EFFECT OF CORE WORKING MEMORY TRAINING ON CONSECUTIVE INTERPRETING

EFEITO DO TREINAMENTO DE MEMÓRIA DE TRABALHO CENTRAL NA INTERPRETAÇÃO CONSECUTIVA

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***ABSTRACT**: Interpreting seems to be one of the most demanding and complex language tasks, whose performance is dependent heavily on working memory (WM). This study attempts to examine the effect of WM training on the improvement of consecutive interpreting. To this end, 20 students of Translation Studies at Kashmar Higher Education Institute were selected. The participants' skill in interpretation was rated by implementing an interpretation scale. Then, all the participants received instructions on how to expand their WM capacity through core working memory training. The group went through another evaluation session after the treatment. The results were analyzed by running a paired sample t-test. It was found that WM capacity expansion exercises had a significant effect on the accuracy subscale whereas target language quality and delivery, the other two subscales, proved minor and no improvements, respectively. The findings of the present study can be used to train interpreters or even in any other of educational setting which requires attention and memory skills.*

***KEYWORDS**: Working memory, Working memory capacity, Consecutive interpreting, Core working memory training*

***RESUMO:** A interpretação parece ser uma das tarefas mais exigentes e complexas da linguagem, cujo desempenho depende fortemente da memória de trabalho (MO). Este estudo tenta examinar o efeito do treinamento WM na melhoria da interpretação consecutiva. Para tanto, foram selecionados 20 alunos do curso de Tradução do Kashmar Higher Education Institute. A habilidade de interpretação dos participantes foi avaliada pela implementação de uma escala de interpretação. Em seguida, todos os participantes receberam instruções sobre como expandir sua capacidade de MO por meio do treinamento da memória de trabalho central. O grupo passou por outra sessão de avaliação após o tratamento. Os resultados foram analisados executando um teste t de amostra emparelhada. Verificou-se que os exercícios de expansão da capacidade WM tiveram um efeito significativo na subescala de precisão, enquanto a qualidade e a entrega do idioma de destino, as outras duas subescalas, provaram ser pequenas e nenhuma melhoria, respectivamente. Os achados do presente estudo podem ser usados para treinar intérpretes ou mesmo em qualquer outro ambiente educacional que requeira atenção e habilidades de memória.*

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PALAVRAS-CHAVE: *Memória de trabalho, Capacidade da memória de trabalho, Interpretação consecutiva, Treinamento da memória de trabalho central.*

RESUMEN: *La interpretación parece ser una de las tareas lingüísticas más exigentes y complejas, cuyo rendimiento depende en gran medida de la memoria de trabajo (MT). Este estudio intenta examinar el efecto del entrenamiento de WM en la mejora de la interpretación consecutiva. Con este fin, se seleccionaron 20 estudiantes de Estudios de Traducción en el Instituto de Educación Superior de Kashmar. La habilidad de interpretación de los participantes se calificó mediante la implementación de una escala de interpretación. Luego, todos los participantes recibieron instrucciones sobre cómo expandir su capacidad de MT a través del entrenamiento de la memoria de trabajo central. El grupo pasó por otra sesión de evaluación después del tratamiento. Los resultados se analizaron ejecutando una prueba t de muestras pareadas. Se encontró que los ejercicios de expansión de la capacidad de WM tuvieron un efecto significativo en la subescala de precisión, mientras que la calidad y la entrega del idioma de destino, las otras dos subescalas, demostraron ser menores y no mejoraron, respectivamente. Los hallazgos del presente estudio se pueden utilizar para capacitar intérpretes o incluso en cualquier otro entorno educativo que requiera habilidades de atención y memoria.*

PALABRAS CLAVE: *Memoria de trabajo, Capacidad de la memoria de trabajo, Interpretación consecutiva, Entrenamiento de la memoria de trabajo básica.*

Introduction

Interpreting consists of presenting in the target language, the exact meaning of what is uttered in the source language either consecutively or simultaneously, preserving the tone of the speaker (Mahmoodzadeh, 1992). Whether novice or experienced, all interpreters find this profession demanding and challenging as they are required to have the ability to hold and retrieve language for the purpose of rendering. In fact, interpreting has been claimed to be a complex or high performance skill which requires intensive and appropriate practices to achieve expertise (Timarová et al., 2015, Dong et al., 2018).

Phelan (2001, p. 4) makes a reference to the qualifications essential for an interpreter and states that “the interpreter needs a good short-term memory to retain what he or she has just heard and a good long-term memory to put the information into context (Phelan, 2001). The interpreting task, according to Osaka (1994), has a significant relation to the listening span, indicating that interpreting task is highly influenced by that part of memory which is involved in receiving, processing and rendering information during interpreting, called working memory (Osaka, 1994).

Working memory, refering to a definition by Baddeley (1992, p. 556), has been defined as “a brain system that provides temporary storage and manipulation of the information

necessary for complex cognitive tasks"(Baddeley, 1999). This system is responsible for storage and manipulation of information in mind. Besides, WM is involved in the control and regulation of operating processes. Baddeley and Hitch (1974) model of WM is largely known to the researchers (Baddeley and Hitch, 1974). According to their model, WM consists of phonological loop, visual-spatial sketchpad and central executive. Working memory is primarily important in focusing attention, problem solving and following instructions.

Studies show that working memory capacity (WMC) can be expanded through well-designed exercises (Dahlstrom et al., 2005, Prins et al., 2011). Some studies conducted by Lustig et al. (2009) (Maki and Martin-Thormeyer, 2009) and Morrison and Chein (2011) (Morrison and Chein, 2011) indicated that WM training is highly promising, and can lead to WMC expansion.

Given the complex and demanding nature of interpreting which, to a great extent, relies on WM, many researchers have claimed that memory and attention skills are of significance role in the process of the task in question, such as Darò and Fabbro (1994) (Darò and Fabbro, 1994), Cowan (2000) (Cowan, 2000), and Hulme (2000) (Hulme, 2000), to name a few. However, due to sparse experimental data and also inconsistency in findings, it is difficult to draw any firm conclusion in such an early stage. Besides, most of the studies conducted are concerned with the idea of spotting the differences of WMC between interpreters and non-interpreters, or the relationship between WMC and the quality of skillful interpreters' performance (Köpke and Nespoulous, 2006, Timarová et al., 2015, Dong et al., 2018). In this sense, more research is required to shed light on the effect of the WM training and the task of interpreting. Therefore, by applying core training, the practice of continuous repetition of demanding memory tasks for the purpose of improving working memory performance, the current study was carried out in order to find answers to the following questions:

1. Is there any relationship between WM training and consecutive interpreting?
2. To what extent, can WM training affect the quality of consecutive interpreting in terms of three subcategories including accuracy, target language quality and delivery?

Background

The statement of having a good memory for an interpreter seems to be misleading as it refers to an interpreter's extraordinary ability to recall, in great detail, what they have acquired throughout several years of reading and learning. Although this kind of recall

can be regarded as a great privilege for anybody, it does, doubtlessly, not suffice for interpreting performance. Working in the moment, interpreters need to recall and recollect what other participants have just uttered in a communicative situation in which they are working. In this sense, a good WM is what they actually need.

The origins of WM can be related to the modern psychology. The concept of WM can be traced back to as early as William James'(1890) distinction of "primary" and "secondary memory" (James et al., 1890). To him, primary memory was the conscious present and secondary memory considered as the vast amount of information stored for a lifetime. In 1949, Hebb claimed that the brain is divided into separate storage systems: temporary and permanent. Over the past half century, several theories and models on memory mechanism have been proposed: the Atkinson-Shiffrin model (1968) (Atkinson and Shiffrin, 1968), and the Baddeley and Hitch model (1974) (Baddeley and Hitch, 1974), to name a few.

Working memory is "[a] component of memory which holds short-term information for the purposes of performing a current process" (Meara, 2004). WM refers to a cognitive model which was elaborated by Alan Baddeley, an experimental psychologist and Graham Hitch whose main concern has been memory research over the last two decades (Baddeley and Hitch, 1974). It is different from long-term memory, which is in charge of storing information for longer periods. WM can also be defined as the brain's ability to consecutively manipulate information in dealing with complex cognitive tasks, or simply, the ability to hold and process the discrete information in relation to what a person is doing at any given time. From the beginning it was thought that WM has a limited capacity, based on the definition construed upon Baddeley's view of WM (Baddeley, 1999, Baddeley and Hitch, 1994, Baddeley, 2003, Gathercole and Baddeley, 1993, Baddeley and Hitch, 1974), but following studies proved the probable expansion of working memory capacity in case of practice and manipulation of memory strategies.

Possibility of working memory capacity expansion (WMC)

The capacity of WM has been proposed to be restricted. Cowan (2001) asserts that a typical individual can only manipulate about four pieces of information at a time (Cowan, 2001). However, people show slight differences in WMC. Miller (1956) proposed that WMC is seven plus or minus two, that is, people can remember seven chunks of information at once (Miller, 1956). Following Miller's initial work, studies began to prove that reasoning, learning, and even handling stress are all related to a

healthy WMC. Some researchers have shown that WM training is highly promising (Lustig et al., 2009, Morrison and Chein, 2011). Klingberg et al. (2005) began studies to find ways if WMC could be expanded through training. They believe that WM could impact many different functions (Dahlstrom et al., 2005).

Strategies to expand WMC

A typical WM training program includes several WM-based tasks for 2-6 weeks. The training procedure involves repeated work by learners on their own (Morrison and Chein, 2011). Emphasis has always been on working memory's limited capacity to retain information while simultaneously it is involved in processing the information (Swanson et al., 1990).

For the apparent expansion of WM, there are some strategies such as subvocal verbal rehearsal, chunking, and organization (Minear and Shah, 2006). Subvocal verbal rehearsal refers to the conscious and effortful strategies, and often consists of more than simple repetition (Dehn, 2011). Chunking, another strategy, refers to the "grouping or clustering of discrete items into larger units". It is thought to be a process which occurs naturally, much like creating words out of phonemes. These trainings involve strategy training which is intended to teach effective approaches to encoding, maintenance, and retrieval from WM (Morrison and Chein, 2011). Learners are required to remember increasing amounts of information of a particular type. The emphasis is on retention of information. Some strategy training tasks involve reliance on and facility with articulatory rehearsal (Conners et al., 2008, Turley-Ames and Whitfield, 2003). Another technique to expand WMC is core training which involves repetition of demanding WM tasks that are designed to target domain-general WM mechanisms. The researchers have employed core working memory training techniques since it targets the Central Executive of working memory system, where attentional control regulates the flow of information into and from of brain. Central Executive is also in charge of filtering, updating and monitoring the audio and visuospatial information.

Core working memory training: A technique in WMC expansion

Core working memory training or simply core training involves repetition of demanding memory tasks which are demanding to the memory. This training is energy-consuming and effortful so that it could stimulate brain's information processing capacity by applying a high cognitive load, resulting in the neuroplasticity and health benefits.It

appears that core working memory training produces effects of widespread transfer, probably due to the fact that they attempt to exert changes on domain-general mechanisms of WM (Morrison and Chein, 2011). Some core training programs take the form of varying stimulus types to impact multiple components of WM system and consequently can lead to the improvement of WM performance (Holmes, Dahlstrom et al., 2005). Some studies have shown that memory traing can result in some degree of post-training cognitive improvements.

Relevant studies of WM and consecutive interpreting

The highly legitimate hypothesis that memory and attention skills play a major role in the process of interpreting, in particular simultaneous, has been discussed by many authors and interesting predictions have been made (Darò and Fabbro, 1994, Padilla, 1995, Cowan, 2000, Hulme, 2000, Signorelli, 2008, Signorelli et al., 2012, Morales et al., 2015).

In contrast to simultaneous interpreting, experimental research into working memory and consecutive interpreting has been sparse (Köpke and Nespoulous, 2006, Timarová et al., 2015). As mentioned before, most of them, however, investigate the differences of WMC between interpreters and non-interpreters, or the relationship between WMC and the quality of skillful interpreters' performance. Also, there are researchers like Mahmoudzadeh (1992) who takes the influential role of working memory on consecutive interpreting performance for granted and offers techniques to improve interpreters' performance (Mahmoodzadeh, 1992). Yet, the few experimental data are still far from any definitive conclusion. It is worth noting that a most recent study conducted by Dong et al. (2018) has readdressed the issue in question from a different angle, i.e. the influence of consecutive interpreting training on working memory (Dong et al., 2018). The study has concluded that updating efficiency is more central to the consecutive interpreting task than WMC, at least for beginning student interpreters, and is therefore more exercised in consecutive interpreting training, leading to an interpreter advantage in updating efficiency.

Methodology

Participants

A total of 20 students with an average age of 21 (M=21.86) from both genders, studying as juniors in translation studies in Higher Education Center of Kashmar took part in this

research. In order for the researchers to select the target group, an Oxford Placement Test was used to create a homogeneous group of participants who had recently started to receive trainig as consecutive interpreters.

Materials

The researchers used some unheard audio files which were compatible with participants' level of language proficiency. These files were to get translated into Persian consecutively both before and after the treatment.

Oxford Placement Test

In order to create a homogeneous group, the researchers used this test to select participants of the same level in language proficiency.

Interpretation scale

The researchers applied a rating scale both before and after the treatment period. The researchers closely observed the participant's behavior and interpretation quality based on the scale in order to evaluate interpreters' performance in consecutive interpretation. The rating scale (see appendix, table 1) applied in this study was the one proposed by Lee (2008) (Lee, 2008). Accuracy, target language (TL) quality and delivery are three subcategories of this scale as the criteria for rating interpreting performance. The first item "accuracy" is based on the principle of equivalent effect, i.e. there should be a substantially similar relationship between the produced target form and the original message and that which was present between the source reader and the message. The quality of the rendition in terms of linguistic 'correctness', naturalness, and contextual appropriateness of language are assessed by TL quality which takes into account the features of grammaticality, morphology, phonology, syntax, style, register and naturalness. Delivery is the last category in this scale, the assessment of which has nothing to do with the source text or knowledge of the source language. The components of this category encapsulates skills such as good public speaking and presentation and effective communication. In this criterion, articulation, smooth delivery and good voice projection are assessed. Eye contact and posture are important public speaking skills.

To assess the participants' performance, an analytic scale was used in this rating scale, that is, six bands were assigned for accuracy and target language (TL) quality and three bands for delivery, making 80% weight for the first two and a 20% weight for the last criterion. The bands range from mastery of skill (6) to the lowest level of quality (1), and band 0 was included for 'test abandonment'. An aggregated score of all three

categories – ranged from 0 to 15 – was reported by the raters for each participant (See Appendix).

Study procedure

A number of 40 volunteer students registered for the study. The target group was created using Oxford Placement Test, resulting in 20 participants. Then each participant was exposed to some audio files. Participants' performance was closely recorded and rated. Then, in a period of five weeks in ten sessions, they received WM training. The training was mostly focused on core working memory training which included repetition, rehearsal, visualization and concentration tasks. Having completed the training sessions, participants took part in another session during which their skills in consecutive interpreting were rated. Using a paired sample t-test, the results were analyzed, using SPSS (ver.18).

Results and discussion

Table 1 presents summative rating of consecutive interpreting rating both before and after the treatment. As pointed out, with the use of the scale, the researchers managed to evaluate the participants' performance both before and after the treatment. The numbers – ranged from 0 to 15 – represent an average of the ratings presented by both observers before and after the treatment.

Table 1. Results of summative rating of consecutive interpreting before and after the treatment

	Participants	Before treatment	After treatment
1	A	7	9
2	B	10	13
3	C	9	12
4	D	13	15
5	E	6	8
6	F	13	15
7	G	11	13
8	H	9	11
9	I	10	12
10	J	12	13
11	K	11	12
12	L	7	10
13	M	10	11
14	N	11	12
15	O	12	13
16	P	13	13
17	Q	9	10

18	R	11	12
19	S	7	8
20	T	7	12

Table 2 provides descriptive statistics on summative rating of consecutive interpreting. Here, the mean score for before the treatment (M = 9.90, SD = 2.22) was significantly higher than that for after the treatment (M = 11.70, SD = 1.94). In order to find if this difference is significant, paired sample t-test was conducted. The results are provided in Table 3.

Table 2. Descriptive Statistics of summative rating of consecutive interpreting

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
BEFORE	20	6.00	13.00	9.90	2.22	4.93
AFTER	20	8.00	15.00	11.70	1.94	3.80

Table 3. Paired Sample t-Test for summative rating of consecutive interpreting

		Paired Differences				t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			
					Lower	Upper			
Pair 1	BEFORE - AFTER	-1.80	1.10	0.24	-2.31	-1.28	-7.28	19	0.00

Table 3 (see appendix) indicates that there is a significant difference between participants' performance before and after the treatment, that is, their general performance improved, having received treatment. In order to find detailed analysis of interpretation before and after the treatment, the subscales of *Accuracy* (range from 0 to 6), *Target Language (TL) quality* (range from 0 to 6) and *Delivery* (range from 0 to 3) were recorded, the results of which are provided in table 4.

Table 4. Results of detailed rating of consecutive interpreting in terms of *Accuracy*, *TL quality* and *Delivery* before and after the treatment

		Accuracy		TL quality		Delivery	
	Participants	Before*	After**	Before	After	Before	After
1	A	4	6	2	2	1	1
2	B	4	5	3	5	3	3
3	C	3	5	4	4	2	3
4	D	5	6	5	6	3	3

5	E	3	5	2	2	1	1
6	F	5	6	5	6	3	3
7	G	4	6	4	4	3	3
8	H	3	5	4	4	2	2
9	I	4	6	3	3	3	3
10	J	4	6	5	5	3	3
11	K	4	5	4	4	3	3
12	L	3	5	3	3	1	2
13	M	3	4	4	4	3	3
14	N	4	5	4	4	3	3
15	O	4	6	5	5	2	2
16	P	6	6	5	5	2	2
17	Q	3	4	3	3	3	3
18	R	4	5	4	4	3	3
19	S	2	3	3	3	2	2
20	T	2	5	3	4	2	2

Before*: Before the treatment
After**: After the treatment

Table 5 provides descriptive statistics on the three subscales namely accuracy (Acc.), target language quality (TLQ), and delivery (Del).

The results in Table 5 show that there was a difference in the scores for accuracy before the treatment (M= 3.70, SD=.97) and after the treatment (M=5.20, SD=.83). As shown, it is inferred that the mean score after the treatment is much greater than that before the treatment for accuracy (Acc.) (3.70<5.20); the same result is true for target language quality (TLQ) but the difference is not noticeable in this regard (3.75< 4), where the results for before and after the treatment are (M= 3.75, SD=.96) and (M=4.00, SD= 1.12), respectively. As with delivery the least difference is found (.10) where the means for delivery before and after the treatment are 2.40 and 2.50, respectively.

In order to find if the differences are significant, paired-sample t-test was run. The results in Table 6 (see appendix) indicate that there was a significant difference between participants' performance before and after the treatment; t (19) = 9.47, p =.00). It can be implied that accuracy can be improved once participants receive treatments on WM expansion.

Table 5. Descriptive statistics on detailed scaling of interpretation in terms of Accuracy (Acc.), target language quality (TLQ), and delivery (Del) for before and after the treatment.

	N	Min	Max	Mean	SD	Variance	Skewness	Kurtosis
Acc. Before	20	2.00	6.00	3.70	0.97	0.95	0.30	0.54
Acc. After	20	3.00	6.00	5.20	0.83	0.69	-1.01	1.08

TLQ Before	20	2.00	5.00	3.75	0.96	0.93	-0.21	-0.81
TLQ After	20	2.00	6.00	4.00	1.12	1.26	0.00	-0.27
Del. Before	20	1.00	3.00	2.40	0.75	0.56	-0.85	-0.60
Del After	20	1.00	3.00	2.50	0.68	0.47	-1.07	0.08

Table 6. Paired Samples Test on accuracy (Acc.) before and after the treatment

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Acc.Before - Acc.After	-1.50	0.68	0.15	-1.82	-1.17	-9.74	19	0.00

In order to confirm whether working memory training can improve target language quality (TLQ), the following results are provided. As shown in Table 7(see appendix), there has been a mean difference before and after the treatment (.25), but the difference is not significant; t (19) = -2.03, p =0.56).

Table 7. Paired Samples Test on Target language quality (TLQ) before and after the treatment

		Paired Differences					t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	TLQBefore - TLQAfter	-.25	.55	.12	-.50	.00	-2.03	19	.05

Finally, paired-sample t-test was run to check whether participants performed differently with regard to language delivery (DEL), before and after the treatment. The results are shown in Table 8 (see appendix).

As shown, no significant difference is seen for delivery before and after the treatment; t (19) =1.4, p=.16). Therefore, it can be concluded that treatment had no

effect on participants' performance with regard to delivery, before and after the treatment.

Conclusion

To summarize findings, it is evident that the exercises practiced by participants were useful in the improvement of consecutive interpreting. Since all the exercises had been devised in order to improve WMC, one possible conclusion is that WM expansion practices can directly influence the quality of consecutive interpreting. As already mentioned, four central strategies were applied to intervene in the process of working memory functioning, namely repetition, rehearsal, visualization and concentration tasks. The first two are related to phonological loop, and the last two tasks are concerned with attention skills.

Based on the findings of this study, it was found that WM intervention can influence the quality of consecutive interpretation in general. In order to exactly locate where these exercises could exert changes, the researchers exploited the rating scale proposed by Lee (2008) which is composed of three subcategories, accuracy, target language (TL) quality and delivery. The first item "accuracy" implies the extent to which the interpreted rendition is dynamically the same as the source speech. It appears that expansion of working memory capacity is related to the ability of verbatim rendering through which the interpreter is capable enough to hold and faithfully utter the intended target equivalent. Concerning the second subcategory, target language quality (TL) which represents linguistic features such as grammaticality, morphology, phonology, syntax, style, register and naturalness, the results indicated trivial differences in interpretation before and after the treatment. Therefore, it can be concluded that WM expansion exercises can, to some extent, increase these linguistic features. Should more intense and elaborate practices get implemented, a bit more disputable results could arise. This issue renders itself to further research. The last subcategory, delivery, which encompasses skills such as good public speaking and presentation and effective

Table 8. Paired Samples Test on Delivery (Del) before and after the treatment

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	DELBefore - DELAfter	-.10	.30	.06	-.24	.04	-1.4	19	.16

communication, shows no improvement, after the treatment. It goes without saying that speech delivery skills such as voice projection, eye contact and appropriate body posture has nothing to do with memory expansion. The raters considered items of significance in both working memory and consecutive interpreting. Their main focus was to find whether memory intervention had effects on their interpreting performance. One point which merits noting is that since the observations were based on personal views, the results could run the danger of misinterpretation, thus yielding fake or unreal scoring which would ultimately lead to misleading conclusions. To remove any possibility of such incorrect outcomes, it is suggested that rating be practiced with the involvement of more observers. To the researchers view, the scarcity of experiments conducted in this field has brought about conditions not convergent to a unified conclusion. In fact, the relationship between WM intervention and interpreting performance is still ambiguous and controversial. There are a few studies which have yielded results which are in line with those of the current study, including a study conducted by Padilla Benitez (1995). The discrepancies seen in study results pinpoint the requirement of more studies in this field in order to get a more convincing conclusion.

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Appendix A

CRITERIA (EXAMPLES)	BAND	EXTENT OF FAITHFUL DELIVERY OF MESSAGE	LISTENING ABILITY
Accuracy: - the quality of faithfully conveying the message of the speech with semantic and pragmatic equivalence i.e. reproducing the same meaning and intended effect - Deviations from the ST should be considered in terms of the effect on the coherence/logic and faithful rendering of the message - Examples of deviations: omissions, additions, and unjustifiable changes of the meaning	6	The message was delivered accurately with intended effect.	Complete understanding of the message of the original speech
	5	The message was generally delivered with intended effect but a few minor deviations from the source text were found, which did not significantly affect the overall meaning or coherence.	Good understanding of the message of the original speech
	4	The overall message was delivered but some deviations from the source text with an impact on the meaning and effect but coherence was maintained.	Adequate understanding of the message of the original speech
	3	The message was delivered inaccurately with many deviations from the source text and coherence was compromised.	Inadequate understanding of the message of the original speech
	2	The message was delivered inaccurately with serious deviations from the source text and incoherence.	Poor understanding of the message of the original speech
	1	The interpreted message was incoherent and completely inconsistent with the source text.	Very limited understanding of the message of the original speech
	0	Test abandoned/unfinished.	
	Mark /6		
CRITERIA (EXAMPLES)	**BAND**	**GRADUATION OF TARGET LANGUAGE PRODUCTION**	**TARGET LANGUAGE PROFICIENCY**
TL Quality: - the quality of rendering in TL needs to be linguistically correct and appropriate in	6	Excellent target language production with few linguistic errors and appropriate target language expressions.	Excellent language
	5	Very good target language production with a few minor linguistic errors that do not hinder immediate	Very good language proficiency

the context Examples of deviations from language norms : incorrect pronunciation, accent, and stress; incorrect grammar; unidiomatic language; interference from the source language; inappropriate language in the target culture and for the target audience (register misuse)		target language comprehension and generally appropriate target language expressions.	
	4	Good target language production with a few linguistic errors that may hinder immediate comprehension, but quite understandable. A few minor inappropriate target language expressions were found.	Good language proficiency
	3	Adequate target language production with some linguistic errors that hinder comprehension and some inappropriate target language expressions.	Adequate language Proficiency
	2	Inadequate target language production with many linguistic errors and inappropriate target language expressions were consistently found.	Inadequate language proficiency
	1	Poor target language production with inappropriate target language expressions	Poor language proficiency
	0	Test abandoned/unfinished	
	Mark		/6
CRITERIA PUBLIC	**BAND**	**(EXAMPLES) EXTENT OF DELIVERY**	**SPEAKING ABILITY**
Delivery: - quality of good public speaking - successful communication Examples of deviations: inarticulate speech, pauses, hesitation, false starts, fillers, irritating noise, repetition, excessive repairs or self - correction, unconvincing	3	Excellent delivery with few deviations	Excellent presentation/communication
	2	Good delivery with a few deviations	Good presentation/communication
	1	Poor delivery with some deviations	Poor presentation/communication
	0	Test abandoned/unfinished	
	Mark		/3

voice quality and monotonous intonation,& irritatingly slow speech rate		
Total mark	/15	