environment of simultaneous interpreting, Kalina (1994) studied which strategies are used in the SI and which in CI. There are many other approaches to the interpreting strategy research. Recently, researchers started to study the inclusion of interpreting strategies in interpreting training. Li devoted his work to classifying strategies. He collected a differentiation of 27 strategies. As visible in the Appendix A – Definitions of strategies, among the most studied one belong anticipation, compression, segmentation, addition, and explaining – strategies that are analyzed in the corpus analysis (Li 2015a).

3.2.1 Strategy group categorization

Because of the heterogeneity of research perspectives and different classifications of various authors, it is difficult to draw a dividing line between different types of strategies (Li 2015a: 10).

Gile (2009) defines his "coping tactics" in SI and classifies them into comprehension, reformulation, and prevention tactics. Donato (2003) classifies strategies into comprehension, reformulation and emergency strategies, and Kalina (1998) defined two classifications of strategies – comprehension strategies and production strategies. In their work, Al-Khanji et al. (2000) defined achievement strategies (strategies that help interpreters to deal with problems that have already influenced them), and reduction strategies (strategies that help interpreters avoid communicative problems). Pöchhacker classifies process-oriented strategies (strategies that help interpreters deal with high input workload), product-oriented strategies (strategies that help interpreters secure effective communication with the audience), and additionally online strategies (strategies that are used during translational cognitive processing) and off-line strategies (strategies that are used before the interpreting task). One of the researchers classifying strategies into strategy groups is Riccardi (2005). She classified strategy into skill-based (strategies that are automatized, internalized and result from procedural knowledge) and knowledge-based strategies (strategies that request conscious analysis by interpreters).

The strategies that have been examined and researched were re-categorized by Li (2015a) in his work *Putting interpreting strategies in their place: Justifications for teaching strategies in interpreter training.* Li categorized all the strategies into four groups: delivery-based strategies, meaning-based strategies, language-based strategies, and knowledge-based strategies.

Table 1 Strategy groups (Li 2015a)

Knowledge-based strategies	non-linguistic anticipation, inference, resorting to world knowledge, visualization, personal involvement, etc.
Language-based strategies	chunking/segmentation/salami, restructuring/changing order, transcodage/transcoding, reproduction, linguistic anticipation, parallel reformulation/substitution, morpho-syntactic transformation, transfer, etc.
Meaning-based strategies	compression/condensation/summarizing/filtering (selection of information, deletion, generalization, simplification), text expansion/addition/ elaboration (explanatory additions, additions to maintain coherence), adaptation, neutralization/evasion, omission/skipping/message abandonment, approximation/ attenuation, paraphrasing/explaining, etc.
Delivery-based strategies	décalage/time lag/extending or narrowing EVS, waiting/delaying response/tailing/stalling (waiting with fillers), repetition, use of prosodic elements (pause distribution, intonation), repair (self-correction), no repair (decision for no repair), monitoring, etc.

Li (2015a:10–11) describes knowledge-based strategies as strategies "that help the interpreter to obtain new knowledge or activate old knowledge to cope with a given problem or avoid a problem from happening. Language-based strategies are those for dealing with dissimilar grammatical structures, or for making use of the similar syntactic structures of the two working languages. Meaning-based strategies are content-processing strategies for coping with comprehension problems, high input speed and/or information density, etc. The use of those strategies may lead to addition or loss of information that may not have a negative impact on communication. Delivery-based strategies are either non-verbal strategies or repair strategies".

4 STRATEGIES DEFINED BY JONES AND BARIK

This study will investigate the occurrence of strategies used in simultaneous interpreting defined by Roderick Jones (2002) and Henri Barik (1971). This study extends the research made by Anh Ngoc Bui in 2016. Bui analyzed strategies that are used by professional interpreters while interpreting the speeches from the European Parliament's plenary session. The subjects of this work are undergraduates.

4.1 Anticipation

Anticipation is one of the techniques interpreters use in SI. In 1978, Chernov proposes his psycholinguistic model of SI in his work (*Teorija i praktika sinchronnogo perevoda)*, where he also introduces the term probability prediction. "*He viewed prediction as fundamental to the simultaneous interpreting process*" (Pöchhacker 2003: 101). The probability prediction is a basic mechanism that allows interpreters to transfer ST into TT during simultaneous interpreting. (Čeňková 2001: 80). The probability prediction – or anticipation, as it is called by many linguists – is a basic element of the ability to speak.

According to Chernov, anticipation is based on the fact that interpreters concentrate on the "rhematic" part of the sentence – the new information. "*Such information density peaks are processed by marshaling available knowledge in a mechanism of probability prediction which operates concurrently on different levels of processing – from the syllable, word, phrase and utterance to the levels of the text and situational context.*" (Pöchhacker 2003: 101).

After the transfer of the first word, the listener is able to create a semantically, syntactically and grammatically correct ending of the sentence. The speaker then continues in his discourse and with each added word, the listener eliminates the possibilities. Interpreters use this strategy because they have a basic theory on what the speakers intend to tell. During the transfer, the interpreters' goal is the same as the speakers'– to transfer information. While the speaker continues, the interpreter either changes his/her anticipated context, or the anticipation strategy is confirmed (Zimnjaja, Chernov 1974: 114). Therefore, during SI, interpreters formulate a hypothesis on the outcome of the speakers' intended message. According to Van Besien (1997), interpreters should be able to use anticipation on a higher level than members of common communication, because anticipation is used in common communication as well as during interpreting, and interpreters should focus on their anticipation technique.

According to Lederer, *freewheeling interpretation,* which is a type of anticipation is more commonly used – "the interpreter produces a constituent in the target language after the corresponding constituent has been uttered in the source language, but so soon afterwards and at so correct a place in his own language that there is no doubt the interpreter summoned it before hearing the original" (Van Besien, 1999, 251).

Van Besien states that interpreters use both top-down strategy and bottom-up strategy. Interpreters use two sources of information, in order to anticipate what the speaker intends to say – linguistic and extralinguistic. Interpreters anticipate thanks to linguistic means provided to them by the source language utterance. In the case of extralinguistic anticipation, interpreters use their situational and general knowledge. Wills argues, that linguistic anticipation is activated by particular linguistic units – words or word combinations which Wills separates into two types of cues: co-textual cues; and parts of idiomatic expressions, verb-complement collocations and standard phrases (Wills 1978: 349-350).

As stated before, anticipation is a feature of normal or monolingual language comprehension, but according to researchers, interpreters are better at it (Pöchhacker 1994). Due to the importance of anticipation, several researchers have created certain anticipation exercises (Van Besien 1999: 252).

Jones argues, that anticipation is very similar to intuition. According to his expertise, anticipation is a constant process of observation. (Jones 2002: 106-107).

4.2 Omissions

Jones (2002) states, that interpreters sometimes find themselves under duress. This can be because of "the technicity of a subject, because of the mode of expression of a speaker, because the speaker is too fast or a mixture of these factors" (Jones 2002:102). If this situation arises, the is only one technique that can be used in order to keep up with the speaker – the strategy of omission.

According to Jones, the faster the speaker speaks, the less time is left for the interpreter to analyze the ST. With less time to analyze what is said, interpreters are more and more dependent on the speaker's words. On the other hand, Jones advises interpreters to maintain distance, so that they can analyze the ST fully and determine, if they can use other techniques such as the salami technique, simplifying, generalizing, general economy of expression and, where necessary – omission.

The use of omission during SI has been discussed in several papers. In the 1960s, Chernov studied the use of syntactic and lexical compression and omission in response to excessive input speed. Also, Kirchhoff (1976/2002:116) presupposed "information reduction (…) through selection (omission of irrelevant information)". Therefore, the omission strategy should not be used every time the interpreter is feeling under duress. The strategy of omission should be used in a controlled manner, with the knowledge of the interpreter and his ability to perceive how the omission strategy will influence the rest of the sentence and the whole text.

The main goal of the interpreter, according to Jones, is to secure and maintain communication, not to provide accurate or even word-for-word interpretation (Jones 2002:98). According to Pym (2008:87–90) using the omission strategy does not necessarily mean lower quality output. The output itself should be evaluated in a broader context, which would allow regressive evaluation of the interpreting process.

As stated before, researchers of interpreting strategies are not unified. There are several different terms designated by different researchers, such as *deletion* (used by Kalina and Donato), *filtering* and *skipping* (used by Al-Khanji, El-Shiyab and Hussein), *reduction* (used by Pippa and Russo), and *omission* (used by Chernov, Barik, Altman, Dornic, Galli, Jones).

This work uses the diversification of omissions by Barik (1971:200-201).

O1 *Skipping omission*

- An omission of a single word or a short phrase;
- Skipping omission usually refers to a qualifying adjective or some related event;
- Skipping omission does not change the grammatical structure of the sentence;
- The loss in meaning is very little.

O2 *Comprehension omission*

- An omission where it appears that the T fails to comprehend or is unable to interpret part of the text;
- The use of this omission leads to an interruption in the interpreter's translation;
- Usually involves bigger units of text;
- The loss in meaning is substantial;
- The use of this omission may lead to disjointed speech of the interpreter.

Delay omission

- An omission that appears due to the delay of the interpreter in his translation;
- The interpreter omits a segment of his choosing in order to catch up with the speaker;
- Barik states that there is no definite distinction between *comprehension omission* and *delay omission*, therefore we will merge these two types of omissions into one category – **O2**.

O3 *Compounding omission*

- The omission of some material, which results in a sentence with compound elements from different clause groupings;
- This type of omission leads to slightly altered meaning.

4.3 Addition

The category of additions includes "new material, that the interpreter adds to the ST in the TT thus changing its meaning" (Pio 2003:75). The types of additions that are proposed by Barik are sorted into different categories and some of them do not change the meaning of the TT.

Čeňková uses a different term for the addition strategy – *řečová dekomprese* (speech decompression). According to Moravcová (2012:34–35), the use of additions is caused by 3 reasons:

i) Insufficient free time to choose the ideal equivalent (the interpreter uses the first equivalent that he/she is able to retrieve from the memory). While interpreting, interpreters have very little time to go through a selection of equivalents stored in their memory. Therefore, they usually choose the equivalent that comes to their mind first – even if it is not ideal and, more importantly, longer.

ii) The second reason for the use of additions may be the speaker's slow tempo, which causes the interpreter to add material, which can in some way elaborate the information given by the speaker. Čeňková states, that very slow tempo may be as difficult to deal with as very fast speech tempo.

iii) The third principle is based on Jones' strategy of explanation. Jones states that the strategy of explanation should be used if there is no ideal equivalent of the ST item in the TT. As there is a difference between the explanation and Barik's definition of addition, these two strategies will be evaluated independently.

Russo and Salvador (2004) define *addition* as the inclusion of units of meaning of any size at the semantic level. In addition, they define *non-relevant addition.* This type of addition does not correspond to the original. Furthermore, additions may have zero value, when no meaningful units are added.

Barik defines addition as a material, which is added outright to the text by the interpreter. Barik does not consider repetitions and false starts as additions to the text and distinguishes four types of additions. Jones, on the other hand, does not define the term addition as such, he defines other techniques, which may lead to the addition of material, such as the already mentioned explanation technique. Jones also defines the summarizing and recapitulation strategy.

The list of Barik's additions (1971:202-203):

A1 *Qualifier addition*

- An addition of a qualifier or a qualifying phrase not in the original version;
- May be used for emphasis.

A2 *Elaboration addition*

- An addition in the form of an elaboration or other straight addition to the text;
- Interpreters may use *Elaboration addition* to elaborate on what the speaker is saying.

A3 *Relationship addition*

- An addition of a connective or of other material which results in a relationship of elements or of sentences not present in the original;
- Relationship additions introduce some new meaning or relationship to what is being said, even if the gist is retained – A1 and A2 elaborate what is being said without altering the meaning.

A4 *Closure addition*

- An addition which accompanies rephrasing, omission or misinterpretation on the part of the interpreter;
- It gives "closure" to a sentence unit but does not add any new substantial material.

4.4 Substitution and Errors

Fablo states, that "substitution is an error category, which involves the change by means of synthesis or the paraphrasing of one or more clauses, or even sentences, and their subsequent replacement with completely new ideas" (Fablo 1998, in Pio 2003:75). This type of change can result in contradictions, ambiguous statements and misinterpretations with respect to the ST message (Pio 2003:75).

According to Barik, the category of substitutions and errors refers to material which is substituted by the interpreter for something that was said by the speaker. Some substitutions can affect the meaning of a single word or a whole phrase, whereas other substitutions hardly affect the meaning of what is being said. Barik defines substitution as a kind of error. According to him, substitution is a combination of omission and addition, but it is considered as an independent category (1971 203-204).

Bui (2016:28) incorporated the strategy of reformulation which was defined by Jones (2002) as a subcategory of substitutions E3, E4, and E5, as the definitions of these categories are in accordance with the reformulation definition by Jones. According to Jones, the need to maintain the right distance from a speaker indicates that the interpreter reformulates the wording of the original.

Donato states, that the strategy of reformulation can be divided into *i)* morphosyntactic transformation – transformation of a subordinate clause into a main clause, of a negative clause into an affirmative clause and of a noun phrase into a verb phrase or vice-versa; and *ii)* Changing the order of phrases or elements of other types within the clause (2003:107). This strategy is used in order to reformulate ST so that the transfer of the main idea into TT is faithful but also sounds natural. Jones states, that reformulation strategy should be used in case there is not any equivalent available. Furthermore, "the constant objective of the interpreter is to provide a correct translation of the original in a form that sounds as natural and as authentic as possible in the target language […] which means, that reformulation should be used by the interpreter for stylistic reasons" (Jones 2002:82).

Barik (1971:204-206) defines 5 types of Errors:

E1 *Mild semantic error*

- An error or inaccuracy of translation of some lexical item, which slightly alters the meaning;
- Mild semantic errors which may be associated with an awkward translation;
- The error is restricted only to the lexical item or expression, it does not affect the whole unit of which it is part.

E2 *Gross semantic error*

- Error of translation of some lexical item, the use of this technique substantially changes the meaning of what is said;
- Error in terms of a specific item – does not affect the rest of the unit;
- Can be caused by a misunderstanding of the interpreter, by a misunderstanding of homonym or near-homonym, or confusion in reporting with a near-sounding word;
- Error caused by a confusion that has a basis in the text.

E3 *Mild phrasing change*

- Phrasing change caused by the interpreter. The interpreter's statement does not say quite the same thing as the ST, but the essence of the message is not affected.

E4 *Substantial phrasing change*

- Change of phrasing that affects the meaning of the message, but the overall gist of it is not misrepresented.

E5 *Gross phrasing change*

- Results in a gross difference in meaning;
- Reformulation that is caused by the interpreter due to a misunderstanding of a phrase in ST, lack of comprehension of what is said, substantial time-lag behind the speaker, etc.

4.5 The Salami Technique

According to Jones, interpreters need to express themselves in short and simple sentences, but problems arise when speakers use long and complicated sentences (Jones 2002). Donato (2003:107) distinguished 3 types of reformulations, one of which she defines as the *syntactic segmentation*. The s*yntactic segmentation* splits long, difficult sentences into short, simple sentences. The interpreted version should then be even more comprehensible than the OT. Jones recognizes the Salami Technique as an individual technique, whereas other authors incorporate this technique into their more general strategy of reformulations. Researchers are not unified, and therefore we can find many more names of this strategy, such as *chunking* (used by Kalina 1998, Kader and Seubert 2014), *segmentation* (Donato 2003, Gile 2009).

4.6 Simplification

According to Jones, almost every interpreter at some point in time encounters a task of interpreting highly technical material. In this case, it is not only desirable but even necessary to simplify a speech. There are two reasons as to why to use the simplification strategy. One is that the speech is highly technical, and the interpreter cannot render all the details despite thorough preparation. The other reason is that the interpreter can render everything, but the audience cannot understand the original speech. Interpreters that use this strategy may find themselves on thin ice because it is not their job to judge the audience and their main goal is to remain faithful to the speaker. In case a professional speaks to laymen in the wrong register, simplification can be applied. The use of simplification can put the interpreter into a difficult position because someone from the audience may recognize that some material was omitted. The interpreter must recognize how to sacrifice the less important to the more important (Jones 2002:98–99).

4.7 Generalization

Generalization may be mistaken for the simplification strategy. Sometimes, if the interpreter feels that technical simplification is not necessary, "a number of specific items can be expressed in one generic term" (Jones 2002:102). Donato (2003:102) defines simplification as a synthesis, which entails compression of the ST. The technique of generalization should be used only where appropriate. Interpreters tend to use generalization when the speaker's tempo is very fast, but the interpreter must continue to constantly analyze the material – so that he can recognize from the context, whether the list of specific items needs to be interpreted or whether is one generic term enough.

4.8 Summarizing and recapitulation

The interpreter may be feeling that the audience does not totally understand what was said by either the speaker or the interpreter. In such cases, the interpreter should not edit what was said by the speaker and remain as faithful as possible to the OT. The interpreter can add material by summarizing or recapitulating what a speaker already said and what the interpreters themselves already interpreted – if he/she feels that the audience has failed to understand the essence of the message. This strategy can be used if the interpreter has time so that he/she can clarify what is unclear because of the speaker (Jones 2002:104).

As Jones states, the summary is added to the full text, it does not replace the full text. This technique is not used so that the interpreter may reconstruct the text again and repair his own mistakes.

4.9 Explanation

Sometimes interpreters can encounter material in the ST that has no direct equivalent in the TC. In this case, it is ideal to explain the term to the audience. If the interpreter finds it problematic to fit in any explanation, this should not influence the rest of the ST – as the interpreter should rather skip over the explanation than to waste time by explaining something and skipping over other material. The example made by Jones is the explanation of the term "*the TGV*". Interpreters may interpret a speech about French railroad system by adding the phrase "*the French high-speed train*" every time they encounter the term "*TGV*", or they could use the technique of explanation, thus when they encounter the term for the first time "slip in" the explanation: "*the TGV, that is, the French high-speed train*" (Jones 2002:104–105).

4.10 Golden Rules of Interpreting

Before Jones provides the readers with his techniques of simultaneous interpreting, he enumerates his set of Golden Rules of Interpreting. Jones states that these alone if followed should improve the performance of interpreters even before readers of his book begin to apply strategies that are discussed in detail in his work.

According to Jones (2002:72), the simultaneous interpreter must:

- remember they are communicating;
- make the best possible use of technical facilities;
- ensure they can hear both the speaker and themselves clearly;
- never attempt to interpret something they did not hear or understand acoustically;
- not be distracted by focusing attention on individual problematic words;
- cultivate split attention, with active, analytical listening to the speaker and critical monitoring of their own output;
- use, where possible, short, simple sentences;
- be grammatical;
- make sense in every single sentence;
- always finish their sentences.

5 SPEECH TEMPO

The influence of the speech tempo on the quality of interpreting is frequently researched. Speech tempo is one of the main variables that "often causes additional stress to the already fatiguing task of SI and may undermine the quality of the interpreter's performance" (Pio 2003:69).

Speech tempo is influenced by several factors such as individual, demographic, cultural, linguistic, psychological and physiological factors (Yuan, Liberman and Cieri 2006); therefore, the speech tempo is different for every speaker. Other main factors that influence speech tempo are language, the type and genre of discourse, environment, physiological aspects, actual situation, etc. (Nelešovská 2005, 46). Furthermore, each language has different average speech tempo. Grosjean and Deschamps for instance found out that the French language has a faster speech tempo than the English language (Grosjean and Deschamps 1972). The age of the speaker is an important variable as well. Yuan, Liberman, and Cieri (2006) state, that old people have a slower speech rate than younger speakers. Speech tempo influences the level of understanding and perception. The speech rate should not be very fast nor very slow. The "perfect" speech tempo should be driven by the need to render a high level of understanding. A fast speech tempo is difficult to follow, while a slow speech tempo can be fatiguing.

5.1 Speech tempo types

Zima (1959:99) differentiated 5 types of speech rates, which he then divided into two groups – a group of extreme rates and a group of standard speech rates. The group of standard speech rates consists of a neutral rate, a slow rate, and a swift rate. The group of extreme rates incorporates an extremely slow speech tempo and an extremely fast speech tempo.

Bartošek (2005, 15) argues, that the common speech can be classified in terms of many factors, through which he defines swift speech tempo, neutral speech tempo, and slow speech tempo. Other types of his classification are the functional tempo (pragmatic, stylistic, genre-based and euphonic), the individual tempo (based on the personality and psychosomatic state of the speaker), the factual tempo (measured) and the subjective tempo (dependent on the point of view of the speaker/audience).

Dellwo et al. (2006:101) state, that the speech tempo can be studied from 3 perspectives: intentional, acoustic and perceptual. In their study, they categorized speech tempos into *very slow, slow, normal, fast* and *very fast.* Rivers

(1981, in Vančura, 2013:91) also differentiates 5 speech tempos – fast: above 220 wpm, moderately fast: 190–220 wpm, average speech rate: 160-220 wpm, moderately slow: 130–160 wpm, and slow: below 130 wpm. In comparison, the average speech rate for the Czech language is from 95 to 105 words per minute (Nelešovská 2005:109-110).

However, the classification listed above cannot be applied to SI – many authors state that the speech rate suitable for SI must be slower, due to the processing capacity requirements (Gile 1995:172). The ideal speech rate (100–120 wpm) for SI was suggested by AIIC at a symposium on interpreter training in 1968. This suggestion was tested in 1969 by Gerver. According to him, the subjects of his research had problems to transfer the material correctly and the ear-voice span and pausing increased (Pöchhacker 2003; Gerver 1969).

5.2 Speech Tempo vs. Interpreting Strategies

Speech tempo in interpreting has been of focus to many interpreting researchers. Many authors state, that the problem of fast delivery rate can be resolved by the use of interpreting strategies. Interpreters are exposed to many factors and have to split their attention into many tasks including listening, analysis, production, short-term memory and coordination (Gile 1995). During fast input, interpreters use almost all their attention reserves for listening and attention effort, and little energy is left for other tasks.

Li (2010:20-24) states, that fast speeches in a conference interpreting environment could lead to a number of problems, namely, mistranslation and loss of information. If we consider a conference as a meeting of people with the sole purpose of information sharing, loss of information and mistranslation could be a massive failure of this purpose. Li thus introduced coping strategies that could help the interpreters who get into such problems during a conference. Interpreters should use these strategies when encountering fast tempo: *request the speaker to slow down, speed up the interpreting tempo, use summarization, terminate the service.* Though his strategies are simple, the use of all of his proposed strategies have a threshold, that cannot be crossed. Although they all, when applied, can help the interpreter, in case of the threshold being crossed these strategies all lead to the ultimate possibility – termination of the interpreting service.

Anyele (2014, in Bui 2016:33) proposes strategies that can be used while interpreting speeches in a fast rate, such as generalization, summarization, simplification, recapitulation, segmentation, transcoding, parallel reformulation,

naturalization, etc. Anyele also suggests specific strategies that should be used while coping with slow speech tempo – explanation, paraphrase, ST sound imitation, naturalization, alteration of listing order, monitoring of the transferred material and back reconstruction.

5.3 Speech tempo research in SI environment

David Gerver (1969/1976)

Gerver tested the recommended speech tempo (suggested by AIIC in 1968) for simultaneous interpreting in 1969. Gerver detected, that interpreters had a problem to transfer material that was presented in speech tempo faster than 120 wpm. Interpreters lagged behind, and the number of discontinuities and omission increased proportionally.

Alois Krušina (1971)

Krušina studied the density of utterance in different languages. According to him, the Czech language has a higher density than the English language. In 100 words, there are 210 – 296 syllables per minute, while in the English language, there are 130 – 189 syllables per minute. During a fast speech tempo, interpreters have to use the summarizing strategy and the condensation strategy (Krušina 1971, in Moravcová 2012:19)

Hella Kirchoff (1976)

The output of interpreters in case of the high speech tempo which cannot be slowed by any means (the interpreter cannot contact/signal the speaker to slow down) influences all factors of interpreting. However, Kirchoff argues, that very slow speech speed also negatively influences the interpreting process, due to a high load on the interpreters' memory effort (Kirchoff 1976:113).

Ghelly V. Chernov (1978, 1994)

Chernov studied anticipation strategies and probability prediction, which he labeled as fundamental to the simultaneous interpreting (Pöchhacker 2003:101). Chernov also studied reductive content-processing strategies. He states, that lexical or syntactic compression or omission strategy should be used in order to cope with high input tempo (Pöchhacker 2003:134).

E. Janovcová (1980)

Janovcová studied the difference in speech tempos in spontaneous and prepared speeches. She discovered that the speech tempo of a spontaneous speech is approximately 200 syllables/minute, while the tempo of a prepared speech is 250 syllables/minute. Janovcová states, that the transfer of the material at the speech rate of 300 wpm cannot be transferred adequately (Janovcová 1980:321).

Catherine Stenzl (1983)

In her work, Stenzl introduced her Communicative information flow model, in which she argued that interpreted texts tend to be shorter than the source text if the source text is provided at fast speech tempo. She also states that the source message is not perceived identically by the speaker and the interpreter. Interpreters may have problems to hear/apprehend the message and the target text may be affected (Stenzl 1983).

Ivana Čeňková (1988)

The issue of tempo is also studied by Ivana Čeňková in her work *Teoretické aspekty simultánního tlumočení.* She stresses the importance of the tempo of the speaker because the interpreter depends on it – the tempo of the interpreter corresponds to the tempo of the speaker. However, the tempo of interpreters always lags 20-50 syllables/min behind the tempo of the speaker.

According to Čeňková, the tempo of the speaker should neither be very fast nor very slow, as both of these extremes influence the output quality of the interpreted version. (Čeňková 1988; in Moravcová 2012:21).

Valeria Daró (1994)

In her study *Non-linguistic Factors Influencing Simultaneous Interpretation* (1994) Daró argues, that interpreters speech rate is dependent on i) the speaker's speed, ii) the direction of translation, iii) the type of the text to be translated iv) strategies used by the interpreters v) the level of language proficiency of the interpreter and vi) on his/her physiological abilities (Daró 1994:255).

Daró studied the cognitive load on both the brain hemispheres. According to her, high speech tempo, due to rapid articulation ability, leads to a greater participation of the right hemisphere. "The right hemisphere is generally known for controlling the suprasegmental features of language" – therefore, fast speech

tempo can be partly responsible for difficulties controlling intonation, prosody, and pronunciation (Daró 1994:267).

Sonia Pio (2003)

Pio's work tried to determine whether the input high speech tempo really influences the output of interpreters. She compared interpreting performances of novice interpreters and professional interpreters. Her evaluation criteria included use of interpreting strategies such as *omissions, substitutions, additions,* and *logical-time sequence errors.* According to her findings, with the increase of fast speech rate the occurrence of all interpreting strategies was not proportionately influenced. Only the occurrence of omission strategy proportionately increased.

Ewa Gumul a Andrzej Łyda (2007)

In their work, Łyda and Gumul focused on the use of strategies that are used by interpreters while dealing with fast speech input. They located text–editing strategies – *omission* and *generalization* – that interpreters choose in order to deal with these situations. Other strategies, that can help the interpreter to cope with the speaker are *ear-voice span* regulation and economy of expression. According to Gumul and Łyda, the connection between the use of interpreting strategies and speech speed tempo is clearly visible.

Daniel Gile (2009)

Gile in his work states, that very slow speech tempo can increase the workload on the short-term memory capacity. If the processing capacity is exceeded, then the output of the interpreter cannot be sufficient. Gile also suggests the use of strategies that require little time and processing capacity during fast output such as *omission, naturalization,* and *approximate repetition*.

Alma Vančura (2013)

In her work, Alma Vančura's analyses regarded the question of whether fast input speed decreases the quality of TT. She categorized ST tempo into slow, standard, and fast, and studied the correlation between ST speech rate and the success of the TT transfer (Vančura 2013:85-99)

5.4 Calculation of speech tempo

There are two approaches used to measure the tempo of a speech – calculating the number of syllables per minute (Krušina 1967, Déjean le Féal 1978, Čeňková 1988, Pöchhacker 1993), and calculating the number of words per minute (Gerver 1969, Yuan, Liberman and Cieri 2006, Li 2013). These two approaches are the *articulation rate* and the *speech rate* respectively. The articulation rate can be measured by calculating the number of syllables per second. This type of calculation includes pauses and hesitations, while the speech rate is calculated by dividing the word count by the length of the discourse in seconds (words per second).

Gerver supports the second approach due to the fact that a syllable is semantically empty and therefore it cannot carry the meaning of the text and transfer the message. This claim is supported by Pöchhacker. According to him, syllables are not usable due to the differences of languages. In his work *On the Science of Interpretation* Pöchhacker states, that it is impossible to convert syllable count from words by a factor, but the factor is a variable that changes due to the technical difficulty of the text and also due to the syntactic and morphological structure of words and sentences. According to Pöchhacker, Eastern researchers tend to analyze texts in terms of syllables per minute, while Western researchers (most notably of the Paris School) have usually calculated the delivery rate in words per minute.

Pöchhacker's opinion is confirmed by Czech researchers – Krušina, Zima, Čeňková. Krušina states, that it is more convenient for the Czech language to analyze speech tempo in terms of syllables per time unit.

6 EMPIRICAL RESEARCH

6.1 Methodology of research

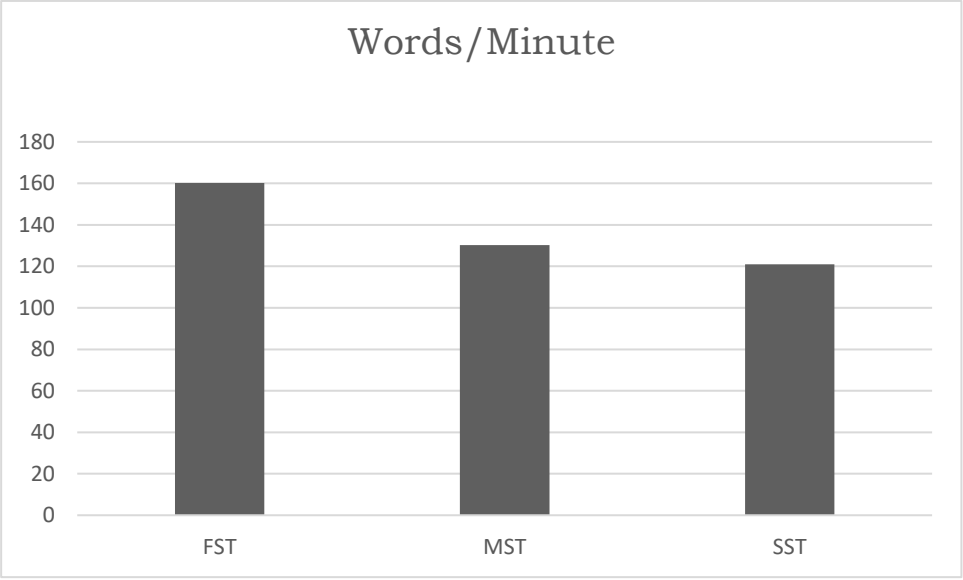
The research of this thesis analyzes bilingual corpus which consists of original texts in English and target texts in Czech. The target texts were collected at the Faculty of Arts of the Palacký University Olomouc. The analysis examines three different parts of TT, each delivered at a different speech tempo, and compares the occurrence of interpreting strategies used by novice interpreters at different speech tempos.

6.2 Speech tempo of the research material

There are two types of possible speech tempo analysis – calculation of articulation rate or calculation of speech rate. The speech rate is calculated by dividing the total amount of syllables by the unit of time (unit of time = whole speech/part of speech). The articulation rate is calculated by dividing the total amount of words by the total unit of time in seconds. The result is then multiplied by 60. For our analysis, we will use the calculation of the articulation rate.

The ideal speech rate (100–120 wpm) for SI was suggested by AIIC. The total length of the analyzed speech is 8 minutes and 37 seconds long. We selected 3 parts that are delivered at 3 different tempos – *Fast Speech Tempo*, *Medium Speed Tempo and Slow Speed Tempo* (Figure 2).

Figure 2 – Delivery pace comparison



The part delivered at FST is 164 words long, with a duration of 62 seconds. The MST part is 139 words long, the duration thereof being 64 seconds and the SST part is 121 words long and its duration is 60 seconds. Therefore, the delivery pace in words per seconds of FST, MST, and SST are 2.67 wps, 2.17 wps and 2.02 wps respectively.

Figure 3 – Speech Tempo Classification

	No. of Words	Duration (s)	W/S	W/M
FST	166	62	2.67	160.6
MST	139	64	2.17	130.3
SST	121	60	2.02	121.0

The part at SST is, therefore, one word per minute above the ideal speech rate. As this part is at the boundary of ideal speech rate, we expect a lower occurrence of strategies used at this tempo.

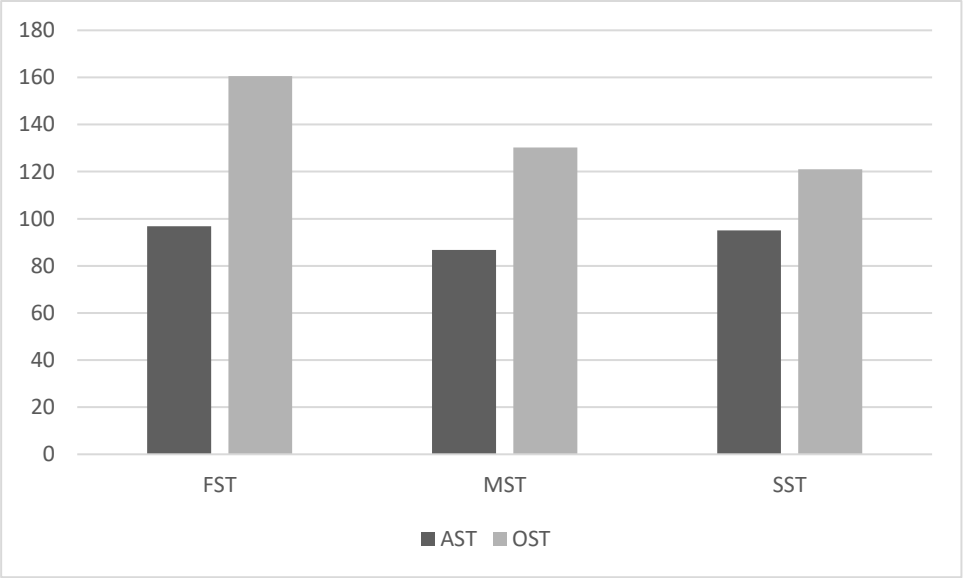
The part with 130.3 wpm is considered to be slightly above the ideal speech tempo threshold. The *word per second* rate increased by only 0.15 *words per second*, therefore, we expect the occurrence of interpreting strategies to be higher, yet the increase should not be immense.

The part with 160,6 wpm – the part at FST – is faster by 40.6 wpm. We expect that this increase in tempo should trigger frequent use of interpreting strategies.

6.2.1 Comparison of Source Text Tempo and Target Text Tempo

The corpus is comprised of the source text and target texts interpreted by novice interpreters. There are 3 source texts at 3 different tempos and their relative counterparts interpreted by novice interpreters. According to most researchers (Čeňková, Gile, Jones, and others), the interpreter tries to keep up with the speaker when the speaker speeds up. As visible in Figure 4, novice interpreters did not follow this rule. Speakers kept the closest tempo at the slowest speech rate, and at MST and FST, they lagged behind the speaker (OST). At the SST rate, their average speech tempo (AST) was 95 wpm, at MST 86.7 wpm and at FST 96.8 wpm.

Figure 4 – Speech Tempo Comparison



6.3 Text Corpus

For this research was created a small bilingual corpus. The corpus is based on original speech made by Andras Forgacs in English and transcripts of the given speech in the Czech language. The Andras Forgacs' speech given at the TED Global conference was held in Scotland in 2013. It was divided into several parts, and three parts with different speech speeds were chosen for the purpose of this research, the FST, MST and SST parts. The original recording at the FST is 62 seconds long, the MST part is 64 seconds long and the SST part is 60 seconds long.

The interpreted versions are the outcome of the comprehensive exam which precedes the Final State Exam at the Palacký University Olomouc.

6.4 Subjects

The subjects of this research were Andrasz Forgacs and novice interpreters attending the English for Translation and Interpreting study program at the Palacký University Olomouc. The students provided their interpreted version during the comprehensive exam. The comprehensive exam evaluates the practical interpreting skills of students which they have acquired in seminars and during practical trainings. Students of the English language for Translation and Interpreting study program have to demonstrate their practical translation/interpreting skills. Students take the exam either on translation or on interpreting.

The exam takes part in the multimedia lab. Students are used to the lab and its equipment; they practice in it throughout their studies and therefore are not exposed to an unfriendly environment.

6.5 Equipment

The simultaneous interpreting took part in the multimedia classroom. The classroom is equipped with desks that are fitted with dividers. Therefore, the environment for the SI was not at the same level of quality as a conference simultaneous interpreting in a booth, but the subjects that were being examined are used to this environment and were not exposed to an unfriendly or unknown environment. Each desk is equipped with a pc and a headset.

6.6 Speaker

Andrasz Forgacs is a TED speaker and TED attendee. He is an entrepreneur in tissue engineering. Andrasc Forgacs is a co-founder of Organovo, which uses 3D bioprinting to create human tissues and co-founder of Modern Meadow, a company that develops biomaterials. Forgacs cooperates with TED and is a long-time contributor to TED Blog. He speaks in English, French, and Hungarian.[2]

The speaker usually reads the text from a reading device, and the audience is provided with a presentation. Forgacs is a level-headed speaker, his presentation is smooth, and he maintains eye contact with the viewers.

[2] https://www.ted.com/speakers/andras_forgacs

6.6.1 TED Speeches

TED is a non-profit organization. Its main concern is to spread ideas in the form of short talks. The first TED conference was held in 1984. TED nowadays covers almost all topics in more than one hundred languages. TED posts free videos on YouTube and their own webpage, where anyone can see their videos for free. The organization holds several conferences around the globe.

The main TED Conference is held twice a year on the North American West Coast, the content including science, business, the arts, technology, and global issues. This is the biggest TED conference, with more than fifty speeches. TEDGlobal is another type of conference, that does not have a stable position. TEDGlobal moves around the Earth and is more internationally engaged. Conferences of TEDGlobal were held in the UK (2005, 2009, 2010), Tanzania (2007), Scotland (2011, 2012, 2013) and Brazil (2014). The speech used for our research is from the TEDGlobal conference held in Scotland in 2013. TED has several more conferences held yearly such as TEDWomen, which is a three-day conference, TEDYouth, a conference for middle and high school students, and other conferences such as TED Salons, TEDIndia, TED Talks Live, and TEDCity2.0.[3]

Speeches at TED conferences are always prepared. They are never read from the paper, but speakers can use audiovisual tools that they can use during the presentation. Every speaker can look at his or her own monitor to see what slide is projected at the given moment. Furthermore, TED speeches are always timed, speakers must observe how much time do they have left. Therefore, they can adapt their speech tempo accordingly.

6.6.2 Original Speech

The original speech was given at the TED Global conference. The speech is time-limited and therefore prepared in advance. According to Barik (1977), speeches that are prepared in advance are more fluent in comparison to improvised texts. Andras Forgacs cooperates with TED for several years and is used to the structure of TED speeches.

The speaker uses a presentation as a visual aide. There is a segment in the original speech, where he refers to the visual aide, but it does not influence the speech or interpreters.

[3] "Conferences." TED, www.ted.com/about/conferences.

6.7 Segmentation

The original speech was divided into several parts. All parts were analyzed and 3 parts that have similar length and different speech tempos were selected. The transcripts of the original speech were then analyzed and assigned to the corresponding part.

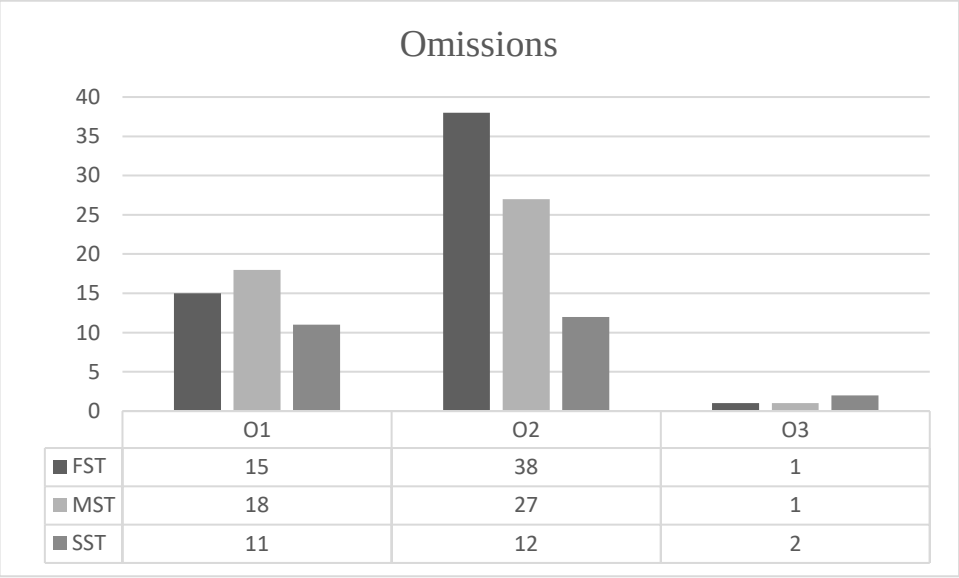
6.8 Results

6.8.1 Omission

The omission refers to missing material, which is normally present in the OT but is missing in the translation. Barik divides omissions into four subgroups, but in this analysis only three divisions are made (Barik 1971).

The use of omissions was the most used strategy by the novice interpreters. This result was expected, as the omission strategy was discovered as the most used strategy in several different studies (Kalina 1998; Sunnari and Hild 2010; Bui 2016).

Figure 5 – Omissions



The highest presence of omissions from each separate group was expected during the FST, but as is visible in the chart above, this expectation was fulfilled only with the occurrence of group O2. In total, the highest number of occurrences is during the FST. The highest representation was of omissions O2, the group specified by Barik. Barik states, that there are four groups of omissions (*skipping o., comprehension o., delay o., compounding o.),* furthermore, he states that *the delay omission* could be seen as a subcategory of *comprehension* omission and

that the division of these two omissions is highly subjective. During the analysis, we followed the categorization of Anh Ngoc Bui and merged the *comprehension omission* and *delay omission* into group O2.

The most frequent type of omission was the O2 omission. The difference of incidence is much bigger at different speech rates than it is in the other groups of omission strategies. The higher occurrence of omissions during FST is seen as a coping strategy that novice interpreters are using in order to keep up with the delivery speed rate of the speaker.

The occurrence of omissions is not in accordance with the research theory made by Fernández (2015), which states, that the speech delivery rate does not modify the difficulty of the message. The occurrence of omissions increases with the faster delivery speech rate. These numbers indicate that novice interpreters are strongly influenced by the delivery speech rate and that the demand on their working capacity and listening and analysis effort is exceeded. This leads to a higher usage of the omission strategy, although the occurrence of omissions O1 does not fully correspond with this theory and the importance of speech content is notable as well.

O1, *skipping omission* is an omission of a single word or a short phrase. The skipping omission usually refers to a qualifying adjective or a short phrase which is omitted by the interpreter. The main characteristic of this type of omission is that "[it] does not alter the grammatical structure of the sentence and results in very little loss in meaning" (Barik 1971).

This type of omission does not correspond with the theory of Fernández (2015), as the occurrence does not increase with a higher speech rate. The interpreters use this strategy when the transfer of all words is impossible, and interpreters are focusing on the transfer of the crucial material. As some words may be redundant and the need to transfer these words may be unimportant, the final interpreted text bears an adequate message without the change or loss of meaning. Jones states, that the use of this strategy is acceptable within the context of simultaneous interpreting.

Below are examples of O1 from corpus analysis.

Example 1:

ST	TT
And so, I'm very excited to show you, for the first time, the first batch of our cultured leather, fresh from the lab.	*Jsem teda nadšen, abych vám mohl ukázat naší první várku biofabrikované kůže.*

The phrase *"for the first time*" is an adverbial phrase, the omission of this phrase reduces the listener's knowledge, but it can be stated, that the main meaning of the message is not altered. There is another O1 example in this sentence: the phrase *"fresh from the lab"* is also not transferred by the interpreter. This adverbial phrase of place can be omitted due to the contextual information provided by the speaker in the preceding part of the speech.

It should be also noted, that interpreters omitted the two occurrences of the word *"first".* None of the interpreters repeated this qualifying adjective twice in their TT.

Example 2:

ST	TT
It is not limited to the irregular shape of a cow or an alligator.	*Není to limitováno tvarem krávy nebo krokodýla.*

This is a typical sample of skipping omission. The qualifying adjective *"irregular"* is not transferred by the interpreter. It could be argued, that the adjective may be an important part of the sentence, but the interpreter transferred everything else in the sentence and therefore the main message is not altered.

Example 3:

ST	TT
The animal could be a cow, lamb, or even something more exotic.	*Může to být například kráva nebo něco exotičtějšího…*

Barik states, that the *skipping omission* is mainly a qualifying adjective, but it can also be a conjunction or a preposition, due to the restructuring of the sentence. (Barik, 1971). In this sentence, the noun *"lamb"* is omitted. It can be argued, that this part of speech does not belong to the O1 group, but as there is a list of 3 animals from which one is omitted, we regard this as an example of O1.

O2, *comprehension omission* and *delay omission* are strategies that lead to an obvious change of meaning. Barik states, that these omissions lead to a discontinuance of the interpreting (Barik 1971). O2 can appear when interpreters are not able to cope with the speed of the speaker, lag behind the speaker and therefore omit whole phrases.

Below are examples of O2 from corpus analysis.

Example 1:

ST	TT
And because we make this material, we grow this leather from the ground up, we can control its properties in very interesting ways.	*Můžeme také kontrolovat vlastnosti této kůže.*

In this example, the translator did not transfer a huge part of a sentence. The omission of this material is crucial for the audience because the speaker is describing the process and stating the reasons why the product can be "controlled". By using this strategy, the meaning of the message is changed.

Example 2:

ST	TT
To grow leather, we begin by taking cells from an animal, through a simple biopsy. The animal could be a cow, lamb, or even something more exotic. This process does no harm, and Daisy the cow can live a happy life.	Abychom vypěstovali kůži, odejmeme teda buňky ze zvířete. Může to být kráva, ovce nebo něco i exotičtějšího. Toto vůbec neovlivní vůbec to zvíře.

The omission of the phrase *"through a simple biopsy"* critically affects the meaning of the sentence. It provides the audience with crucial information. The speaker then refers to this term, and by omitting this material, the interpreter cannot provide listeners with the necessary equivalent.

Example 3:

ST	TT
…we take this multilayered skin and through a shorter and much less chemical tanning process, we create leather.	…tím vytvoříme tlustší pláty a ty potom dáme dohromady a provedeme proces činění, díky čemuž vytvoříme kůži.

In the preceding section is stated, that qualifying adjectives predominantly belong to the O1 group, but in this case, the omission of the adjectival phrase *"a shorter and much less chemical"* seriously affects the message. It can be argued that the interpreter omitted the most important part of this utterance.

O3, *compounding omission* is a deletion of material, which then leads to transfer of material that was not connected before. Barik states, that this is rather uncommon, this statement is supported by our analysis.

Below is an example of O3 from corpus analysis.

Example 1:

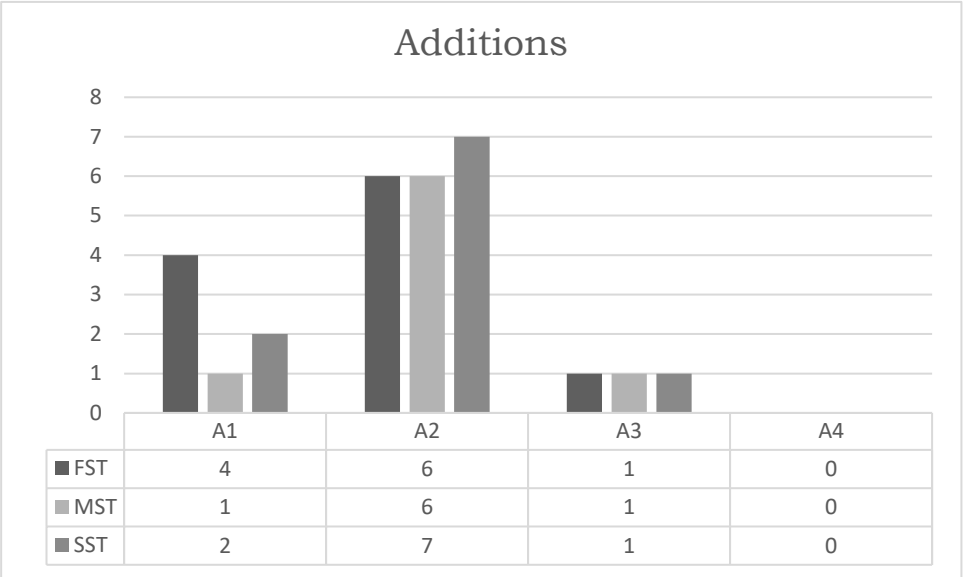
ST	TT
And because we make this material, we grow this leather from the ground up, we can control its properties in very interesting ways. This piece of leather is a mere seven tissue layers thick and as you can see, it is nearly transparent.	Jak tyto...jak kůži pěstujeme od začátku, je pouze 7 milimetrů tlustá a jak vidíte je to transparentní.

In the above example, the two sentences in the ST were not directly connected. With the omission of the phrase *"we can control its properties in very interesting ways"* the unconnected elements now stand in the same sentence and the meaning is slightly changed. Barik argues that the O3 omission is quite interesting, as it does alter the meaning, but the gist of the message is transferred.

6.8.2 Addition

The concept of addition is an interpreting strategy that refers to a material, which is added to the text by the interpreter. Repetitions and false starts are not rendered as additions made by the interpreter.

Figure 6 – Additions



	A1	A2	A3	A4
FST	4	6	1	0
MST	1	6	1	0
SST	2	7	1	0

The corpus analysis shown disproved our expectation that more additions would be used during the medium and slow speech speed because interpreters have more time to add additional material. The most used type of addition is **A2**. This addition elaborates on the given information or directly adds new material. The number of occurrences does not gradually increase as the tempo of the speech slows down. Addition **A4** – *closure addition* – did not occur in the text as it is used in order to give "closure" to a segment. Closure additions can be used automatically by the interpreters during a dialogue when it is crucial to distinguish the end of one speech and the beginning of another.

The addition **A1** – *qualifier addition* – was recognized at all three speech tempos. This type of addition does not alter the meaning.

Below are examples of A1 from corpus analysis.

Example 1:

ST	TT
We can mimic nature, but in some ways also improve upon it.	Můžeme doslova imitovat přírodu.

Example 2:

ST	TT
And what we next do is we take the cells and their collagen, and we spread them out to form sheets, and then we layer these thin sheets on top of one another…	My tedy vezmeme tyto vypěstované buňky, vytvoříme z nich pláty a ty navrstvíme na sebe…

Example 3:

ST	TT
To grow leather, we begin by taking cells from an animal, through a simple biopsy. The animal could be a cow, lamb, or even something more exotic. This process does no harm, and Daisy the cow can live a happy life.	Jak to uděláme, abychom mohli v podstatě vypěstovat kůži, tak vezmeme buňky z původních zvířat jako jsou například krávy a tento proces jim nijak neubližuje a krávy můžou žít dlouhou dobu.

The most frequent addition in the corpus analysis was the *elaboration addition* – **A2**. In the following examples, the interpreter elaborates what the speaker is saying. According to the corpus analysis, the speech rate of the speaker does not influence the number of this type of addition.

Below are examples of A1 from corpus analysis.

Example 1:

ST	TT
This is real, genuine leather, without the animal sacrifice.	Toto je opravdová pravá kůže, aniž by přitom utrpělo zvíře a jakékoliv škody.

Example 2:

ST	TT
What could the future of animal products look like?	A když se nad tím zamyslíme, jak by tedy mohla vypadat budoucnost našich zvířat?

Example 3:

ST	TT
It need not look like this, which is actually the state of the art today. Rather, it could be much more like this.	Nemusí vypadat tak, jak je dnes, jak můžete vidět. Může vypadat spíše takto, jako je na tomto dalším obrázku.

All the above examples of A2 at least slightly alter the meaning, as the additional information elaborates the given material. Noteworthy is example no. 3, which shows how the interpreter transfers nonverbal communication into verbal communication by addition.

Addition **A3** – the *relationship addition* – is an addition of a material which results in a relationship of elements, that was not present in the ST. The occurrence of this addition is rather unique, as supported by the results of corpus analysis.

Below is an example of A3 from the corpus analysis.

Example 1:

ST	TT
To grow leather, we begin by taking cells from an animal, through a simple biopsy. The animal could be a cow, lamb, or even something more exotic.	Abychom mohli vypěstovat kůži, tak musíme použít v biopsii jednoduchou buňku z nějakého zvířete, ať už je to kráva či prase.

The connective *"ať už"* links the two individual sentences and alters the meaning. We argue, that this addition could affect the understanding of the given message.

Other types of additions

Henry Barik (1971, 203) argues, that apart from the four above mentioned additions, there are other additions that he deems as insignificant and too few in numbers. Among these types are the *addition of connective, the addition of specification, the translation of language-specific items, the addition of preposition,* and the *addition on the part of the interpreter of extraneous material or comment not related to the text.*

Several of these types were found in the addition. The most used was the addition of the connective "and". Novice interpreters have a tendency not to end sentences. This is highly recognizable by the monotonous intonation and the addition of the "and" connective.

Example 1:

ST	TT
We then isolate the skin cells and multiply them in a cell culture medium. This takes millions of cells and expands them into billions.	Potom je multiplikujeme na...skrz médium, a které je expanduje a vyrobí jich miliardu…

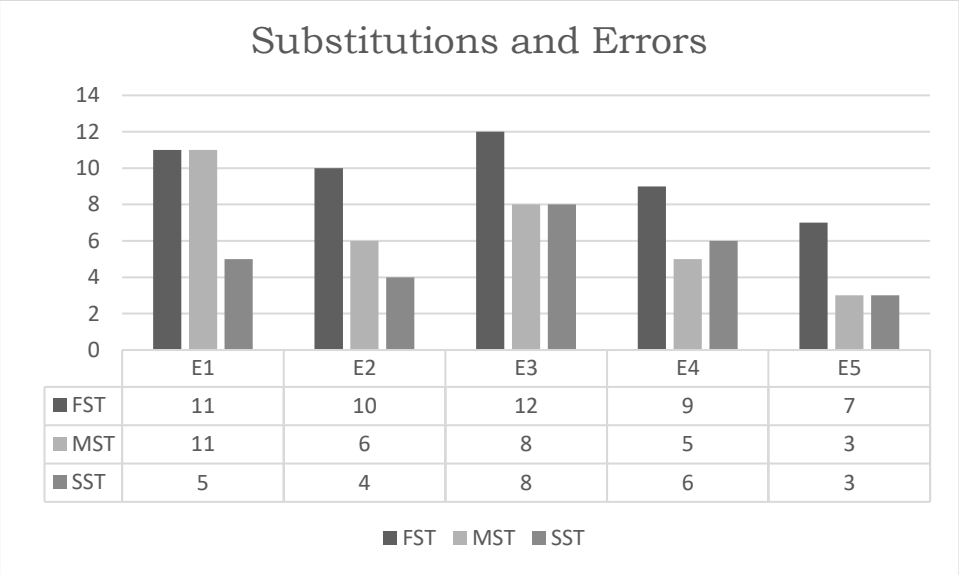
The second used addition was the *addition of specification*. This strategy substitutes the definite article "the" with demonstrative pronouns.

ST	TT
And what we next do is we take the cells and their collagen, and we spread them out to form sheets, and then we layer these thin sheets on top of one another…	My tedy vezmeme tyto vypěstované buňky, vytvoříme z nich pláty a ty navrstvíme na sebe…

6.8.3 Substitutions and Errors

Barik (1971, 204) describes substitutions and errors as material that is omitted by the translator and exchanged by an addition. It can be a single word or a whole sentence. Some substitutions have almost no effect on the transferred material and the meaning of the message, whereas other substitutions can completely change the meaning thereof. The number of occurrences highly differs between the FST, NST, and SST. As the production speed slows down, interpreters do not abuse this strategy.

Figure 7 – Substitutions and Errors



	E1	E2	E3	E4	E5
FST	11	10	12	9	7
MST	11	6	8	5	3
SST	5	4	8	6	3

It is visible, that all the categories of substitutions and errors were predominantly used at the FST. E1 and E2 refer to semantic errors, E3, E47, and E5 refer to the change of phrasing.

E1 – *mild semantic error* refers to "error or inaccuracy of translation of some lexical item" (Barik 1971:204). This strategy concerns only one lexical item or expression.

Below are examples of E1 from the corpus analysis.

Example 1:

ST	TT
And this leather is 21 layers thick and quite opaque.	Tato kůže má 21 vrstev a už přes ni nevidíte.

The substitution of "quite opaque" for an antonym does not alter the meaning. A more suitable would be the word-for-word translation "*neprůhledná*". The use of negation is acceptable with Slavic languages.

Example 2:

ST	TT
And so, I'm very excited to show you, for the first time, the first batch of our cultured leather, fresh from the lab.	Takže s velikou radostí vám ukážu první ukázku naší čerstvě vyrobené kůže z laboratoře.

The interpreter did not transfer the correct equivalent of the word "*batch*", yet he/she did not use *simplification* either. Nevertheless, the meaning of the message remains the same.

Example 3:

ST	TT
It can have all the characteristics of leather because it is made of the same cells…	Má vše, veškeré charakteristiky kůže, protože se skládá ze stejného…vytvořeno ze stejných buněk…

In example 3 above, the interpreter did not transfer the modal *"can"* and only transferred the lexical verb *"have"*. However, in this context, the gist of the message remains untouched.

E2 – a *gross semantic error* is a substitution of a word that significantly changes the meaning of the transferred message. As with E1, this strategy concerns only one lexical item or expression (Barik 1971: 204).

Below are examples of **E2** from the corpus analysis.

Example 1:

ST	TT
What could the future of animal products look like?	Jak tedy může vypadat budoucnost zvířat.

The interpreter chose to translate the word *"products"* with the word *"zvířat"*, which changes the meaning. The translated equivalent of that word is the word *"produktů".*

Example 2:

ST	TT
This takes millions of cells and expands them into billions.	Získáme tedy miliony těchto buněk.

Due to the fast speech speed, the interpreter could not cope with the speaker and omitted the number *"billions".* The use of this strategy alters the meaning, and the listeners are given the wrong information.

Categories E3 to E5 refer to strategies that concern whole phrases. **E3** – *mild phrasing change* – refers to a soft alteration of the expression. The translator chooses different wording, but the gist of the message remains untouched.

Below are examples of **E3** from the corpus analysis.

Example 1:

ST	TT
This takes millions of cells and expands them into billions.	Získáme tedy miliony těchto buněk.

The interpreter chooses a different verb which slightly alters the meaning. More suitable equivalents of the verbs *"takes"* and *"expands"* would be *"vyžaduje"* and *"rozmnoží"*.

Example 2:

ST	TT
This leather can be grown in the shape of a wallet, a handbag or a car seat.	Z ní můžeme potom vyrobit kabelky či potahy na sedačky aut.

The interpreter mistranslated the word verb phrase *"leather can be grown"*. The suitable equivalent would be *"kůži můžeme vypěstovat".*

E4 – A *substantial phrasing change* is a reformulation that changes the meaning of the phrase, while the essence of the main message remains.

Below are examples of **E4** from the corpus analysis.

Example 1:

ST	TT
It can have all the characteristics of leather because it is made of the same cells…	Podívejte se na vlastnosti této kůže, je vytvořená ze stejných buněk…

The right equivalent for the phrase *"it can have all the characteristics of leather"* should be *"může mít všechny typické vlastnosti kůže"* instead of the phrase *"podívejte se na vlastnosti této kůže".* The meaning of the sentence is changed but the gist remains.

Example 2:

ST	TT
And finally, we take this multilayered skin and through a shorter and much less chemical tanning process, we create leather.	A je to několikavrstvá kůže a potom skrz vyčinění z toho uděláme kůži.

The interpreter substituted the phrase *"we take this multilayered skin"* with a verb with a different meaning. Furthermore, the interpreter chose to provide the translation with an addition *"potom"* which is not in the original. Another change in this segment is the omission of the qualitative AP *"much less chemical".*

E5 – *gross phrasing change* – is a type of substitution, which leads to substantial change of the meaning. Gross phrasing change can occur because of mistranslation, a difference in meaning resulting from omission, error due to a misunderstanding, and addition of some material on the basis of some part of the text (Barik 1971:206).

Below are examples of the **E5** strategy from the corpus analysis.

Example 1:

ST	TT
And because we make this material, we grow this leather from the ground up, we can control its properties in very interesting ways.	Když vypěstujeme tuto kůži z jedinečné buňky tak můžeme dosáhnout daleko dalších úspěchů.

The interpreter completely mistranslated the whole phrase *"we can control its properties in very interesting ways"*. The original does not contain any material, which would guide the interpreter to this kind of transfer. The gist of the message is changed entirely.

Example 2:

ST	TT
And we then coax these cells to produce collagen, as they would naturally.	Oni, když je dáme do kultivačního média, tak sami vytvoří pojivovou tkáň kolagen.

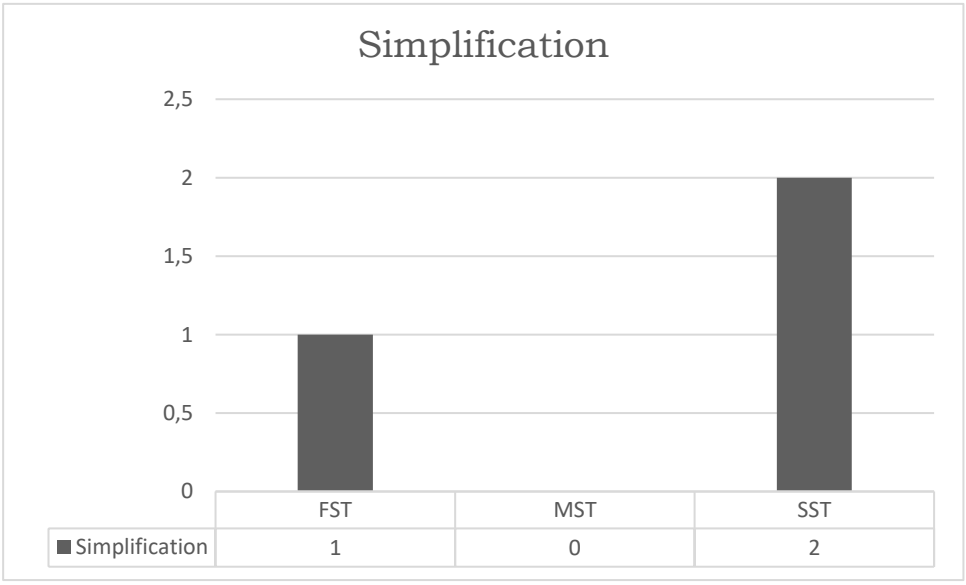
Here the interpreter completely mistranslated the phrase *"we coax these cells to produce collagen"*. The gist of the message has been changed completely. The audience receives a misinterpreted version and therefore is not provided with the right equivalent.

6.8.4 Simplification

According to Jones (1998, 98-99) simplification is predominantly used while transferring highly technical texts. The speech that was analyzed during this research is not considered to be highly technical, as the OT was designed to be presented to a general audience. Therefore, the simplification strategy was not used as often, though it could help novice interpreters to cope with the speaker while filtering redundant material.

According to our corpus analysis, novice interpreters do not use this strategy often. The reason can be their urge to translate as many technical terms as possible. Unfortunately, this behavior can lead to an increase in use of different strategies.

Figure 8 – Simplification



Example 1:

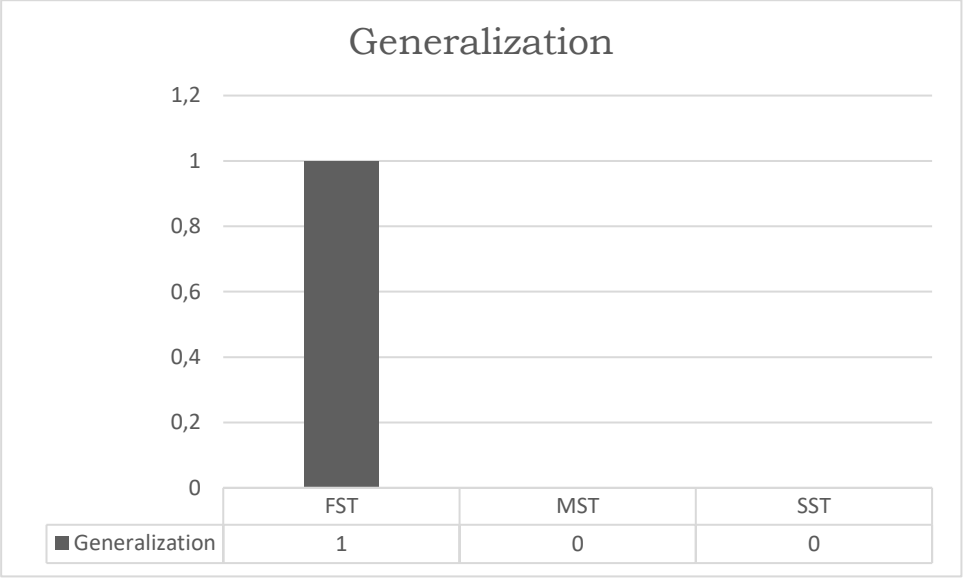
ST	TT
And so, I'm very excited to show you, for the first time, the first batch of our cultured leather, fresh from the lab.	A teď vám ukážu první, naše první výrobky z naší laboratoře.

The interpreter chooses to transfer a different (and simple) term. This simplification still transfers sufficient meaning to the target audience while helping the interpreter to cope with the speech speed.

6.8.5 Generalization

The *generalization* strategy uses more generic terms or hypernyms of more specific terms. Jones states, that this strategy can be used by interpreters due to the fast speech. The speech used for the corpus analysis is not highly technical and therefore we recorded only one occurrence of this strategy (1998, 98).

Figure 9 – Generalization



Example 1:

ST	TT
And what we next do is we take the cells and their collagen, and we spread them out to form sheets, and then we layer these thin sheets on top of one another, like phyllo pastry, to form thicker sheets, which we then let mature.	Takže vezmeme tuto tkáň, z ní pak vytvoříme vrstvu, a pak tyto vrstvy budeme na sebe vrstvit, něco jako u listového těsta, abychom vytvořili silnější vrstvu.

As is visible in the example above, the interpreter did not transfer the noun phrase "*the cells and their collagen"* but he used hypernym *"tissue".* The gist of the message remained the same, while the interpreter was able to save time and cope with the speaker.

The Salami Technique

6.8.6 The Salami Technique

The salami technique was not used in the analyzed text. We find the lack of occurrence in the corpus mainly due to the type of text that has been analyzed. The speech provided by Andras Forgacs was prepared for the general audience of the TED community. These speeches are highly structured and timed. The speakers need to convey as much information to the audience as possible in the easiest manner, therefore the sentences, though complex, were easily transferable.

6.8.7 Summarizing and Recapitulation

Jones states, that this strategy could be used to summarize or recapitulate what the speaker has already said, and what has already been interpreted, if the interpreter suspects that the audience had trouble to understand the interpreted version. This strategy should be used only if the interpreter in question has the space to explain something unclear (2002, 104).

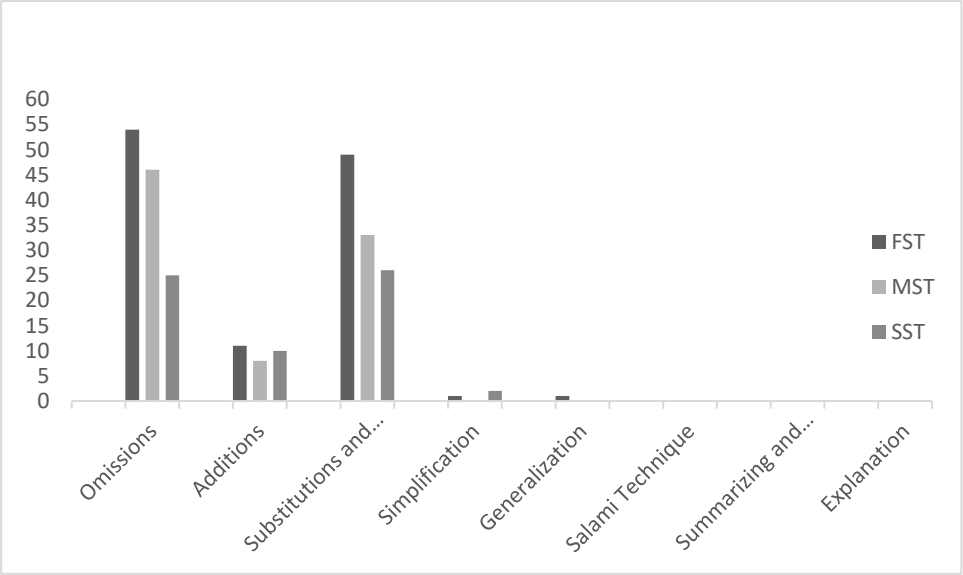
As this speech is well structure, prepared and easily understandable, the analysis of the corpus did not discover the use of this strategy.

6.8.8 Explanation

Jones (2002, 105) advises to use the explanation strategy when the interpreter must transfer material which does not have a direct equivalent in the target language. This strategy could be also used if the interpreter thinks that the audience is not familiar with that concept.

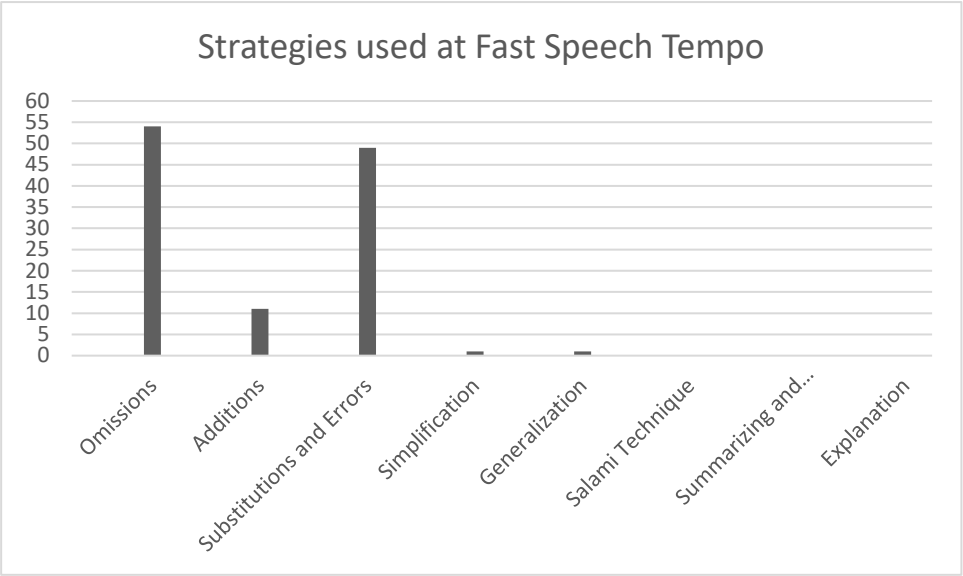
6.8.9 Overall Use of Strategies

Figure 10 – Overall Use of Strategies



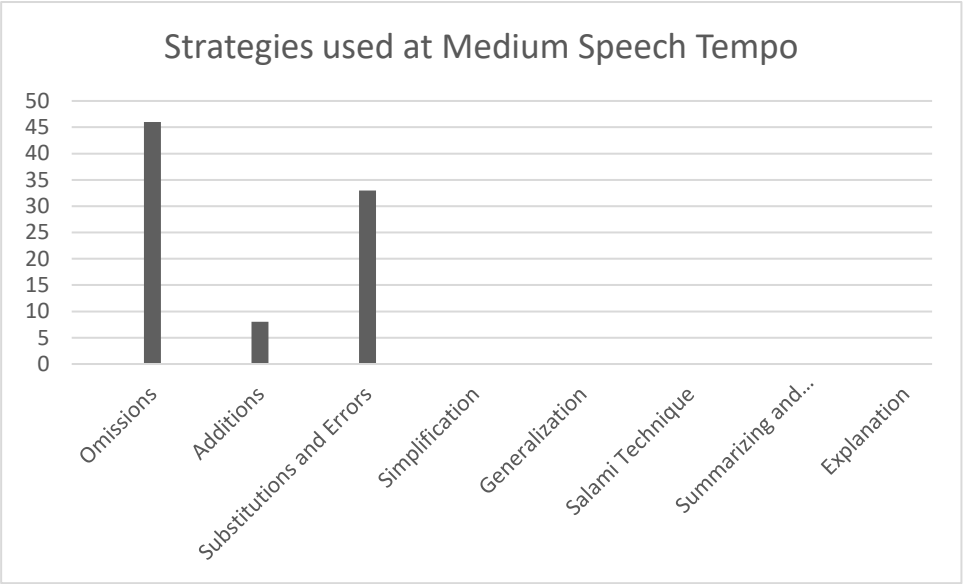
As is visible in Figure 10, the use of omissions, additions, and substitutions and errors is much higher than the use of other strategies. Novice interpreters are expected to be using omissions more than professionals but, as Jones states, the omission strategy is used in order to cope with the speaker. Since all the speech tempos were either at the edge of the ideal range or above it, the use of this strategy was highly expected. The second most used strategy – substitutions and errors – slightly copied the curvature of the omission strategy occurrence. The use of simplification strategy and generalization strategy was very low, other techniques that Jones recommends using instead of omission strategy, such as simplification, generalization or salami technique, were not found in the corpus analysis.

Figure 11 – FST Strategies



The omission strategy was the most used strategy in the FST part. Since many researchers (Gile, Barik, Jones) state that interpreters use the omission strategy to cope with the speaker, this strategy was expected to be the most used strategy at FST. We evaluate the use of simplification and generalization at the FST as an attempt to unload the cognitive capacity. The salami technique, summarizing and recapitulation and explanation strategies were not used at the FST.

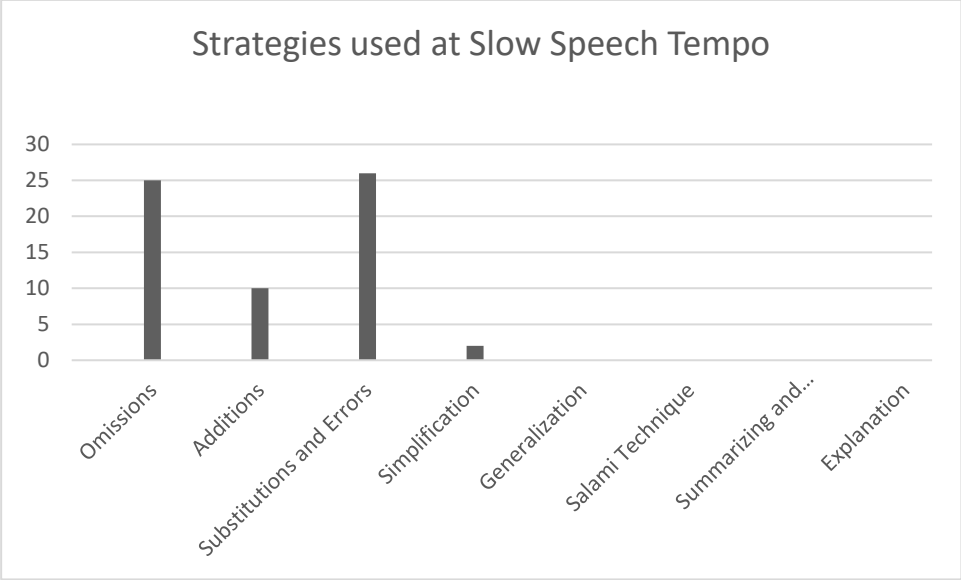
Figure 12 - MST Strategies



The use of all strategies at the MST in comparison to the FST part was much lower. The average tempo of the MST part was slower by approximately 30 wpm; therefore, the lower occurrence of strategies was to be expected. We have not monitored any occurrence of *simplification*, *generalization*, the *Salami*

technique, *summarizing* and *recapitulation and explanation* strategy at the MST. Novice interpreters preferred the *omission* strategy and the strategy of substitutions and errors. The number of occurrences of *addition* strategy was lower in comparison to the FST.

Figure 13 – SST Strategies



The previous two figures prove our research question – that the use of omission will be the most frequently used strategy of novice interpreters. However, at the SST, the strategy of omission was not the most used strategy, due to substitutions and errors being used more frequently. This could show that students are familiar with the consequences that the use of omission strategy carries and try not to use it as a dominant strategy.

7 DISCUSSION

This thesis worked with the presupposition brought forward by many authors, namely that interpreters tend to use the strategy of omission while interpreting speeches at a fast delivery rate (Gerver 1969, Barik 1971, Kalina 1998, Gile 2009). The corpus analysis tried to verify this presupposition and answer the following research questions:

What are the most common types of strategies used by novice interpreters?

The analysis of 7 TTs provided by novice interpreters attending the English for Translation and Interpreting study program at the Palacký University Olomouc proved, that novice interpreters prefer *omissions* and *substitutions strategies* to other strategies that may be less impactful to the TT. The strategies allocated most frequently were the *omission strategy*, the *substitution* and *errors strategy,* and the *addition strategy*. The occurrence of other strategies such as summarizing and recapitulation, the salami technique and explanation was not detected, and the use of simplification and generalization strategies almost negligible.

Does the change of speech tempo affect the use of interpreting strategies?

The corpus analysis revealed that the number of occurrences of *omissions,* and *substitution and errors* at different speech tempos noticeably differ. The corpus analysis recorded a proportional increase of strategy use in parts that were delivered at faster speech tempo.

This proportional increase is confirmed by the number of occurrences of the **O2** strategy. On the other hand, the use of **O1** and **O3** do not follow this trend. The use of **O2** omission leads to an obvious change in meaning and therefore this trend should be cautiously monitored in further researches.

The use of *additions* did not occur as expected. According to Jones (2002), the addition of material should occur at slow speech tempos as the interpreters have more time to fill in additional material. However, the use of the *addition strategy* by novice interpreters was higher at the FST.

All categories of substitutions and errors were predominantly used at the FST. Only the 01 strategy had the same number of occurrences at the FST and MST. We evaluate the frequent use of **M3** positively, as it refers to a soft alteration of the expression, but the essence of the message remains untouched.

Is the omission strategy the most frequent interpreting strategy of novice interpreters?

The corpus analysis proved the results of preceding researches, which determine that interpreters tend to prioritize the omission strategy (Gerver 1969, Barik 1971, Kalina 1998, Gile 2009, Bui 2016). The use of omission strategy in comparison to the use of substitutions and errors was higher by 10% at the FS and 39% at the MST. At the SST rate, the use of omission was lower by 4%.

According to the results, the use of the omission strategy is preferred by the novice interpreters at fast speech tempos, but when their working memory is not overloaded due to the high delivery tempo, they try to favor other strategies, such as the substitution and simplification strategy.

The corpus analysis detected that student interpreters do not master all strategies. The salami technique was not used at any speech tempo and trainees tend to use the addition of connectives instead. This leads to long compound sentences which may be harmful to the text.

Neither the strategy of explanation nor the strategy of summarizing and recapitulation were used at all, both of which cannot be ascribed to the type of text.

The strategy of simplification occurred three times in the corpus analysis. 66% of simplifications were used at the SST which implies that students do not use this strategy automatically and rather prefer a word for word translation.

The comparison of substitutions indicates that trainees select strategies that are not that harmful to the text. Student interpreters prefer E1 and E3 strategies, which have almost no effect to the transferred material and the meaning of the message.

The results of the analysis showed a relative influence of the delivery speech rate on the use of interpreting strategies by novice interpreters. The number of interpreting strategies increased proportionally. On the other hand, the use of additions, which is expected to be used at slow speech tempo did not exceed the number of occurrences at the FST.

The use of omissions did exceed the use of other strategies at the FST and MST, but at the SST, novice interpreters used the strategy of substitutions and errors more proactively. Although the hypothesis that the omission strategy is the most used strategy of novice interpreters at FST speeches was confirmed, it is noteworthy, that interpreters do not overuse this strategy with speeches at slow speech tempo.

8 CONCLUSION

The aim of the corpus analysis was to uncover the use of interpreting strategies of novice interpreters and establish whether the speech tempo influences the use of interpreting strategies. The original speech was delivered by Andras Forgács at the TEDGlobal conference. Subjects of this research were novice interpreters attending the English for Translation and Interpreting study program at the Palacký University Olomouc.

The first chapter of the thesis focuses on the introduction to simultaneous interpreting and its types. The typology is based on Čeňková and Pöchhacker. The second chapter focuses on the introduction to the interpreting strategies. This chapter tries to analyze interpreting strategies. We try to describe approaches to the issue of interpreting strategies and their aspects, describe the theoretical and also the pedagogical value of interpreting strategies, as the work analyzes the outputs of interpreting trainees. We then introduce the classification of strategies and demonstrate the disparity of different study approaches to the issue of interpreting strategies.

The third chapter introduces strategies that are defined by Jones and Barik. Their strategy classification is also supported by other researchers that dealt with the issue. We decided to add strategies by Barik to ensure sufficient analysis of the strategies.

The fourth chapter focuses on the speech tempo issue. We classify the speech tempo and compare the influence that interpreting strategies add to the study of speech tempo. The end of this chapter is devoted to the calculation of speech tempo and different approaches to this issue.

The fifth chapter represents empirical research. We first introduce the methodology of research, subjects, equipment, speaker and text corpus and results of the analysis.

The results of the analysis showed relative influence of the delivery speech rate on the use of interpreting strategies by novice interpreters. The number of interpreting strategies increased proportionally. On the other hand, the use of additions, which is expected to be used at a slow speech tempo, did not exceeded the number of occurrences at the FST.

The use of omissions did exceed the use of other strategies at the FST and MST but at the SST novice interpreters used the strategy of substitutions and errors more proactively. Although the hypothesis that the omission strategy is the most used strategy of novice interpreters at FST speeches was confirmed, it

is noteworthy that interpreters do not overuse this strategy while interpreting the text at slow speech tempo.

We also noticed the usage of simplification and generalization strategies, but the number of occurrences is low. The corpus analysis uncovered that students did not use all the strategies: trainees did not use *explanation*, the *salami technique,* and *summarizing and recapitulation*.

The results of this analysis could be used by interpreting instructors. Interpreting instructors could train students to develop the ability to observe and analyze their own interpreting. Students tend to overuse the O2 omission, which may occur this often because students lag behind the speaker and their memory capacity is overloaded. Students should be instructed on time-management and learn how to cope with the speaker at fast speech tempos by using other, less harmful strategies.

RESUMÉ

Tématem diplomové práce jsou tlumočnické strategie a vliv mluvního tempa na jejich použití. Tato práce se snaží zmapovat problematiku přístupů k tlumočnickým strategiím a mluvnímu tempu. Vzhledem k nejednotnosti přístupů k tématu tlumočnických strategií se zaměřuje zejména na strategie, které lze aplikovat během simultánního tlumočení. V práci hledáme odpověď na tři výzkumné otázky: *Jaké jsou nejběžnější typy strategií používané u začínajících tlumočníků? Ovlivňuje změna tempa řeči využití tlumočnických strategií? Je vynechávka nejfrekventovaněji používaná strategie začátečníků tlumočení?* Tato diplomová práce vychází z hypotézy mnoha autorů, že mluvní tempo představuje jedno z hlavních úskalí simultánního tlumočení (Gerver 1969, Gile 1995).

Simultánní tlumočení v dnešní době přestavuje hlavní typ tlumočení v konferenčním prostředí. Díky rozmachu technologií se od Druhé světové války upřednostňuje tento druh tlumočení a samotné simultánní tlumočení je rozděleno do mnoha typů, které se snažíme popsat na základě typologie dle Pöchhackera (2003).

Ve druhé kapitole se zabýváme problematikou tlumočnických strategií. Tlumočnické strategie jsou jedním z častých předmětů výzkumu. Zaměřili jsme se na představení tlumočnických strategií a jejich významu pro tlumočení. Vzhledem k rozmanitosti v přístupech k tlumočnickým strategiím jsme se zaměřili na pedagogický a teoretický význam těchto strategií v tlumočnickém výzkumu a přiblížili dosavadní výzkum tlumočnických strategií. Na druhou kapitolu navazuje třetí kapitola, která vzhledem k nejednotnosti terminologie, volí klasifikaci tlumočnických strategií dle Rodericka Jonese (2002), která je doplněna o teorii *vynechávek, přidávání* a *substitucí a chyb* podle Henriho Barika (1971), která k těmto strategiím přistupuje detailněji a umožnuje tak lepší analýzu těchto strategií.

Ve čtvrté kapitole představujeme problematiku mluvního tempa. Vysvětlujeme, jakým způsobem ovlivňuje mluvní tempo využití tlumočnických strategií a popisujeme výzkum mluvního tempa v prostředí simultánního tlumočení. Závěr této kapitoly věnujeme problematice výpočtu mluvního tempa.

V úvodu páté kapitoly je popsána metodologie empirického výzkumu. Dále popisujeme mluvní tempo projevů, které jsou využity při výzkumu, charakterizujeme korpus, účastníky výzkumu, popisujeme typ zdrojového textu a také vybavení. Na závěr představujeme výsledky analýzy, které jsou doprovázeny příklady z korpusu.

Na základě výsledků z naší analýzy jsme potvrdili, že začátečníci tlumočení dávají přednost strategii *vynechávky*, která je pro ně v danou chvíli nejjednodušším řešením. Počet využití tlumočnických strategií roste se zvyšujícím se mluvním tempem řečníka. Rychlé mluvní tempo je pro začínající tlumočníky problematické a tito tlumočníci ještě nemají zautomatizované jiné typy strategií, jako je *generalizace*, *simplifikace*, či *salámová technika*, které by byly vhodnější a nejsou tak drastické jako jsou strategie *vynechávání* a *substituce*. Data naznačují, že *vynechávky, substituce* a *přidávání* jsou nejčastějšími strategiemi, které začátečníci tlumočení upřednostňují a využití ostatních tlumočnických strategií je buď minimální nebo nulové.

APPENDIX A: STRATEGIES AND THEIR DEFINITIONS

Taken from Li (2015a)

Strategies	Definition
1. Anticipation (SI and CI)	The interpreter predicts the incoming text and produces a target text segment before it is uttered by the speaker based on linguistic cues (lexical collocations, supra-segmental features, certain syntactic structures, etc.) and knowledge cues (understanding about the topic, speech context, etc.), in particular when the two working languages have asymmetrical structures (SOV vs. SVO languages).
2. Compression/ condensation/ summarizing/ filtering (SI, CI and ST)	The interpreter finds an economic way of expression by summarizing and generalizing the semantic content of the original, deleting what is repetitive or redundant, and selecting the most important information, in particular when facing high time pressure.
3. Omission/ skipping/ ellipsis/ message abandonment (SI, CI and ST)	The interpreter, in particular under high time pressure or when facing interpreting difficulties, deletes superfluous or redundant expressions, repetitions, unimportant utterances, incomprehensible input, untranslatable elements, or message that is unacceptable in the target discourse.
4. Chunking/ segmentation/ salami (SI and ST))	The interpreter breaks the source discourse (particularly long and complex sentences) into meaningful units which are interpreted linearly following the principle of "first come, first processed," so as to process the incoming message without causing "saturation" of his or her processing capacity.
5. Text expansion/ addition/ elaboration (SI, CI and ST)	The interpreter adds something absent in the source text, such as discourse markers (connectives, etc.) and rhetorical phrases, so that the target text sounds more logical and coherent for the audience.

6. Waiting/ delaying response/ stalling/ tailing (SI, CI and ST)	The interpreter waits and delays production (waiting/delaying response/tailing), or produces generic utterances that are absent in the source discourse and provide no new information (stalling), so as to enable him or her to access more incoming text for meaning disambiguation.
7. Approximation / attenuation (SI, CI and ST)	The interpreter is not able to retrieve an ideal counterpart for a segment of the source discourse and uses a near-equivalent term or a synonym.
8. Paraphrasing/ explaining (SI, CI and ST)	The interpreter is not able to find an appropriate equivalent for one segment of the source discourse, and explains the intended meaning of the original segment.
9. Morpho-syntactic transformation (SI, CI and ST)	The interpreter departs from the surface structure of the original language and expresses the meaning using different syntactic constructions from those of the original (conversion of negative clauses into affirmative clauses, of subordinate clauses into main clauses, and of verb phrases into noun phrases, etc.).
10. Décalage/time lag/extending or narrowing EVS (SI, CI and ST)	The interpreter manages his or her available processing capacity by extending or narrowing the Ear-Voice-Span so as to devote more effort to listening (known as Eye-Voice-Span in ST).
11. Transcodage/ transcoding/calque (SI, CI and ST)	The interpreter is unable to grasp the overall meaning of the original and decides to use a word-for-word approach by sticking to the surface structure of the original language.
12. Parallel reformulation/ substitution	The interpreter cannot understand elements of the original and decides to invent something that is different from the original

(SI, CI and ST)	but more or less plausible in the communicative context, so as to avoid long pauses or unfinished sentences.
13. Restructuring/ changing order (SI, CI and ST)	The interpreter reformulates segments of various types in one position in the source discourse in a different position in the target discourse so as to enable better production.
14. Inference (SI, CI and ST)	The interpreter recovers information that is forgotten, not comprehended or not heard by relying on the source speech context and his or her general knowledge.
15. Repair (SI, CI and ST)	The interpreter makes corrections when he or she finds distortions of the original meaning intended in his or her interpreting, realizes a better way of expressing what has been said, or detects contradiction between his or her anticipation and the incoming discourse.
16. Evasion/ neutralization (SI, CI and ST)	The interpreter avoids committing himself or herself to a definite position when ambiguities exist or when the source discourse fails to provide sufficient specification.
17. Visualization (SI and CI)	The interpreter strengthens his or her understanding and memory of the original message by exercising his or her imagination and forming a mental picture of the content of the original speech when dealing with a descriptive message.
18. No repair (SI, CI and ST)	The interpreter finds errors in his or her reformulations, but thinks they are trivial and that corrections cause more harm than help, and decides to leave them as they are. It is considered a strategic decision because it is a conscious choice not to make repairs when monitoring the output, which is different to making errors of which the interpreter is not aware.
19. Reproduction (SI, CI and ST)	The interpreter is unable to translate an unknown term in the original, and leaves it in the target discourse as it appears in the original.
20. Transfer (SI, CI and ST)	The interpreter uses target language words that are etymologically or phonetically similar to those in the source language.

21. Resorting to world knowledge (SI, CI and ST)	The interpreter connects the message of the original speech with his or her own knowledge on a given field.
22. Adaptation (SI, CI and ST)	The interpreter adapts the source message so that it fits the target discourse conventions or culture.
23. Personal involvement (SI, CI and ST)	The interpreter takes an active part in the content of the original by showing agreement, disagreement, surprise, or identification with the original.
24. Monitoring (SI, CI and ST)	The interpreter monitors what has been interpreted to check if it is necessary to revise previous anticipations or hypotheses.
25. Repetition (SI, CI and ST)	The interpreter repeats previously-processed information by means of synonyms as a way of enhancing lexical accuracy.
26. Pause distribution (SI, CI and ST)	Pauses serve to divide discourse into tone groups and meaning units in oral communication. The interpreter uses pauses strategically to assist communicating content to the audience.
27. Intonation (SI, CI and ST)	The interpreter resorts to paralinguistic cues, such as the rising or falling of intonation to achieve speech cohesion and help listeners to disambiguate the intended meaning of the utterance.

APPENDIX B: BILINGUAL CORPUS

ST

To grow leather we begin by taking cells from an animal, through a simple biopsy. The animal could be a cow, lamb, or even something more exotic. This process does no harm, and Daisy the cow can live a happy life. We then isolate the skin cells and multiply them in a cell culture medium. This takes millions of cells and expands them into billions. And we then coax these cells to produce collagen, as they would naturally. This collagen is the stuff between cells. It's natural connective tissue. It's the extracellular matrix, but in leather, it's the main building block. And what we next do is we take the cells and their collagen and we spread them out to form sheets, and then we layer these thin sheets on top of one another, like phyllo pastry, to form thicker sheets, which we then let mature. And finally, we take this multilayered skin and through a shorter and much less chemical tanning process, we create leather.

And so I'm very excited to show you, for the first time, the first batch of our cultured leather, fresh from the lab. This is real, genuine leather, without the animal sacrifice. It can have all the characteristics of leather because it is made of the same cells, and better yet, there is no hair to remove, no scars or insect's bites, and no waste. This leather can be grown in the shape of a wallet, a handbag or a car seat. It is not limited to the irregular shape of a cow or an alligator. And because we make this material, we grow this leather from the ground up, we can control its properties in very interesting ways. This piece of leather is a mere seven tissue layers thick and as you can see, it is nearly transparent.

And this leather is 21 layers thick and quite opaque. You don't have that kind of fine control with conventional leather. And we can tune this leather for other desirable qualities, like softness, breathability, durability, elasticity and even things like pattern. We can mimic nature, but in some ways also improve upon it. This type of leather can do what today's leather does, but with imagination, probably much more. What could the future of animal products look like? It need not look like this, which is actually the state of the art today. Rather, it could be much more like this. Already, we have been manufacturing with cell cultures for thousands of years beginning with products like wine, beer and yogurt.

Student 1

Abychom mohli vypěstovat kůži, tak musíme použít v biopsii jednoduchou buňku z nějakého zvířete, ať už je to kráva či prase. Nijak to zvířeti neublíží a my tedy získáme zdrojovou buňku a potom můžeme buňky pěstovat. Získáme tedy miliony těchto buněk. Pojivovou tkání je kolagen a jedná se tedy o extracelulární hmotu neboli také stavební jednotku. My tedy vezmeme tyto vypěstované buňky, vytvoříme z nich pláty a ty navrstvíme na sebe, vypadá to asi jako listové těsto, vezmeme si tuto navrstvenou... Tyto navrstvené pláty a díky vyčinění je potom provedeme tímto procesem a pak je spojíme dohromady. Tak tedy můžeme získat kůži z laboratoře.

Zde vidíme kůži, která byla vypěstována v laboratoři, aniž by tím utrpělo nějaké zvíře. Podívejte se na vlastnosti této kůže, je vytvořená ze stejných buněk, jako je normální kůže a nevidíme zde žádné kousnutí hmyzu, nevidíme zde žádné jizvy po vytrhávání chlupů. Z ní můžeme potom vyrobit kabelky či potahy na sedačky aut a... Když vypěstujeme tuto kůži z jedinečné buňky tak můžeme dosáhnout daleko dalších úspěchů... Zde vidíme kůži, která je skoro průhledná.

A tato kůže je 21 plátů tlustá, tudíž konvenční kůže nad tím nemáme nad kvalitou takovou kontrolu, můžeme kontrolovat třeba vzdušnost, udržitelnost, elasticitu či také vzory, můžeme doslova imitovat přírodu. Tento druh kůže může dokázat to, co současná kůže, ta konvenční, ale i daleko více. Jak tedy může vypadat budoucnost zvířat. Určitě ne takhle jako je tomu v dnešní době, ale může to vypadat nějak takhle. Již jsme díky buněčné kultivaci byli schopni vyrábět pivo, víno či jogurty.

Student 2

Při vytváření kůže vezmeme buňky ze zvířete, může to být kráva nebo jehně nebo něco exotičtějšího. Tento proces není nijak škodlivý a zvíře může nadále vesele žít dál. A poté vypěstujeme a kultivujeme je, až z nich uděláme miliardy buněk, tyto potom využíváme k produkci kolagenu. Kolagen je látka mezi buňkami. Je to přirozená pojící tkáň. Tzv. extracelulární matrice, ale je to také stavební část, důležitá stavební část. Takže vezmeme buňky a kolagen a vytvoříme z nich…vytvoříme z nich takové plata, poté je dáváme na sebe jako těsto, až nám vznikne hlubší plata a poté z nich děláme, dáme jim finální tvar a pomocí vydělávacího procesu získáme kůži.

Takže s velikou radostí vám ukážu první ukázku naší čerstvě vyrobené kůže z laboratoře. Toto je opravdová pravá kůže aniž by přitom utrpělo zvíře a jakékoliv škody. Má vše, veškeré charakteristiky kůže, protože se skládá ze stejného…vytvořeno ze stejných buněk a nejsou z nich…nejsou na ni žádné jizvy, nejsou na nich žádné, nebyly tam žádný chlupy a co je ještě lepší, můžeme vypěstovat přímo kůži ve tvaru, třeba peněženky nebo potahu na auta. Není to limitováno tvarem krávy nebo krokodýla. Vzhledem k tomu, že tento materiál vytváříme úplně od začátku můžeme ho kontrolovat, můžeme ovlivňovat jeho vlastnosti velice zajímavým způsobem. Tento kus který mám je pouhých 7 vrstev položených na sebe jak vidíte, je to skoro průhledné.

A tato kůže se skládá z jednadvaceti vrstev a už je poměrně neprůhledná. Tady takovýto způsob kontroly nemáte v případě běžné kůže. Můžeme také podpořit jiné kvality, rysy této kůže, jako je měkkost, elasticita, výdrž atd. Můžeme pozměnit přírodu, ale můžeme to také zlepšit. Toto již můžeme udělat teď, ale představte si, co bychom mohli udělat, když bychom zapojili naši představivost. Nemusí naše budoucnost vypadat takhle. Takto vypadá dnešní doba, ale mohlo by to v budoucnosti vypadat takto. My už vyrábíme a fabrikujeme věci již po tisíce milionů let jako je víno, pivo atd.

Student 3

Abychom mohli vypěstovat kůži, nejprve potřebujeme provést biopsii zvířete, může to být například kráva nebo něco exotičtějšího, a nic to tomu zvířeti neudělá, ono může dále žít jen tyto buňky izolujeme a necháme je množit se a ony se tak budou množit na miliony a miliardy a my tyto buňky můžeme vzít a ony obsahují kolagen, to je přírodní pojivo a je to extracelulární matrix a to je ten základní stavební kámen. A my ty buňky vezmeme, vezmeme ten kolagen a my je rozprostřeme a pak na sebe dáme několik těchto vrstev jako těsto a pak je necháme zrát a nakonec tuto mnohovrstevnatou kůži vezmeme a s pomocí chemického procesu z ní uděláme kůži.

Takže jsem opravdu rád, že vám můžu napoprvé ukázat první kus naší vytvořené kůže. Tohle je skutečná, pravá kůže, ale žádné zvíře kvůli ní nepadlo. Může mít všechny vlastnosti, které má kůže běžně, protože je stvořená ze stejných buněk a je to ještě lepší, protože nejsou tady žádné jizvy nebo kousance, nemáme žádný odpad, můžeme ji nechat vyrůst ve tvaru sedačky do auta nebo peněženky, kabelky, nemusí mít tvar té krávy nebo toho aligátora. A tím, že můžeme kůži pěstovat, tak můžeme ovlivnit její vlastnosti velmi zajímavým způsobem. Tenhle kus kůže má 7 různých vrstev a vidíte, že je téměř průhledná, tato kůže má 21 vrstev a už přes ni nevidíte.

Ale s běžnou kůží toto vůbec neovlivníte. My tu kůži můžeme navrhnout a upravit aby byla například jemná nebo prodyšná, elastická, hodně vydržela a můžeme ovlivnit i její texturu, můžeme se snažit vzít si příklad z přírody, ale máme různé nápady a můžeme si vymyslet jak ty produkty mají vypadat. Nemusí vypadat vůbec takhle, ale tohle je to nejlepší co dnes dokážeme vytvořit, ale mohli by vypadat třeba takhle. S buněčnými kulturami už pracujeme dlouho, vezměte si víno nebo výrobu jogurtů.

Student 4

Abychom vypěstovali kůži, odejmeme teda buňky ze zvířete. Může to být kráva, ovce nebo něco i exotičtějšího. Toto vůbec neovlivní vůbec to zvíře. Jenom prostě izolujeme tuto tkáň a pak ji dáme do Petry misky, a to pak roste, rozdělí se až na milióny. A pak tady máme tu kulturu, která vytvoří vlastně tu tkáň, co vytvoří teda extracelulární matrix. Ono to je vlastně ten prvotní stavební kámen. Takže vezmeme tuto tkáň. Z ní pak vytvoříme vrstvu a pak tyto vrstvy budeme na sebe vrstvit, něco jako u listového těsta, abychom vytvořili silnější vrstvu. To pak spojíme, takže tady máme několik vrstvu, a to pak dáme do jednoho stroje, který to zmenší a také to obarví.

Jsem teda nadšen, abych vám mohl ukázat naší první várku biofabrikované kůže. Toto je pravá kůže, aniž bychom museli obětovat zvíře. Může to mít veškeré charakteristiky kůže, protože je to vyrobeno ze stejné tkáně a ze stejné buňky. A co je ještě lepší, nevznikl tady žádný odpad, můžeme to si přesně stanovit, aby to bylo na peněženku nebo na sedadlo v autě. A navíc, na této kůži nenajdeme žádné jizvy nebo znečištění. A dokonce dokážeme i ovlivnit kvalitu kůže velice zajímavým způsobem. Tento kousek kůže je...se skládá jenom ze 7 vrstev a je skoro průhledná.

A tady ta kůže je…se skládá z 21 vrstev a je docela neprůhledná. Tuto kontrolu nemůžete mít u běžné kůže, toto, tu kůži můžeme ovlivnit podle jak chceme třeba aby to bylo měkké, jak to má být prodyšné, jak to má být elastické, jak moc to má vydržet. A taky můžeme ovlivnit i motiv. Můžeme to hodně mimikovat přírodu ale také ji vylepšit. Ta naše kůže dělá to samé, co současná kůže, ale s naší představivostí dokáže udělat i více.

Jak může vypadat budoucnost živočišných produktů, živočišné kůže. Nemělo by to vypadat takhle, tak jak to vypadá v současné době. Spíše by to mohlo být něco takového. Již pracujeme s kulturou buněk například u vína, piva nebo jogurtů.

Student 5

Jak to uděláme, abychom mohli v podstatě vypěstovat kůži, tak vezmeme buňky z původních zvířat jako jsou například krávy a tento proces jim nijak neubližuje a krávy můžou žít dlouhou dobu. Potom je multiplikujeme na...skrz médium, a které je expanduje a vyrobí jich miliardu a potom ten kolagen, ta pojivová tkáň potom se sama vytváří a vytváří tu tkáň a je to základní blok toho z čeho je kůže a vezmeme ty kolagenové buňky a dáme je na pláty a pak ty pláty dáme na sebe, něco jako listové těsto a uděláme z nich tlustší pláty které potom dospěje. A je to několikavrstvá kůže a potom skrz vyčinění z toho uděláme kůži.

A teď vám ukážu první, naše první výrobky z naší laboratoře. Toto, toto je opravdová kůže bez toho, aniž bychom obětovali zvíře, má to charakteristiku kůže, protože to je ze stejných buněk a ještě lepší, není tam žádné probodnutí od hmyzu nebo nějaké poškození. A je to něco, co se může používat na kabelky, a protože jsme to vypěstovali v podstatě od začátku, tak tomu můžeme dávat různé vlastnosti. Tento kousek je pouze 7 vrstev hrubý a je téměř transparentní.

Na druhou stranu, tato kůže je 21 vrstev a je v podstatě neprůhledná. Takovouto kontrolu nemáte nad obvyklou kůží a můžeme jí upravit na...tuto kůži můžeme upravit na jiné...mít jiné vlastnosti a bude více elastická, výdržná nebo může mít nějaká vzorek. Můžeme napodobovat přírodu, ale můžeme ji taky v něčem zlepšit. Tento typ kůže dělá to samé, co normální typ kůže, ale s představivostí může dělat mnohem víc. Jak může vypadat budoucnost výrobků ze zvířat? Nemusí vypadat takhle, což je v podstatě to nejlepší, co děláme dneska, ale mohlo by to vypadat takto, protože my už buňky produkujeme tisíce let u věcí jako je jogurt, víno nebo pivo.

Student 6

Abychom vytvořili kůži, tak si musíme vzít pomocí jednoduché biopsie zdrojové buňky nějakého zvířete, například z krávy nebo ovce, či z čehokoli jiného více exotického. Té krávě nebo tomu zvířeti to nijak neublíží a my potom s těmito buňkami dále můžeme pracovat. Oni, když je dáme do kultivačního média, tak sami vytvoří pojivovou tkáň kolagen a potom je vezmeme i s tím kolagenem a dáme je tak, aby vytvořili pláty. Ty pak na sebe poskládáme jako když pracujete s listovým těstem, a tím vytvoříme tlustší pláty a ty potom dáme dohromady a provedeme proces činění, díky čemuž vytvoříme kůži.

Jsem tedy velmi nadšený z toho, že vám můžu poprvé ukázat to, co se nám podařilo vytvořit. Rovnou od nás z laboratoře, nová kůže, kožený výrobek bez toho, aniž by muselo zemřít zvíře. Tato kůže má všechny charakteristiky, všechny... Je úplně stejná jako normální kůže nebo kožené výrobky ze zvířat, a to proto, že pochází také ze zvířete, ale můžeme ji vytvořit tak, že už rovnou bude mít tvar například peněženky nebo nějaké tašky či přímo sedadla a je to mnohem jednodušší. Můžeme také kontrolovat vlastnosti této kůže. Například tento kousek je vytvořen jenom ze 7 plátů, ze 7 vrstev a můžeme tedy vidět, že je průhledný skoro.

A tady tento druhý má 21 těch vrstev, a naopak je neprůhledný, a to takhle nemůžete pracovat s normální kůží, na kterou jsme zvyklí. Můžeme se také zaměřit na jemnost, nebo elasticitu nebo výdrž či prodyšnost kůže. Můžeme se také poučit a můžeme vytvářet různé vzory a můžeme zajistit, aby ta kůže byla pro nás lepší. A když se nad tím zamyslíme, jak by tedy mohla vypadat budoucnost našich zvířat. Nemusí vypadat tak, jak je dnes, jak můžete vidět. Může vypadat spíše takto, jako je na tomto dalším obrázku. Můžeme s ní pracovat stejně jako když vytváříme nebo vyrábíme pivo nebo víno nebo jogurt.

Student 7

Živočich může být buďto kráva nebo další podobné...nebo různorodá zvířata...a to se může rozvíjet do miliónů. Od nich získáme zdrojové buňky, pak je budeme pěstovat a získáme z toho vrstvy. Kůže je...vezmeme si také kolagen a uděláme z toho vrstvu a ty vrstvy navrstvíme na sebe. A uděláme z toho design. A nakonec, nakonec tím pak...nakonec to pak projde sluněním.

A pak z toho máme daleko lepší kůži. To se děje v laboratořích a je to jedinečná a pravá kůže bez zabíjení zvířat. Je to kůže, protože je vyrobená ze stejných buněk. A dále neobsahuje vůbec žádné, žádná kousnutí nebo bodnutí od zvířat a nejsou poškozená. Jak tyto...jak kůži pěstujeme od začátku. Je pouze 7 milimetrů tlustá a jak vidíte je to transparentní.

A tato kůže je vytvořen z 21 vrstev. Tato kůže má také další výhody. Je velmi dobrý k údržbě a dobře se roztahuje a je také pevný. Tento typ kůže může dělat to co dnešní kůže dokáže, ale může, dokáže toho daleko víc. Jaká je budoucnost živočišných produktů? Nemusí to být takovéto jak je to teď, ale může to vypadat takto, kdy budeme pěstovat tkáně po tisíc let.

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ANOTACE

Předkládaná diplomová práce se zabývá tlumočnickými strategiemi, které užívají začínající tlumočníci jako reakci na rychlost mluvního tempa řečníka. Cílem práce je zjistit, jaké strategie používají studenti tlumočení v reakci na rychlost mluvního tempa řečníka.

V teoretické části práce je představeno simultánní tlumočení a jeho typologie. Dále je nastíněna problematika tlumočnických strategií, teoretický a pedagogický význam tlumočnických strategií a jsou popsány tlumočnické strategie jako aspekt odbornosti tlumočníků. Dále se tato část věnuje problematice mluvního tempa a jsou zde klasifikovány tlumočnické strategie použité při analýze korpusu.

Praktická část práce se věnuje metodologii výzkumu, věnuje se výpočtu mluvního tempa jak řečníka, tak tlumočníků. Dále popisuje subjekty výzkumu, využité vybavení, řečníka a jeho projev a segmentaci textů. Poslední kapitola této části uvádí výsledky analýzy dvoujazyčného korpusu.

ANNOTATION

This diploma focuses on interpreting strategies used by novice interpreters as a response to the speaker's speech tempo. The aim of this thesis is to detect which interpreting strategies are used by novice interpreters and whether the speech tempo is an important criterion for using interpreting strategies.

The theoretical part of this thesis introduces simultaneous interpreting and its typology. It presents the issue of interpreting strategies and outlines the theoretical and pedagogical value of interpreting strategies and defines interpreting strategies as an aspect of interpreting expertise. It defines the speech tempo and classifies interpreting strategies used in the analysis.

The practical part introduces the methodology of the research and defines the calculation of the speech tempo. In this section are classified the subjects of the research, equipment, the speaker and segmentation. The last chapter is devoted to the results of the corpus analysis.