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Kazakhstani Simultaneous Interpreters' Perceptions Concerning Interpretation Techniques and Tools

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ABSTRACT

This study examines the key issues of simultaneous interpretation from the practitioners' viewpoint. It is framed within the context of interpreters' competences and the main tools and strategies like probability forecasting, segmentation, simultaneous interpreters deal with under Kazakhstani multilingual conditions. To analyze those issues, the authors used such data collection tools as semi-structured interviews with the practitioners as well as interpreters' introspection which unveil some techniques used by interpreters consciously and unconsciously. The validity and reliability of the research were verified by ANOVA. Consequently, the main research objective is to show the interpreters' opinion concerning the main issues of simultaneous interpretation process, so it will be valuable for both in-service and pre-service interpreters as they conduct the introspective analysis of the working process and results; also, it reveals some problems interpreters face to while doing their work. Such phenomena as probability forecasting, compression technique, segmentation of the source texts and others related to simultaneous interpretation are observed by practitioners who demonstrate both their attitude and necessity of their academic upgrading. Also, one of the main findings of our study is related to the interpreters' reflection concerning such tool of their work as auditory speech recognition.

Keywords: Simultaneous Interpretation; Text Segmentation; Sentence Model in Interpretation; Probability Forecasting; Compression; Auditory Recognition

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1. Introduction

Simultaneous interpretation has become one of the key points of contemporary research studies in translation. While analyzing such a sophisticated phenomenon as simultaneous interpretation, scholars focus on its various aspects. Thus, discussing the importance of simultaneous interpretation, Alisoj^[1] highlights that globalization processes presuppose the need for fast and high-quality interpretations in order to run contemporary businesses, different processes in various social and commercial institutions, and the like. Also, it is shown in this research that to accomplish various simultaneous tasks interpreters are faced with, additional tools are needed.

So, simultaneous translation presupposes a high level of specific interpreter's competences. Unlike written translation, additional difficulties for the interpreters consist in the need for instant decision-making under conditions of the time limit, intense work of memory and attention, the need to apply forecasting and carry out speech compression^[2]; it requires "converting speech from one language to another in real-time" (^[3], p. 210) as well as highly developed competencies and skills in note-taking^[4]. Also, as it is stated in the research papers dedicated to the problem of simultaneous interpreters' training, there are many challenges presupposed by peculiar features of simultaneous translation. Thus, Pishkova and Samarina^[5] found out the strong connection between three stages of interpreting: (listening – comprehension – speaking), on one hand, and the main challenges of pre-service interpreters' training. Thus, for listening as the first step of simultaneous interpretation, the main challenges are related to the inappropriate speaker's pronunciation (i.e., regional accents, or pidginized language) as well as technical problems with the equipment. On the other hand, comprehension problems are based on the lack of interpreters' knowledge about the subject, or discussion topic itself. It should be pointed out that even a well-skilled interpreter needs a preparation for the specific topics beforehand. The third group of challenges, speaking problems specifically, are correlated with some psychological factors like stress, emotional burnout, etc. At the same time, some researches focused on simultaneous interpretation issues, analyze so-called "triggers", i.e., some certain hindrances in the process of translation^[6]; Shebarshina^[7] deals with the intra-lingual asymmetry seen as one of the key issues

of simultaneous translation as a whole. Furthermore, there are a lot of studies dedicated to the particular interpretation strategies such as segmentation, passivization, generalization, and summarization^[8, 9]. It is pointed out by Bernardini et al.^[10] whose research is tailored to simplification in both interpretation and translation that interpretations are simpler than their translated counterparts due to lower lexical density in interpretation, as well as lower mean sentence length, frequently used similar or even the same words, etc.

Similarly, some studies dedicated to both theoretical and practical aspects of simultaneous interpretation focus on perspectives of its' technicality development^[11]. Among the topical problems related to simultaneous interpretation, many scholars mention such factors as stress. Thus, some of them highlight that with an increase in stress loads on the simultaneous interpreter, the state of his linguistic consciousness changes during the translation process. There is a viewpoint about disruption of the cognitive mechanisms functioning in simultaneous translation^[12]. Subjective factors like psycho-emotional mood of translator, willingness to work, personal attitude to the emerging stressful factors while translating^[13] and objective ones (peculiar features of pronunciation, individual speaker's tempo, the utterance structure, abbreviations, use of terminology, audio-visual aid etc.) have been mentioned. Comparing to the aforementioned studies, Sofyan and Tarigan^[14] focused on meaning-making aspects of interpretation, equivalence, use of understandable lexical and syntactical elements; all those factors, in their opinion, determine 25% of translation quality.

Additionally, some studies are pertinent to certain processes and techniques in simultaneous interpretation i.e., probability, or probabilistic forecasting, and the language characteristics which help to implement it. Thus, Shlesinger (^[15], p. 38) claims that the redundancy of language (especially in lexical and semantic fields) can help probabilistic forecasting which is "probably inherent in all types of speech activity". In contrast to the aforementioned study, Murtiningsih and Ardlillah^[16] state that familiarizing interpreters with accents they might encounter is of paramount importance as it will help in vocable speech comprehension.

To conclude, there are three typical approaches represented in contemporary research works in translation studies: firstly, a considerable body of work is dedicated to the general aspects of interpretation including interpretation strategies,

key challenges etc. Secondly, such aspects of simultaneous interpretation as its' quality and principles of its evaluation also draw the scholars' attention; and, thirdly, many of research studies are dedicated to psychological issues of interpretation and ideas related to interpreters' training. Comparing to the aforementioned studies, we focused on such problems of simultaneous interpretation as various aspects of vocable speech perception as well as some preparatory steps presupposing the success of simultaneous interpreters' work; those research goals presuppose the importance of the current study.

2. Materials and Methods

2.1. Research Problem

The preliminary analysis of the research field revealed that most of the studies dedicated to simultaneous interpreters' professional activities take into account the results of their work i.e., translated version of the oral speech. Also, researchers focus on the techniques which are implemented by simultaneous interpreters, or psycholinguistic mechanisms of their work. Besides, the interpreters' perception towards such phenomena as probability forecasting, compression technique and others related to simultaneous interpretation has been comparatively less explored. Consequently, there is a research gap, and the given study shows an attempt to fill it up.

2.2. Objectives of the Study

The primary objective of the given study is to explore the key issues of simultaneous interpreters' perception towards general and particular aspects of their professional activity in order to understand some rules of interpreters' work. Firstly, it will be valuable for the in-service interpreters as they reflect the working process and results of such specific exertions. Secondly, our study is aimed at clarification of main issues of pre-service interpreters training as it reveals some problems interpreters face while doing their work.

2.3. Research Methods

The given research adopts a mixed method to investigate the main issues related to simultaneous translators' professional properties and reflections towards their work. As Creswell^[17] and Lavidas et al.^[18] indicate, qualitative re-

search is intended to understand a particular social situation, event, role, group, or interaction. Our study aims to represent the results of in-depth interviews with 5 simultaneous interpreters who have a rich experience in this field of translation and who are able to represent their meta-translational reflections concerning such challenging aspects of simultaneous translation as the preparation process for simultaneous interpretation, their perception towards various mechanisms of speech production, probable forecasting, etc. Those interviews were conducted in-person, and the open ended questions provided the opportunity to delve into totally unforeseen issues^[19].

The data for this research was collected through semi-structured interviews including 10 questions, and introspection which shows interpreters' work in real-time mode. As simultaneous interpretation is not so widespread as other branches of translation e.g., written translation, there are no many specialists whose work (or most of it) lies in such a specific field. Moreover, many peculiar requirements towards simultaneous interpretation are not represented in other spheres of translators' work. So, primary data sources for this study include the recordings of 5 interviews with the interpreters and their transcribed versions. The research employs qualitative methods which do not involve any statistics or mathematical calculations; otherwise, it is closely associated with words, feelings, opinions emotions and "other elements that are non-quantifiable" (^[20], p. 11).

The interview questions were elaborated and adopted on the basis of such research works in the field of simultaneous interpretation as^[21-25] etc.

As it was stated before, our research population includes 5 individuals (professional simultaneous interpreters aged from 33 to 61) who were involved in an in-depth interview and introspective study. Those interpreters were selected as the participants taking into account the predetermined criteria: having professional experience in simultaneous interpretation for at least ten years; having a background education in translation or foreign language teaching. So, all of our research participants have more than 10 years of professional experience in simultaneous interpretation; also, most of them are able to deal with 2 language pairs which function actively in contemporary Kazakhstan, i.e., English-Kazakh and English-Russian. **Table 1** represents the demographic information as well as educational and professional backgrounds about our research participants.

Table 1. Demographic and professional information about research population.

Interpreter's Number	Gender	Age	Experience, Years	Major	Language Pair(s)
Interpreter 1	female	61	21	English Philology	English- Russian
Interpreter 2	male	35	10	Translation	English-Kazakh, English- Russian
Interpreter 3	male	38	15	Translation	English-Kazakh, English- Russian
Interpreter 4	male	33	11	Translation	English-Russian
Interpreter 5	male	44	12	English Philology	English-Kazakh, English- Russian

As a verification tool, we applied a One-Way Repeated ANOVA [26] Calculator as there are 5 interviews including 10 questions.

Research limitations consist in the number of participants (there were 5 interpreters only involved in our research); otherwise, simultaneous interpretation should not be considered as a kind of activity everyone can do, it is not a mass one.

So, despite having 5 highly qualified interpreters involved in our research i.e., a small group of respondents, we are able to state that our research population represents various demographic groups as well as professional level and experience. This fact presupposes the representativeness of research because it shows a variety of viewpoints presupposed by both demographic and professional factors.

3. Results and Discussion

The interview with simultaneous interpreters, as it has been mentioned above consisted of 10 questions which highlighted various aspects of a multifaceted translation process, and they have been ranged from general to more specific ones. Thus, the 1st Interview Question - *How do you perceive the psychological process of translation?* – is rather generalized as it plays the introductory role. Therefore, the interpreters' answers represented their perceptions towards the act of simultaneous interpretation itself. Thus, Interpreter 1 highlighted that the translator satisfies the need for communication between the two parties and acts as a kind of bridge between one side and the other. Therefore, it must be communication between two parties, people who speak different languages. At the same time, the translation situation is analyzed and, accordingly, the message is sent to the target languages, the translation is adjusted and active work is done. This is first, perception, memory, attention, switching from one language to another. Thus, intuition and even forecasting work to some extent during simultaneous interpretation, and most importantly, it is the stress resistance, psychological

factor and good reaction of the interpreter. According to the Interpreter 2 viewpoint, a translator first and foremost should be able to manage stress, so he should improve his stress management skills. For the Interpreter 3, psychological aspects of simultaneous interpretation should be considered as one of the most important parts of the process. In his opinion, when the brain is relaxed, it translates better. If you know how to relax and not worry, the translation will be better. The psychological process, psychology comes with time, the more experience you have, the easier it is for you to translate in the future, because experience cannot be replaced by anything. Well, maybe there are methods for calming down before translation, then if you use them, if there are such methods, well, there should be, then yes, you need to practice them too. A relaxed brain translates better. On the other hand, the Interpreter 4 focuses on such issue as the distribution of the brain's functions as it listens to speech and produces the speech at the same time. That is, the interpreters have such scattered attention when they listen and immediately translate, that is, they have two channels in their brains at once, where one works for reception, the other for outgoing. The Interpreter 5 shows similar viewpoint; otherwise, he highlights such problems as concentration, and stresses that while translating he acted mostly intuitively, without any reflection.

The 2nd Interview Question, *How do you prepare yourself for the translation?* is more specific as it deals with the preparation strategies only. Here, we can see certain steps and approaches. Thus, Interpreter 1 focuses on the main rules and traditions of simultaneous interpretation; in her opinion, first of all, according to the rules, the translator must preferably provide all the materials at least a week, 3 days before the simultaneous interpretation, especially if it is a conference, so that the translator can review everything, of course. For example, she personally prefers to receive all the materials in the original, whether English, Russian or any other language, so before, depending on what topic all of this is naturally viewed, a glossary is compiled and

accordingly you look for some new terminology if a translator is not familiar with those terms. Interpreter 2 also shows the importance of preparatory steps, focusing on request materials in advance and making a glossary; also, he stresses the health and physiological needs (it is necessary to go to bed earlier). Interpreter 3, correspondingly, says that the main point is the keywords that will be used most often in the event. Therefore, the interpreter needs to receive materials on key points in advance. Write down the key terms that will be used most often. Also, it is highlighted that the interpreter should not go into too much detail, because it will take time and, probably, he will forget the basic terms. In lockstep with the colleagues, Interpreter 4 points up the search of necessary materials and information related to the topic. In his opinion, when preparing for translation, it is important to know the topic name, the form of the conference, and then an interpreter looks for relevant words, topics, practice unfamiliar words, looks at definitions, reads descriptions of words, articles on Wikipedia anywhere. He shared his personal experience and says, that firstly he reads the material in his native language (so, he prepares himself for the topic in Russian; even if the conference is in a foreign language). As for the Interpreter 5, he also points out that 2–3 days in advance of the event he asks that the report materials be sent to him; then he starts the preparation process.

The 3rd Interview Question (*How do you perceive the first segment of the source text?*) is aimed at clarification of such a specific detail as the 1st segment perception. In research papers like Gile^[21], Alisoy^[1], and other, the importance of first segment perception consists in its' role of tune, or customization of the forthcoming interpretation. Thus, Interpreter 1 describes her perceptions like that: *Your brain immediately turns on and you start translating right away, that is, especially if it's something familiar right away, then everything goes smoothly, and if not, then you start searching, delving into your brain in order to correctly express and get this information to digest and put it out accordingly this information.* For Interpreter 2, it is inevitable to let the speaker go 3–5 words away from the interpreter in order to catch the meaning of the statement. At the same time, Interpreter 3 points out that it is hardest at the beginning of any translation; here, interpreters also need to be able to abstract and convey the main thoughts, they do not need to try to convey every word, translate it and give it away. In his opinion, this is

perceived as a main thought. On the other hand, Interpreter 4 focuses on the technical details of the interpreting process (*The first segment of the source text - you wait for 2–4 source words, then translate*); whereas Interpreter 5 confirms that the very essence of the entire text is determined from the first segment of the source text and therefore a whole mood comes from how to prepare, what exactly needs to be translated. So, here experienced interpreters speak with a single voice.

Comparing to the first 3 questions, where the interpreters demonstrated similar viewpoints, the 4th Question (*Does preliminary preparation of a translation help with the initial reproduction of a segment of an utterance?*) shows various viewpoints represented in the interviews. For instance, Interpreter 1 supposes that interpreter's personality has an effect on it, and personally for her it is not effective, because it is distracting. Moreover, it happens very often that let's say the speaker is a speaker, despite the fact that there seems to be a text, and an interpreter prepares a translation then it turns out that the speaker extends some changes in his speech. In the contrary, Interpreter 2 gives positive opinion towards preliminary preparation, especially when it is used for a precise information (official brand names, name of the speaker's organization, etc.) whereas Interpreter 3 stipulates that if a translator has the text in advance, it will help. If there is no written text for oral translation, then it can only be obtained through experience, or preliminary preparation of the material will help. Similar viewpoint has been expressed by Interpreter 4 and Interpreter 5: *If you prepare already known phrases, expressions and if they occur, that is, if you have already prepared something, for example: the name of the conference or something else, this helps a lot.* Interpreter 's 5 viewpoint towards role of preliminary preparation for the initial reproduction of the utterance segments: *If I have the opportunity to prepare in advance, then I perceive it much easier in the first minutes of translation, I perceive it much easier, and it is much easier for me to get involved in the work.* To summarize, opposite viewpoints are presupposed by different approaches to this aspect of simultaneous interpretation as well as by personal properties of the interpreter.

Subsequently, the 5th Interview Question (*What mechanisms ensure the simultaneity of speech perception and its reproduction?*) is designed to clarify the interpreters' perception concerning 2 aspects of their professional activity,

i.e., simultaneous speech processing and speech production. Analyzing and reflecting on the process, Interpreter 1 stated that it turns out that visual and auditory memory are the main sensory characteristics, and accordingly, first of all, it is necessary to perceive this information within 1–2 seconds; this is also important. For Interpreter 2, parallel processing of the sound speech in the source language and speech production in target language should be based on the mechanism of probable forecasting which structures the interpreter's brain work. Alternatively, Interpreter 3 emphasizes such factors as experience, practice; in his opinion, the interpreters need to constantly practice, this is the main skill of a translator. Be able to say something while listening to it. Also, he says that he personally practiced and prepared this way: *I synchronized for 5-6 hours, this is the only way I could achieve this*; Interpreter 5 also focuses on the rich experience as a factor which helps in managing that problem. Otherwise, the comment of Interpreter 4 seems to be a little bit paradoxical, because he reached the goal by absent-minded attention, absent-minded perception.

Consequently, here we deal with the individual ways to manage the most important problem of simultaneous interpretation.

The 6th Interview Question is also about the interpreters' perception and problem managing in the frame of interpretation: *How do you feel while searching for a solution?*

As it is stated by Interpreter 1, translators are already feverishly starting to look for a solution, for example, how to quickly respond to this or that situation, and it happens when they are trying to find terminology and fly out of memory whereas for the Interpreters 2 and Interpreter 3 it generates stress. At the same time, Interpreter 4 focuses on the brain activity; thus, he says that *It feels like the brain is moving into an active phase, remembering, forming something in the head*. Unlike the Interpreters 2 and 3, Interpreter 5 stipulates that after so many years of simultaneous interpretation, there is no any stress for him, he is just looking for ways to solve how to replace or find an alternative to this or that statement or expression. Also, he points out the importance of preparation in advance. Summing up, we can state that for the practitioners it is not so important to reflect on the procedure itself as to react quickly and to show professionalism in making the appropriate decision.

The specificity of the Interview Question 7 consists in analysis of probable forecasting (*How does the mechanism of probable forecasting manifest you?*) In our opinion, probable forecasting is presupposed by the heuristic nature of simultaneous translation; moreover, it is based on such a component of human mental activity as anticipation. Probably forecasting shows how the reflection of reality is carried out, and its' results i.e., what human brain records, how it verbally forms the environment registers some responses and results of direct perception. Also, it shows the dynamics of those processes, development trends, probable connections between them and relationships in the forthcoming future^[27]. All the participants give positive reaction towards probable forecasting in their practice: Interpreter 1 says, that she does not even know how it manifests itself; anyway, she focuses on the intuitive nature of the procedure: *sometimes it happens that when a person starts speaking and you don't know the topic at all and you don't have any concept, especially when there are questions and answers and when you absolutely don't know what the speaker will say, then it's as if the first words, to some extent, you already assume and you predict what will be discussed*. On the other hand, Interpreter 2 points out that if he has been provided with the sufficient information about the topic of the report, it is much easier to translate; that is why probable forecasting is crucial for interpreting. In contrary, Interpreter 3 focuses rather on the experience and preparation for probable forecasting: *If you are well prepared, then you already know in which direction the translation will go*. For Interpreter 4, probable forecasting should be based on some preliminary templates and experience that interpreters have. In his opinion, *knowing the first three words you know the whole sentence. That is, it comes through experience*. Probability forecasting, in Interpreter's 5 opinion, almost every time, those reports, those materials that come to the interpreters before translation, usually do not cover everything, from this material one can only predict what will happen in the rest, so there is a very high probability of forecasting, a very high probability that this or that will happen case in translation. So, probability forecasting is considered to be one of crucial interpreters' competences and even the specific type of their brain activity, and the 8th Interview Question is also related to combined prognostic and productive functions of interpreters' brains: *Is it possible to immediately formulate a sentence model from the first*

two words? Our research participants' reactions are mostly positive, but all of them focus on the complicity of sentence model formulation (thus, Interpreter 1 highlights that despite her rich experience, immediate formulation of a sentence model using two first words, leads to difficulties). However, Interpreter 2 stipulates that if the speaker begins his speech with the words dear....., then you can use the probable forecasting method to compose sentences without waiting for the speaker. Most likely he will say, dear participants, let me... This position is also supported by Interpreter 3 who considers great experience and language type (as well as the degree of source and target languages similarity) as the most important factors for the sentence model formulation: *Depends on the language. Which language are you translating into? In some it is almost impossible. For example, if you are translating from English into Kazakh, then the verb comes at the very end. For example, from English to Russian you can, because the order of location of the verb is the same, but in Kazakh and Japanese the verb is at the very end. Therefore, you can hear the verb in English, but you must store it in your head and give it out at the very end when translating into Kazakh. Or for example, if you are translating from Kazakh into English, you need to listen to the end of the sentence before you start translating it into English, that is, it depends on the languages here.* Interpreter 4 demonstrates similar viewpoint saying that if the speaker is fairly standard, then it is possible, if he bows out, it may not match. Therefore, it happens differently. The only negative opinion has been expressed by Interpreter 5 who focuses on typical syntactic structures in source and target languages: *If the translation is from English to Kazakh or from Russian to Kazakh, these are two different syntactic structures. Therefore, from the first two words there is no way, it is advisable to listen to the first one or two sentences in order to translate better; in synchrony, this leads to the fact that pauses occur precisely at the beginning. But these pauses can be compensated for; there are other solutions.* Therefore, most of our research participants express positive viewpoint towards prognostic sentence model formulation.

On the other side, Interview Question 9 draws the interviewees' attention to the interpreters' function which is rather analytical than prognostic: *How an utterance compression is done?* Four out of five interpreters have their own ideas about compression; thus, Interpreter 1 says that in case of

simultaneous translation, interpreters are very limited in time and also by other factors, then accordingly when translating the term is abbreviated. Some single term is used, instead of saying that this is a convicted person, you say that he is a convicted person, or for example you try to shorten all this as briefly as possible. In her opinion, business slang can also express a whole sentence in two or three words. By contrast, Interpreter 2 focuses on reducing the redundant information and repetitions in the speaker's speech. Also, relying on the extra-linguistic knowledge of the audience is a predominant factor for the utterances compression. Besides, Interpreter 3 specifies the necessity to grasp key words and key ideas; in his opinion, it is accomplished through one of interpreters' abilities. In his opinion, this is achieved due to the fact an interpreter has a good command of the topic, then he already understands at the level of sensations what is being discussed and can already convey it in other words. Here it means the ability to understand the topic, the second is the ability to abstract from the subsequent thought, that is, remember the second thought, but be able to convey the first thought. That is, such a skill is needed here, block thinking. The Interpreter 3 points out that here must also be a good speech and a rich vocabulary in order to quickly convey this. It may be that interpreter has a thought in his head, but it may be difficult for him to find the words, then he is wasting time, the second or third thought is already coming, so here is such a moment. Generally speaking, interpreters need to understand the simple logic in their heads, understand it and quickly convey it to the viewer, and it is important that this statement should be as short and as clear as possible; if the interpreter says it too quickly, the listener may not understand it. On the other hand, if he says it too sophisticated, then the listener too - he will not catch it, therefore, the listener can say that the translation quality is poor, only because he did not understand, not because the interpreter really translates poorly, but because he has said it poorly. For him, this is a bad translation, and not that he himself did not understand this complex translation, due to his deep understanding. It happens that the interpreter translates well, but it is difficult to translate, for the listener it will not be a difficult translation, but a bad translation, and this makes a difference, so the simpler it will be translated, the better any interpreter will be in the eyes of the listener. Also, the Interpreter 3 compares the process of interpretation with the writers' creative work:

the same applies to writers, the simpler they can express complex things, the better writers they are, the greater the chances that their works will become bestsellers. In his turn, the Interpreter 4 focuses on contractions as the main reason for compression in interpretation: *Compression occurs due to contractions being compressed. That is, you compress it, but at the same time retain the meaning. For example: You change something for something else, if it's very quickly, for example, although this will already be considered informal, but nevertheless. You try to preserve the main thing, but at the same time exclude everything that is not important.* As for the Interpreter 5, he says that he has never reflected on both his own and other interpreters' cases of compression towards both pairs of languages. Summing up, the Interview Question 9 shows the practitioners' general understanding of the main rules of compression as well as some patterns of the brain work.

Finally, the last Interview Question (*Does the mechanism of auditory recognition of speech images always work?*) focuses on the mechanisms of oral speech perception and simultaneous analytical work of interpreter's brain. Here, there are 2 positive and 3 rather negative answers; it is supposed that auditory recognition of the speech images is a multifaceted phenomenon based on both interpreter's personal properties and his experience. Thus, for the Interpreter 1, it works, but not always, whereas Interpreter 2 says that in his own opinion it does not work in his practice. Besides, for Interpreter 3, it probably does not always work. If a person knows how to quickly translate some auditory information into an image, then this greatly simplifies the task. It (the mechanism of auditory recognition) does not always work; it works when there is sufficient experience, sufficient practice, when a person is aware of what he is talking about. A person may have a huge vocabulary, but if he does not understand what he is talking about, then it will be difficult for him to convey. There are translators who can translate specifically, but they have chosen the words they do not understand and sometimes refuse to translate such kind of speeches; but there are translators who do not resist, they have selected works, words, and remembered. It is incomprehensible to him, but he translated correctly and the perceiving person will understand him, due to the fact that the right words were chosen, but if such a person does not resist internally, that he himself did not understand that he conveyed a set of words,

then it may seem that he owns topic. He also provides a specific example: *The translator was sitting next to him (Interpreter 3 – L.M., Ye.A.), he was translating complex medical topics, but he knew how to grasp the words, convey them, and translate them into Russian. So, the Interpreter 3 thought he was an expert in this, although he later said that he did not understand what he was talking about. And this ability to abstract also helps.* Viewpoint expressed by the Interpreter 4, is rather negative: *They don't always work, meaning you can't always recognize all the images. But there are patterns that are similar and that will tell you, and you will understand what will be discussed. It all depends on the speaker. Everyone has a different way of speaking, so sometimes it works, sometimes it doesn't.* As for the Interpreter 5, he stresses the importance of auditory recognition of the speech images; in his opinion, for him it always works, *surprisingly always.*

At the end of the survey, the authors asked interpreters involved in the research to range the aforementioned tools and interpreters' skills according to their importance from 1 (the lowest point) to 3 (the highest one) to find out the internal consistency of the interview. As it was stated before, to verify the interview objectivity, One-Way Repeated ANOVA Calculator was used because there are 5 variables and 10 Interview Questions. Verification results are shown in the **Tables 2 and 3** below.

Table 2. Summary of the data analysis by one-way repeated ANOVA [26] calculator.

Treatments					
1	2	3	4	5	Total
10	10	10	10	10	50
23	21	20	17	20	101
2.3	2.1	2	1.7	2	2.02
57	47	42	31	42	219
0.6749	0.5676	0.4714	0.483	0.4714	0.5529

Table 3. Result details of the data analysis by one-way repeated ANOVA calculator.

Source	SS	df	MS	F-Ratio Value
Between-treatments	1.88	4	0.47	F = 1.98592
Within-treatments	13.1	45	0.2911	
Error	8.52	36	0.2367	

So, the *F*-ratio value is 1.98592 whereas the *p*-value is 0.117515 which shows the reliability of our questions. Summing up, the interview with interpreters shows a multi-

faceted phenomenon of interpretation process, a variety of tools used by interpreters, and intimate character of interpreters' position concerning application of the certain tools or techniques.

4. Discussion

Main findings of our study are related to both personal characteristics of interpreters and such specific skills as auditory recognition, compression, segmentation and probability forecasting which, in our opinion, should be systematically developed. Almost all research participants showed positive opinions about using a variety of strategies such as segmentation of the vocable speech, probability forecasting, etc. In our research, we justify the idea of the interpreters' personality and their perception towards professional activities impact on the final product. Comparing to the previous research studies, this finding aligns with study done by Simon^[28], which indicates that the interpreter should filter the information using segmentation and probability forecasting techniques.

Also, while discussing the main challenges the interpreters focused on proficiency and language-related skills, especially in simultaneous speech production and speech perception. Those challenges were also described by Gile^[29], p. 973) who defined them as "anything that increases the processing capacity requirements of an interpreter (more effort needs to be put into listening/understanding, short-term memory or production) or increases signal vulnerability".

Moreover, it was also found that interpreters are able to analyze the mechanisms of probability forecasting even parallelly to the process of interpretation itself. As it was asserted by Vshivkova^[30], the simplified principle of forecasting boils down to the fact that a hypothesis about its content is built on the basis of the linguistic means of the text. In the course of understanding the incoming language tools, it is either corrected, clarified and confirmed, or rejected and a new one is put forward. In other words, based on the linguistic means of the text, a certain scheme is selected, which is a reflection of past experience, which is superimposed on the text. Our research participants showed that there is a kind of recognition, or, probably, guessing of the unknown through the known, which helps the interpreters and makes it easier to comprehend the unknown.

Besides, one of the main findings of our study is related

to the interpreters' reflection towards auditory speech recognition, and this idea is supported by Payne and Silcox^[31], p. 215) who underline the necessity of continuous processing, updating, and mapping of various types of information received via different channels. It is also stressed there that "this cascade of complex and highly interdependent processes also occurs seemingly automatically, giving rise to what we experience as the meaning of that sentence or utterance". Our interviews indicate that the practitioners' attitude to that phenomenon is controversial; in our opinion, this fact shows the necessity to provide them with the theoretical background concerning auditory recognition.

The findings of the given study also correspond with some researches dedicated to the interpreters' work assessment, e.g., the studies by Wein et al.^[3], *Murtiningsih* and *Ardlillah*^[16] because interpreters' reflection on both process and result of their work makes it much more comprehensible.

Therefore, the comparison shows that combination of probability forecasting, self-reflection, speech segmentation and other trends in simultaneous interpreters' professional activity significantly boosts their skills as well as interpretation quality.

5. Conclusion

The need for more representative research in the field of interpretation from the interpreters' viewpoint is motivated by the lack of such studies as most of contemporary researches are focused on the interpreters' speech, its' adequacy and correspondence between the source and target orally produced texts. The given study shows an attempt to investigate the interpreters' perceptions towards the psychological atmosphere of the translation process, interpreters' preparation for the simultaneous interpretation process, segmentation of the source texts and its impact on speech production, various aspects of speech perception as well as such mechanisms of simultaneous interpretation as probability forecasting, compression and auditory recognition of speech images.

Main findings consist in revealing the factors in simultaneous interpreters' activities which show their common value of such strategies as probability forecasting; also, it is shown here that a systematic preparation for a variety of simultaneous interpretation conditions and topics will diminish

the stressful characters of interpreters' tasks.

Further perspectives lie in the field of fixation and analysis of various interpreters' activities and overcoming of subjectivity in those procedures. Also, the authors highlight the need for interpreters' theoretical background development and conscious use of the aforementioned techniques and mechanisms.

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References

- [1] Alisoy, H.A., 2022. Discussion of Simultaneous Interpretation, Its Challenges and Difficulties with its Implementation Znanstvena Misel Journal. 65, 40–43.
- [2] Khassanova, R.R., 2011. Semantic Summarization Transformations in Simultaneous Interpretation. Vestnik Volzhskogo Gosudarstvennogo Universiteta. Seria. 9, 39–44.
- [3] Wein, S., Te, I., Cherry, C., et al., 2024. Barriers to Effective Evaluation of Simultaneous Interpretation. Association for Computational Linguistics: St. Julian's, Malta. pp. 209–219.
- [4] Liu, Y., Luo, W., Wang, X., 2023. Exploring the Relationship Between Students' Note-Taking and Interpreting Quality: A Case Study in the Chinese Context. *Frontiers in Education*. 8, 1157509. DOI: <https://doi.org/10.3389/educ.2023.1157509>
- [5] Pishkova, E.J., Samarina, I.V., 2015. [Problems at Simultaneous Interpreting Education: Lingua-Didactic Aspect]. *Izvestiâ Ūžnogo Federal'nogo Universiteta: Filologičeskie Nauki*. 4, 212–218. DOI: <https://doi.org/10.18522/1995-0640-2015-4-212-218>
- [6] Korpál, P., Stachowiak-Szymczak, K., 2020. Combined Problem Triggers in Simultaneous Interpreting: Exploring the Effect of Delivery Rate on Processing and Rendering Numbers. *Perspectives. Studies in Translation Theory and Practice*. 28(1), 126–143.
- [7] Shebarshina, D.Y., 2020. Simultaneous Interpreting: Justified and Forced Transformations and their Impact on the Quality of Interpreting. *Vestnik Moskovskogo Universiteta*, 4. Seria 22. *Theory of Translation*. pp. 63–81.
- [8] He, H., Boyd-Graber, J., Daumé, H., III., 2016. Interpretese vs. Translationese: The Uniqueness of Human Strategies in Simultaneous Interpretation. In *Proceedings of the Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technology; San Diego, CA, USA, 12–17 June 2016*. pp. 971–976.
- [9] Al-Khanji, R., El-Shiyab, S., Hussein, R., 2000. On the Use of Compensatory Strategies in Simultaneous Interpretation. *Meta*. 45(3), 548–557.
- [10] Bernardini, S., Ferraresi, A., Milicevic, M., 2016. From Epic to Eptic — Exploring Simplification in Interpreting and Translation from an Intermodal Perspective. *Target*. 28, 61–86.
- [11] Aminzadeh, S., 2023. Difficulties of Simultaneous Interpreting from Translation Students' Perspective. *Cihan University-Erbil. Journal of Humanities and Social Sciences*. 7(1), 74–81. DOI: <https://doi.org/10.24086/cuejhss.v7n1y2023.pp74-81>
- [12] Balaganov, D., 2020. Dynamics of the Simultaneous Interpretation Situation. *Modern Pedagogical Education*. 5, 204–210.
- [13] Hervais-Adelman, A., Moser-Mercer, B., Golestani, N., 2014. The Neuroscience of Simultaneous Interpretation. *Other Words: The Journal for Literary Translators*. 44, 60–63.
- [14] Sofyan, R., Tarigan, B., 2018. Developing a Holistic Model of Translation Quality Assessment. In *Advances in Social Science, Education and Humanities Research*. Volume 254. *Proceedings of the Eleventh Conference on Applied Linguistics (CONAPLIN 2018); Bandung, Indonesia, 27–28 November 2018*; pp. 266–271.
- [15] Shlesinger, M., 2003. Effects of Presentation Rate on Working Memory in Simultaneous Interpreting. *The*

- Interpreters' Newsletter. 12, 37–51.
- [16] Murtiningsih, S.R., Ardillillah, Q.F., 2020. Investigating Students' Challenges and Strategies When Interpreting. In *Advances in Social Science, Education and Humanities Research*, Volume 518. Proceedings of the 4th International Conference on Sustainable Innovation 2020–Social, Humanity, and Education (ICoSIHES 2020); Bantul, Indonesia, 13–14 October 2020; pp. 224–232.
- [17] Creswell, J.W., 2009. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE Publications: Thousand Oaks, CA, USA. 438p.
- [18] Lavidas, K., Petropoulou, A., Papadakis, S., et al., 2022. Factors Affecting Response Rates of the Web Survey with Teachers. *Computers*. 11(9), 127.
- [19] Adams, W., 2015. Conducting Semi-Structured Interviews Handbook of Practical Programs Evaluation. In: Newcomer, K., Hatry, H.P., Wholey, J.S. (Eds.). *Handbook of Practical Program Evaluation* John Wiley & Sons, Inc.: Hoboken, NJ, USA. pp. 492–505.
- [20] Mohaiminul, I., 2020. Data Analysis: Types, Process, Methods, Techniques and Tools. *International Journal on Data Science and Technology*. 6(1), 10–15. DOI: <https://doi.org/10.11648/j.ijdst.20200601.12>
- [21] Gile, D., 1994. Methodological Aspects of Interpretation and Translation Research. *Bridging the Gap: Empirical Research in Simultaneous Interpretation*. John Benjamins Publishing Company: Noord-Holland, NN, USA. pp. 39–57.
- [22] Kohn, K., Kalina, S., 1996. The Strategic Dimension of Interpreting. *Meta*. 41(1), 118–138.
- [23] Kurz, I., 2003. Physiological Stress During Simultaneous Interpreting: A Comparison of Experts and Novices. *The Interpreters' Newsletter*. 12, 51–68.
- [24] Lederer, M., 2002. Simultaneous Interpretation: Units of Meaning and Other Features. In: Pöchhacker, F., Shlesinger, M. (Eds.). *The Interpreting Studies*. Routledge: London, UK; New York, NY, USA. pp. 130–140.
- [25] Bacigalupe, L.A., 2010. Information Processing During Simultaneous Interpretation: A Three-Tier Approach. *Perspectives: Studies in Translatology*. 18(1), 39–58.
- [26] ANOVA. One-Way Repeated Measures ANOVA Calculator. Available from: <https://www.socscistatistics.com/tests/anovarepeated/default.aspx> (cited 31 July 2024).
- [27] Kagan, Y.B., Shadrina, Y.Y., 2017. Probable Forecasting in the Course of Interpreting. *The Education and Science Journal*. 7(19), 137–156. DOI: <https://doi.org/10.17853/1994-5639-2017-7-137-156>
- [28] Simon, T., 2019. Exploring Difficulties in Simultaneous Interpreting Insights from the English-French Louvain Corpus of Simultaneous Interpretations. *Faculté de Philosophie, Arts et Lettres, Université Catholique de Louvain*. Available from: <http://hdl.handle.net/2078.1/thesis:21680> (cited 12 August 2024).
- [29] Gile, D., 2009. *Basic Concepts and Models for Interpreter and Translator Training*. John Benjamins Publishing Company: USA. p. 283.
- [30] Vshivkova, T.V., 2015. Experimental Modeling of Anticipation in the Understanding of Foreign Text. *Philological Sciences. Questions of the Theory and Practice*. 4(46), 44–47.
- [31] Payne, B.R., Silcox, J.W., 2019. Chapter Seven - Aging, Context Processing, and Comprehension. *Psychology of Learning and Motivation*. 71, 215–264. DOI: <https://doi.org/10.1016/bs.plm.2019.07.001>